SOCIETY 5.0

LEADING IN THE BORDERLESS WORLD

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Spirituality and Humanity to Prepare for Technological Advancement in Society 5.0

Nowadays, with a face paced development of science and technology, we are surrounded by innovation in enabling technologies such as Artificial Intelligence (AI), Internet of Things (IoT) and robotics. Many scientist and expert are concerned if someday this technology is no longer helping people but mutated into a technological monster. With that possibility of the technology take over humanity, Japanese government announced the term society 5.0. The concept of society 5.0 is presented by Japanese cabinet in January 2016 as a core concept for their basis of economic and policy management. It also aimed for the investment of the future of mankind. It is aimed to balance the technology with a human centred approach. A study has outlined how this human centred society is envisioned to be aligned with Sustainable Development Goals (SDG such as ending poverty through Ed-Tech (Education Technology) or through AgriTech (Shiroishi et al., 2018).

Indonesia as a country with the 4th largest population in the world has not yet fully aware with human centred approach for technologies. Yes, it is true that our younger generation, millennial and generation Z begin to develop and utilize IoT and AI. For instance, the development of e-Fisheries with an aim to help fisherman automatically feeding their fishes in due time with a sensory intelligence machine. However, the utilization of those technology is far more behind those in developed country. Indonesia is still on their 4.0 stage. While we are still in the beginning of 4.0, it is important to considered what we valued the most to prepare for 5.0 : our construction of spirituality and humanity.

As a country with five major religion, and our first Pancasila stated to "Believed in God", the construction of spirituality is very important. Spirituality comes from within us that we have a higher calling to do what's good, what's moral, and what not from our belief system. By

standing on these main principals of being a Moslem, we are keen on walking ahead to face the development of the technology without worry.

In preparing for the society 5.0, it is necessary for us to have a strong principle at hearts that based on our belief system. When we possess a strong spirituality, we have a tendency to be kind to other people. Kindness is the basis of practicing humanity. When we are not judging why someone do what they do, but rather inquire why, we value them as a human. Therefore, we practice humanity.

To face technological advancement, we do not need to be smarter than the technology. As its purpose is smarter than us, to help us, we are human, need to construct our spirituality and the humanity so that we won't be lost in the advancement of technology. We stand by our principle to face a fast-changing world driven by technologies. We will be a far more superior than those enabling technologies by instilling what we had all along, our belief and our ability to be kind.

Diah Karmiyati

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A.Ifayani Haanurat[1], Ifadhila[2]

Introduction

The development of technology during the Covid-19 pandemic is happenign so fast over time, this can be seen from the use of the internet in Indonesia up to the second quarter of 2020 showing the number 175.5 million or an increase of 25 million compared to 2019, or increase 17% increasing.[1] The rapid development of technology has certainly influenced both developed and developing countries to make changes, and in early 2019, Japan as the country that first put forward a vision of 5.0 society. The era of 5.0 society is a continuation of the era of information technology 4.0, where the role of society is still lacking, because it is created a technology-based human-centered society.[2][3]

The use of technology in the era of society 5.0 is a combination of artificial intelligence (AI) users who will transform big data in all aspects of life that will provide support for everyday human activities, as well as the internet of things (IoT) which provides opportunities for living a life including improving health, education and of course the use of technology in business.[4][5] One of the most appropriate uses of technology in business during this Covid-19 pandemic is the use of digital technology in finance and investment, namely financial technology (Fintech).

However, the phenomena that exist along with the growth of Fintech, namely the complaints of problems received by the Indonesian Consumers Foundation (YLKI) and complaints to the Legal Aid Institute (LBH). YLKI has received many complaints about billing methods and the existence of high interest calculations,[6] besides that,

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until November 2018 LBH received 818 complaints or received reports of approximately 20% of Fintech companies who violated it, including those from legal and illegal.[7] Related to this phenomenon, it will focus on equity crowdfunding (ECF) because it is different from other Fintech concepts where investors get returns in the form of interest and a return on loan principal at period, whereas at ECF the funds are given in the form of equity participation and investors will later get returns in the form of dividends and become issuers' shareholders indefinitely. [8][9] ECF is a crowdfunding service that is right for businesses that are still focused on growth.[9], crowdfunding is a mutual assistance system that is in line with the concept of Islamic Economics, namely *ta'awun* (Kindness). Therefore, this paper wants to describe the use of ECF for business startups during the Covid-19 pandemic to get to the balance of 5.0 society in an Islamic economic perspective. ECF is a crowdfunding service that is appropriate for businesses that are still focused on growth.[9], crowdfunding is a mutual assistance system that is in line with the concept of Islamic Economics, namely *ta'awun* (Kindness). Therefore, this paper wants to describe the use of ECF for business startups during the Covid-19 pandemic to get to the balance of society 5.0 in an Islamic economic perspective. ECF is a crowdfunding service that is right for businesses that are still focused on growth.[9], crowdfunding is a mutual assistance system that is in line with the concept of Islamic Economics, namely *ta'awun* (Kindness). Therefore, this paper wants to describe the use of ECF for business startups during the Covid-19 pandemic to get to the balance of society 5.0 in an Islamic economic perspective.

Discussion

The era of 5.0 society they began to be discussed to solve problems that exist in the industrial era 4.0, namely there is still a distance between humans and technology so that there is an imbalance in technological development and community welfare. So the goal of society 5.0 is to remove the boundaries between technology and humans, so that people can enjoy life to the fullest or human centric society, so that economic growth and technological development will focus on the overall human aspect, not only by a few people, but to contribute to solving society's problems in each country.[10][11][12] This is of course in line with the concept of *kaffah* (immersion) in Islamic economics, that is in

economic growth and prosperity there must be a comprehensive or holistic and integrated balance.

Balance towards Era 5.0 Society

The Japanese government as a country that has a vision of a future society or society 5.0 from the start seeks to prove that its economic development continues to advance despite the problem of aging society (a decrease in the birth rate and an increase in the number of elderly people). This vision is manifested in two excellent programs, namely abundant *Mahadata* and *Monozukuri*. *Mahadata* is exemplified in developing public health services and manufacturing hospital equipment from the operationalization of patient data, while *monozukuri* is the main aspect of research and development (R&D) which is carried out on an ongoing basis that will support the industry, including production and distribution to consumers.[13][14][12][15]

The discussion a certainly requires higher education institutions in Indonesia to prepare graduates who are more competitive and as preparation for the era of 5.0 society, and in fact Islamic teachings have suggested making changes to always add knowledge and istiqomah or to be consistent in making innovations as implied in *QS. Ar-Ra'd* verse 11, which means "verily Allah will not change the condition of a people before they change their own condition". The meaning of this verse is that Allah SWT has called on Muslims to have massive change competencies by increasing creativity and innovation, both in individuals and groups of society.

Higher education is challenging and has the opportunity to produce graduates who are able to compete in the era of the Industrial Revolution 4.0 and 5.0 society because the potential workforce will increase until 2025 which reaches 2.1 million new job fields.[15] For this reason, universities can innovate in compiling a new orientation curriculum in the form of new literacy implementation, including data literacy or the ability to analyze big data information, technological literacy by understanding coding and artificial intelligence (AI), and human literacy which aims to make humans more functioning in their environment, so that it becomes humanities and communicative because it requires leadership and team work, cultural agility and social entrepreneurship. [3] Besides, the implementation of social entrepreneurship.

Alternative ECF Funding for startup businesses to face the 5.0 era

The development of technology plays an important role in the growth of the digital economy in the startup business with new innovations through its products and services, therefore the presence of the startup business really supports the creation of a balance towards the era of 5.0 society by providing solutions and contributions to problems and challenges faced by society, can also help improve economic quality by helping empower people.

Problems resolved by the presence of startup businesses are not only business to consumer (B2C) but also business to business (B2B) according to the products and services provided. Even the digital economy is able to provide business opportunities of around 5.7 million new jobs, and contribute to Indonesia's GDP in 2018 by 5.5% or 8.14 Trillion IDR, and in 2019 it provides a valuation of up to $ 40 billion, and is predicted to reach up by 2025 with $ 130 Billion.[16] For startup businesses that are still focused on growth or growth can make Fintech equity crowdfunding an alternative funding, and this funding system has received regulatory legality from the Financial Services Authority on December 31, 2018 with Number 37 / POJK.04 / 2018.

Equity crowdfunding or crowdfunding services are a method that facilitates business people who need capital with investors through an intermediation company, therefore this system carries out the nature and purpose of mutual cooperation or help.[17][18][9] In Islamic economics please help or ta'awun is a recommended attitude as indicated in the QS. Al-Ma'idah (5) verse 2, namely as Muslims are obliged to help in doing goodness and deed, and do not help each other in committing sins and violations, and are ordered to leave what forbidden by Allah. So it is clear that this goal is in lie with the objectives of Islamic teachings or *Maqashid al-Shari'ah al-Islamiyyah*, namely *hifz al-nafs* or caring for the soul, and *hifz al-mal* or maintaining property.

ECF funding can be an alternative consideration for startup businesses, because it is relatively cheap, and is in line with sharia principles because it does not burden interest and principal payments obligations. [19] Fundraising companies only offer shares of shares issued by startup companies as compensation for the investment they make meaning that investors will get part of the ownership of the startup company, also receive returns in the form of dividends and capital gains according to the size of

their shares.[17] In ECF funding, there are three stakeholders involved, namely first, companies that need funds or also called business actors or issuers, second, fundraising companies or intermediary or administering institutions known as crowd funding platforms, third, investors known as backers, the correlation scheme can be seen in Figure 1.1.
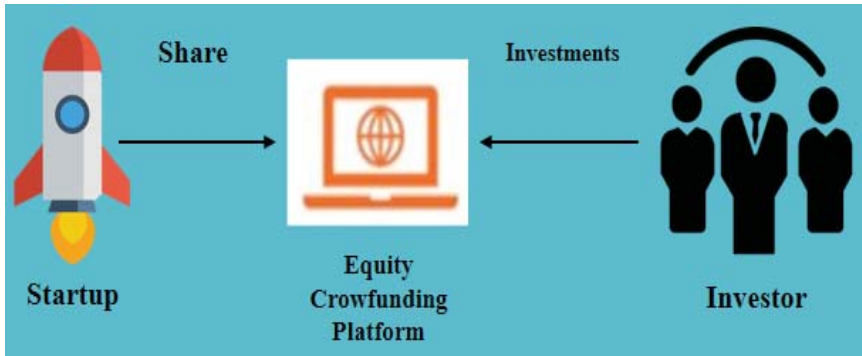
Figure 1.1. Stakeholder equity crowdfunding scheme

Of course all types of funding and investment have risks, as well as with ECF, risks that can be found in the form of liquidity risk, operational risk and investment risk, but this risk can be mitigated to minimize potential losses to investors by ensuring the platform used has received permission and legality from OJK, because this is a long-term investment, it is advisable to understand the business and assets to be purchased or invested, understand the track record and focus of the platform to be used, besides that it is necessary to know that there are three platforms registered and recognized by OJK until June 2020, namely Santara, Crowdana and Bizhare. According to data provided by KSEI in the first week of April 2020, the Santara platform has recorded a collection of funds of 38 billion IDR distributed to 32 publishers, as for the total fundraising from 7920 investors both in Indonesia and abroad, with this high growth, Santara became the market leader in the ECF industry in this country, especially for distribution of funds, the number of publishers and the number of users.[20]

Conclusion

Collaboration and integration of higher education with government, industry, community and mass media is the overall or Pentahelix concept, it needs to be implemented properly in order to support government programs as an independent learning campus.

The concept of Pentahelix is one of the keys to the success of the startup business to achieve a balance in the era of society 5.0, in achieving holistic economic growth and prosperity. Holistic welfare in the concept of Islamic economics is called *Falah*, which is a balance between material-spiritual, individual-social and welfare in the world and the hereafter.

Doing business or trading is an activity to mobilize all potential, which of course aims to get sustenance, as the Prophet said, that nine out of ten sustenance is contained in the business of trading and a tenth of it is in the business of raising livestock (*HR. Ibnu Mashuur*). Even trading is mentioned several times in the Koran, including in the *QS.Al-Baqarah*: 198, *QS. An-Nisa'*: 29, and QS. *Al-Jumu'ah*: 10-11. In *QS. An-Nisa'*: 29 mentioned the word *an taradhin minkum* which means commerce which is carried out on the basis of voluntary and consensual transactions in buying and selling, and is *kaffah*, this is an important point because it offers a balance between individual and community values, and creativity and activity not to detrimental to the interests of others, especially doing business in the digital era such as implementation of Equity crowd funding.

As an entrepreneur who runs a business, whether it's a startup or a scale-up business, independence is needed, and this independence is built by the four character stages that the Rasulullah has exemplified since the beginning, namely: integrity, which is the main basis for doing business, namely maintaining the character of honesty. Honesty can only be built from ourselves so that kindness can radiate and give people confidence in us; Loyality, this is related to long-term loyalty and commitment; professionalism; spirituality. These four characters are the correct business strategy and are able to build consumer trust, this has also been taught by the Rasulullah. Since more than 15 centuries ago, depicted in SIFAT. Siddiq (true and honest), *istiqomah* (consistent), *fathonah* (intelligent), *amanah* (trustworthy/credible), *tabligh* (communicative), these moral values are general truth, across time, religion and culture. Therefore, whatever type of business is carried out, moral values must be maintained.

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Measuring National Life Justice Based
Abustan[1]

Introduction

To maintain social cohesion in the midst of the Covid-19 pandemic, social life through public solidarity needs to be continuously developed. Therefore, responding to the grip of the corona virus outbreak or commonly known as Covid-19, does require attention (good will) and strengthening empathy among all the nation's children. Not the other way around, presenting a situation of uproar or clash with the political elite. This can be seen, when a number of bills are deemed to have "silenced" their argumentative capacity, and indicate very strongly that they only reinforce injustice for the little people (lower strata). This constellation, it cannot be denied that the dynamics of our democracy are increasingly linear. It is dwarfed by the deadly "scuffling" combination of growing feudalistic characteristics and an egoism that worships the "iron fist" of power. In fact, in fact, the deepest root of this chaotic life of the nation and state, does not lie in the side of legal problems (regulations) and the large number of infrastructure developments. However, it lies in the matter of mind, heart, and equality based on justice. Value is what is considered lost or uprooted from its roots. In fact, what is visible now is the spirit that puts forward the interests of the group which in turn leads to authoritarian coercion, thus neglecting citizenship freedom to express their opinions (civil liberty) which is only fighting for the good of living together with common good [1].

In that context, of course we ask where is the interaction, relationship and cohesion of the efficacy of the Panca Sila spirit to overcome the chaos of justice in the life of the nation lately? With the principle of unity, the state protects the entire nation and all Indonesian blood. Underlining the rationality of unity which affirms that the State stands above the community of all interests, not only the interests of individuals or groups which create discrimination and lead

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to the injustice of national life. More than that, even with democracy to be carried out through the rule of law. This understanding is often not seen objectively nowadays, considering that the notion of a rule of law is only seen in a dead text in the form of a law. In the end, the state is no longer in the form of a constitutional state but is a constitutional state, so that it is the law-making institution that has the domination of power in a country, including unilaterally interpreting and monopolizing the meaning of existing rules [2].

This is where a complete understanding is needed in the implementation of the rule of law as a real form of legal practice (das sollen), so that it does not give different interpretations (multiple interpretations) between those who run and the people in the law enforcement process. Thus, the distribution of justice is truly felt by all Indonesian people [3] With such basic assumptions, the effort to nourish the life of the nation does not lie in the pile of legal rules by constantly changing procedures through the "broomstick" law, but it needs to heal its mental side. In a sense, it requires some kind of spiritual power to glue back the mess of life that has been torn apart by the injustice itself. Therefore, we must keep moving and mingling with all the diversity in the public space. This involvement in the public sphere requires strengthening bonds of solidarity based on freedom, equality and brotherhood that generate public emotions. The bond of solidarity is in the form of a set of shared beliefs, values, ethics and rituals which are often referred to as civil religion. Whereas every citizen, apart from being an independent person (independent), must also be able to unite in a collective attitude by removing the barriers of citizenship, under the guidance of civil religion that can lead the nation to the good and happiness of living together [4].

Above all, it confirms to us that the order of national life without the values of justice and truth will continue to reap the dis-stability and dis-harmony of life. Because in fact the order of state conditions requires conditions of life with coolness / peace. It was the same when Franklin D. Roosevelt gave birth to social transformation by giving birth to four freedoms, namely freedom of opinion, freedom of religion, freedom from poverty and social inequality. Everything is a record and agenda for the United States in carrying out the law with the dimension of justice. The discourse regarding the above matter becomes the trigger factor or the underlying factor is the justice factor. Meanwhile, justice does not

just exist immediately but is operationalized by the law itself. The law at this point is not only seen as a dead text (balck letter), but is integrated with new legal issues with juridical elements that cannot be isolated from social and scientific developments / changes. The enforcement of the rule of law (rule of law) remains firm while accommodating the development of new justice-based laws. Finally, we must continue to strive to show truth, honesty and openness (transparency) as absolute prerequisites for upholding justice in national life. Therefore, if we want to save the future of the Indonesian nation we must encourage change in society. Paradigm change, of course by building a legal, democratic and economic system that is strong, clean and just. Discussion The term justice means placing something in its place and giving what is due, which is based on the principle that all people are equal before the law. Thus, the most basic demand of justice is to provide treatment and provide equal opportunity (equality and fairness) to everyone. Therefore, someone who carries out a duty or profession in the field of law who has the responsibility of enforcing a fair and correct law must always act fairly without discriminating against people [5]. In view of various studies and developing thoughts. Theo Huijbers' study shows that there are two understandings regarding the relationship between "Law and Justice". In understanding the flow of natural law philosophy reflects a view that justice lies in the essence of law.

That way law equals justice, then law that is not not law [6]. Even Thomas Aquinas stated that every person is morally bound only to obey the just law, and not to the unjust law. [7]. Justice is closely related to law. That is why there are people who think that law must be combined with justice, in order to truly be meaningful as law. This statement has something to do with the response that law is a part of human efforts to create an ethical consistency in this world. This condition is realized, only through a just legal system can people live peacefully away from the "messy" of life, towards a physical and spiritual welfare. This truth is most evident in using the word "ius" to denote true law. However, the expression "The rule of law" has the same background, namely the ideals of justice [8]. Therefore, justice is one of the objectives of law apart from legal certainty itself and also legal benefits. Although, in the realm of legal philosophy until now there is still a debate about what is the meaning of just. Justice itself is related to the equitable distribution of human rights and obligations.

The basic concept of law actually speaks to two contexts of the problem: 1. The first context is justice which concerns the community's need for a sense of justice amidst the many dynamics and conflicts in the community. 2. The second context is the legality aspect concerning what is called positive law, namely a rule established by a legitimate State power and in its enforcement it can be enforced in the name of law. The two contexts of the problems mentioned above often clash, where sometimes the law is positive does not fully guarantee a sense of justice and on the other hand a sense of justice often has no legal certainty. To find a middle way (solution), the compromise is how to make all positive laws that exist always a reflection of the sense of justice itself [10]. According to Kahar Masyur, what is called fair is: 1. Fair is to put something in its place. 2. Fair is to receive rights without more and to give rights to others without less. 3. Fair is to give every right who has the right completely without more or less among others who are entitled in the same situation, and punishment of bad people or those who break the law, in accordance with their mistakes and violations [11].

Thomas Aquinas classifies justice into two, namely: 1. General justice, namely justice according to the will of the law which must be fulfilled in the public interest. 2. Special justice, namely justice based on the principle of equality or proportionality. Special justice can be divided or grouped into three, namely: a. Distributive justice (distributive justitia) is justice that is proportionally applied in the field of public law in general. For example, the state will only appoint a person to be a judge if that person has the skills to become a judge. b. Communicative justice is justice by equating achievement and counter-achievement. c. Vindicative justice is justice in terms of imposing punishment or compensation in a criminal act. A person is considered fair if he is sentenced to body or object in accordance with the amount of sentence (verdict) that has been determined for the criminal act he has committed [12].

As a historical phase, the value of justice continues to be debated and its manifestation is longed for from time to time. Likewis with the development of the existing legal system with the emergence of a modern legal system, as we are living now, the so-called technological era which is characterized by the rapid development of industrialization. In Satjipto Raharjo's observation, this is a response to the new (capitalist)

economic production system, because the old system can no longer serve developments and the impact of the operation of the capitalist economic system. Satjipto Raharjo also said that the processes of economic production which are capitalist in nature require a social order capable of creating social change that takes place well [13]. From the zeitgeist spirit, we realize that social change is a necessity (necessity). Those who realize that the change of a people will not occur until the people change the spiritual realm that radiates optimism (happiness). One of the reasons that is an element of human development as conveyed by Emile Durkheim is assessing that a force that exists in society is a form of strength that has a pattern that is not static but dynamic which always includes developments in meeting its element of needs [14]. Given that Indonesian society is a religious society, the path to development and existing social change can be pursued by strengthening religious ethos (elan vital). Indeed, there are cultural factors influenced by religion that are an obstacle to progress. However, several studies also show the important contribution of the belief factor to economic progress and democracy. Within the framework of social change, the bursting out of the religious spirit should not stop as an expression of formalism and street anger. On the contrary, religious passion must touch a more substantive depth, namely questioning the ethical-spiritual basis of the nation's progress. In this context, religion can play an important role in responding to existing social changes, if religious issues do not stop at what we believe, but especially what we done.

Thus, religion does not need to abandon its beliefs and rituals, but needs to emphasize more on the importance of a vision of spirituality and ethical commitment in the realm of society. The religious mode which ceases to be mere worship of the formalism of the practice of worship, without being able to explore the inner values of ethics-spirituality is just like a person screaming in the desert. Therefore, by learning from history, we can reflect on the importance of religious and cultural preconditions (mental-character) in dealing with social change. Even so, the type of mentality needed to adapt to change is the ability to adapt to existing technological advances. Therefore, the changes that are dragged down by the industrial revolution must be responded to with great fanfare. Past experiences with various discrimination, exploitation, and injustice must be sidelined to face such rapid, fluid

and catastrophic developments. Every great leap in the phase of change must not be held captive or held by the past. Bad habits to condemn the past by repeating it, not by going beyond it, so that behavior in exploring change always faces challenges and even obstacles. In fact, to go beyond the past, it takes a more progressive mental attitude and behavior in following the development of the rise of industry 4.0. The terminology of the industrial revolution 4.0 as a production process develops rapidly in both quantity and quality (production output).

This term was introduced around the mid-19th century by Friederich Engels and Louis AugusteBlanqui. In the present era, it has entered the fourth phase, where the dynamics and changes from phase to phase emphasize the articulate differences in the aspects of their benefits, uses, and uses. The first phase 1.0 is based on the focus of machine discovery which focuses on the production sector, while the second phase 2.0 begins to move to the stage of mass production which is integrated in quality control and standardization. Then the third phase of 3.0 entered the mass uniformity stage that started with computerized integration. Finally, we are now facing the fourth phase of 4.0, which has created / brought digitalization and automation which is a combination of the internet and manufacturing. In historical facts, referring to Alfin Toffler's opinion, the changes brought about by the first wave of agricultural revolution took thousands of years to adapt or adjust [15]. The second wave of the rise of industrial civilization spanned 300 years. Meanwhile, the current state of civilization is the third wave, namely information civilization in just a few decades because it is supported by advances in information and robotization. This era by Daniel Bell calls it The Post Industrial Society [16].

Based on the phase of change, the community always follows the current development with a spirit of solidarity. That is one of the basic strengths of society which has a pattern that is not static but dynamic which always includes developments in fulfilling the elements of its needs in the life of the nation. According to Emile Durkheim, society is binding because of the solidarity among its members. To explain about the development of different societies. Durkheim shows the existence of a society with mechanical solidarity and a society with organic solidarity. Mechanical solidarity bases the creation of society on a sense of attachment and a sense of unity among its members. Differences of opinion and deviations behavior is the opposite of solidarity. On

the other hand, in a society which is based on organic solidarity, the realization of society is based on the freedom of its members to carry out actions and to relate to one another, because of the social nature of humans, then this freedom does not lead to the destruction of society [17]. Thus, the various social changes that occur make the legal system also have to change, albeit in a hobbled way following the existing dynamics. In addition, another element that causes the law to change is the element of human culture itself. Humans in carrying out the principles of progress always make culture a standard instrument in their characteristics. Therefore, the legal means that exist in its form must take into account the changes that exist in society. If a rule of law only applies juridically, then it is most likely a dead rule (dode regel).

If it only applies sociologically, then the rule becomes a rule of force (dwangmaatregel). Then if it only applies philosophically, then maybe the rule is just an aspired law (ius constituendum). In developing countries, there are at least two factors that will urge the adoption of a progressive attitude towards law and its role in society, namely: (1) the desire to eliminate colonial heritage as soon as possible, and (2) the expectations that arise in society by achievement of independence. Therefore, there needs to be a change in the conservative legal thinking inherited from the government and the colonial education system with a legal thinking that pays more attention to the needs of the developing community [18]. The change in conservative thinking to sociological legal thinking by referring to existing social changes was spearheaded by Ehrlich who persistently socialized the concept of living law which is the key to his theory. With that concept, trying to state / emphasize that a positive law that is good (effective) is a law that is in accordance with the living law which is the inner order of society that reflects the values that live in it. The moral message that Ehrlich conveyed to legislators was that in producing rules / making laws one should pay attention to what lives in society as a product of social change [19].

Since then, the position of law has begun to receive serious and proportional attention from the political rulers of many countries and has begun to appear serious in placing the law as part of a comprehensive (comprehensive) development process. The sociological approach in legal science to revitalize law with the problems of socio-economic development in Indonesia was pioneered by Moochtar Kusumaatmadja. The concept is closely related to legal reform efforts, namely law as a

"tool for community reform". This is similar to the concept of "law is a tool of social engineering" which in Western countries was first popularized by the Pragmatig Legal Realism school. Like Hans Kelsen, Gustav Radbruch actually developed his thinking based on the views of Immanuel Kant. As has been stated in the previous discussion that in Kant's view, there are two areas in life, namely: the realm of facts and the realm of should. Gustav Radbruch's perspective links the field of fact to the field it should be. With the accumulation (merger) of both of them based on the idea that in fact in life there is a field that contains elements of fact (das sein) and elements that should be (das sollen). So, the two are actually connected and can be connected. According to Gustav Radbruch, the field that is able to draw a common thread between the two is culture. Culture in this framework, according to Gustav Radbruch, is the embodiment of values which are contained / contained aspects that are the field it should be.

In the real world which is a fact, which is reflected in human behavior and regulations. Thus, according to Gustav Radbruch, law reflects a culture which is a bridge between values and existing reality (reality). Therefore, according to Radbruch, the human will will not be as free as it is bound and / or inherent to values. Thus, once again in Gustav Radbruch's perspective, the rule of law is a combination variable (combination) of values that must be realized and reality that must not violate those values. The values that are embedded or contained in the law, according to Gustav Radbruch, are values with the dimension of justice. Therefore, in his view, the pursuit of justice must be manifested in real regulations [20]. For this reason, achieving justice requires at the same time the elements of "substantive justice" (referring to the results) and elements of "procedural justice" (fairness). This was also agreed by John Rawls so that the famous term from him emerged in the form of justice as fairness. If the element of fairness has been achieved, then justice has occurred [21]. Closing Based on the various descriptions that have been described, there are several important points that can be concluded. Whereas the chaos of legal, democratic, and economic injustice in the system of national life, so that it can cause the people to be marginalized / left behind and many still live in poverty.

In fact, not only that, but social disparities and inequalities still occur in all sectors. Therefore, if this dimension of justice does not become a serious concern of the in-casu government, state managers,

it could potentially trigger social conflicts which in turn create dis-harmony and dis-stability of the state. Such conditions, of course, were not the hopes or ideals that the founders of this country wanted. Because the thought of welfare since the beginning has resided in the minds of our founding fathers. The traces are still clear we can read in the constitution in Article 34 which reads: "The poor and neglected children are cared for by the state". Four times the amendments to the 1945 Constitution have not eliminated the "sacred" ideals of the nation which previously succeeded in fueling the spirit of armed resistance of the colonized people. On that basis, life together must continue to move to bring justice on a constitutional basis. Therefore, once again, whether a nation's life is fair or not, depends on whether the law has provided a value of obstruction in the form of certainty and justice. Indonesian homes that are more comfortable and shady for its citizens.

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Challenges of the Cooperative-UMKM Sector in Facing Industrial Revolution 4.0

Abustan[1]

Introduction

It cannot be denied that Indonesia has a very large wealth of natural and human resources. However, if in the past Indonesia's wealth was only enjoyed by colonialists, now Indonesia's wealth is only enjoyed by a handful of people. We are also threatened forever to become a middle-income country because our current economic strategy has failed to overcome the middle income trap or middle income trap [1]. In fact, the Indonesian State, in fact, could become a top class country. All Indonesian people are able to live in prosperity, free from poverty, inequality, and ignorance. In fact, this is our goal of independence, this is the goal of all components of the nation's children to have a state, to create prosperity. In the terminology of constitutional law, the term welfare state is known. This terminology is basically intended as a concept indicating the willingness of the founding fathers to meet the basic needs of their citizens. Thus, the welfare state is defined as the concept of government in which the state plays a key role in maintaining and advancing the economic and social welfare of its citizens [2].

In the context of the 1945 Constitution, the desire of the founders of the State to create a welfare state is reflected in the preamble to the 1945 Constitution of the Republic of Indonesia, in particular the phrase "... to form an Indonesian State Government that protects the whole Indonesian nation and all the blood of Indonesia and to advance the general welfare ... ". From the above excerpt from the sentence of the Preamble to the 1945 Constitution, it is clear that the efforts of the founders of the State to form an Indonesian State Government aimed at providing welfare for all Indonesian citizens. Although, in reality it is not explicitly stated that Indonesia is a welfare state in the formulation of the norms of the 1945 Constitution (when compared

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to Article 1 Paragraph (3) which states "Indonesia is a rule of law state, but the spirit to realize the concept of a welfare state is clear from the composition of norms. -norma in the 1945 Constitution. At least, in the 1945 Constitution there is a Special Chapter, Chapter XIV which regulates the National Economy and Social Welfare which consists of norms and can be categorized as an effort to provide welfare guarantees to the people, namely Article 33 of the 1945 Constitution. [3]

Thus, of course, it is very clear what is contained in Article 33 Paragraph 1 "The economy is structured as a joint effort based on the principle of kinship". So, this should be the basic basis of our thinking, therefore there should be no opinion that the strong get stronger while those who are not strong are up to. Such an opinion does not think of giving space, opportunities and opportunities to small economies, which mostly exist in the small people, which are now known as Micro, Small and Medium Enterprises (MSMEs). In fact, this is the challenge for the existence of MSMEs, namely encouraging equal distribution of small businesses that develop and thrive in the midst of community life, so as to strengthen the economy in rural areas. In principle, those who have a strong economy must attract the weak. So, in the current era of industrialization or what is commonly called the industrial revolution 4; 0. The government as the regulator must be the pioneer. Ideally, the government should be at the front to protect the wealth of the State. If the people are still poor, the government must take responsibility for improving the existing situation. This is a constitutional order [4]. The content of this paper will be elaborated on how the challenges of the Cooperative or UMKM sector in the context of accelerating people's welfare by connecting it to the era of the industrial revolution 4.0, especially in the current pandemic situation.

Discussion

Currently Indonesia has more than 200,000 cooperatives, but almost all of them are small scale. Indeed, what the community now wants is how the cooperative becomes a means of equalization. Therefore, the role of cooperatives is expected to be optimized in the future. In our constitution, it is explained that cooperatives must help weak or empowered parties through the existence of cooperatives. By striving for the mandate of the constitution, it is hoped that people's lives will continue to move parallel. So private entrepreneurs, cooperatives can

pull the nation's economy in the future. In essence, if cooperatives in Indonesia are maximized, I am optimistic that cooperatives can become a means of equality for the people in the future [5] With the aforementioned principles, everything must be returned to the people. As in the past, it was a cooperative that distributed fertilizers, namely the Village Unit Cooperative (KUD). So what we want now, the economy is divided more evenly. Don't be like the fact that there is now a strong 1% who control all the lives of many people.

Again, the principle is that we all enjoy (win-win solutions). This is contained in the 1945 Constitution Article 33 paragraph (1) to paragraph (3). According to Paragraph (1), those with a strong economy must attract the weak. The government must be the pioneer, not the referee. The government must be at the front to protect the country's wealth. If the people are still poor, the government must take responsibility for improving the situation. This is an order of the 1945 Constitution. Paragraph (2), "Production branches which are important to the state and which affect the livelihoods of the public shall be controlled by the state". This is an order of the Constitution of the Republic of Indonesia. Paragraph (3), "The land, water and natural resources contained therein shall be controlled by the State and used for the greatest possible prosperity of the people"

Thus as long as Article 33 of the 1945 Constitution we do not obey and obey, during that time our wealth will continue to flow abroad. As long as that our currency will not be strong, and during that time our economy will become a "sink for" other nations [6]

That is what we must consistently change "The earth, water and all the wealth contained therein are controlled by the state, and used as much as possible for the prosperity of the people". That is the order of the 1945 Constitution. However, the current reality that matters is "free competition, free market, globalization". All are submitted to the market. As a result, there are fewer people who are rich, but their wealth will only trickle down. Trickle down effect. This basic principle, once again we have to return to the fundamentals, to correct principles. These are people's goods, people's factories, built with people's money, working capital from the state budget, people's money, the distribution must also be made by the people. Namely, of course through cooperatives. So, in addition to means of equalization, cooperatives can also be our motor of self-sufficiency. but all of it, in my opinion,

there must be a very serious exertion, thought, effort. Moreover, the use of technology will certainly be the key in facing opportunities and challenges in the current era of technological disruption. So that cooperatives, encouraging MSMEs will be ready to face the industrial revolution 4.0.

For this reason, in the future in the face of various threats and challenges that come from the 4.0 Industrial Revolution, there is no choice for this nation other than to re-strengthen the resilience of cooperatives and MSMEs as guiding stars for national economic development because cooperatives are in accordance with the Indonesian national identity. [7] Even though it is realized, the current momentum is indeed very disturbing, even the condition is at a very concerning point, namely with the arrival of the outbreak of the coronavirus disease or commonly known as Covid-19. The Covid-19 pandemic is now causing serious problems for the economy in the country. A release from the Central Statistics Agency stated that Indonesia's GDP in the second quarter of 2020 grew minus 5.32% compared to the second quarter of 2019, and grew minus 4.19% compared to the first quarter of 2020 [8]. With these conditions, Indonesia has the potential to experience an economic recession. To that end, the government is now working hard to implement a national economic recovery policy, among others, by allocating funds of Rp 695 trillion.

With a total budget of that size, there are two approaches that are currently being taken by the government so that the economy in the country will recover quickly, namely helping to develop businesses and increase people's purchasing power. Thus, the government strengthens cooperatives and business development, especially micro, small and medium enterprises (MSMEs) and increases people's purchasing power. Indeed, economic recovery through MSMEs accompanied by an increase in people's purchasing power is essential so that the output of goods and services for MSMEs can be absorbed by the market optimally. Increased public consumption and improved performance of MSMEs will in turn contribute to economic growth. The role of MSMEs as an economic driver in a worsening economic situation such as during the pandemic this time deserves to be taken into account. By observing the sufficient amount of government attention to cooperatives and UMKM at this time, it should be able to become a momentum for local governments (Pemda) to develop local businesses.

The development meant here is not only in the form of restoring MSMEs to be more productive, but also able to grow new businesses.

The growth of new businesses is now increasingly wide open with the launching of a new program for MSMEs starting in mid-August 2020. Therefore, various efforts need to be made by the government, particularly regional governments, to develop local businesses. The government's considerable attention to MSMEs at this time should be utilized optimally by all regional governments in the country, especially for small business development, so that in the aggregate it can contribute to the recovery of national economic growth [9]. Especially with the existence of the Job Creation Law (UU) that has been passed by the DPR and the Government, so that it has overhauled various types of laws, especially those of a sectoral nature. One that is the subject of change in The Job Creation Law is Law Number 25 of 1992 concerning Cooperatives. The amendment from Law Number 25 Year 1992 is spelled out in Chapter V of the Job Creation Law concerning convenience, protection and empowerment: Cooperatives, Businesses, Micro, Small and Medium Enterprises (MSMEs). Hopefully, the cooperative will be more focused on empowering a typical Indonesian economic entity which is family-based. This is part of the government's efforts to anticipate the swift current of the 4.0 industrial revolution era. Of course with hope, when this challenge can be overcome more swiftly, then the challenges in the following years will be more fluid or more dynamic in facing the changes that are commonly termed industrial revolution 4.0.

The terminology of the industrial revolution era 4.0 is a production process (goods) that takes place quickly in both quantity and quality (production results). This term was promoted (introduced) around the middle of the 19th century by Friederich Engels. In that process, it has now entered the fourth period or stage, where the development and changes of the existing process stages give articulate differences in terms of benefits and uses. As a result, the phase of the 4.0 industrial revolution era has brought digitalization and automation which is a combination of internet and manufacturing. Starting from historical facts [10]. The second wave of revival of industrial civilization took 300 years. The historical stage that we are currently undergoing is a reflection of the third wave, namely: the information civilization is only a matter of several decades because it is supported by advances in the

field of information and robotization. This era by Daniel Bell called it The Post Industrial Society [11]. According to the large Indonesian dictionary, change means referring to a changing, transitional, changing or shifting state. Meanwhile, social is a matter relating to the condition of society. Social change is a change in the social structure or structure of a society in a society. These changes are common symptoms that occur throughout the ages in every society. Those changes also automatically occur accordingly with the essence and nature of humans who always want to change from one situation to another for the better.

This basic assumption illustrates that the social changes that occur or the reality we face are not something that happens immediately. However, through a long process from phase to phase to the era of the industrial revolution 4.0 with the characteristics or characteristics of a very advanced (modern) life. Likewise, the development of the existing legal system with the emergence of a modern legal system, said Satipto Raharjo, was a response to the new (capitalist) economic production system, because the old system could no longer serve developments and the impact of the capitalist economic system. Satjipto Raharjo also said that the processes of economic production which are capitalist in nature require a social order that is capable of creating a social field in which economic processes can run well [12]. Therefore, the urgent demand is the creation of a formal-logical legal system that can provide high predictability [13]. Max Weber stated that law enforcement procedures that are increasingly technically rational and use increasingly stringent deduction methods are stages in legal development, so law can be called modern law. In terms of the so-called modern legal system, Weber's analysis can further explain the relationship between capitalism and modern law. In this context, it is increasingly clear and clear how the challenges of the Cooperative / UMKM sector in adapting or adapting to the dynamics of social change. With these conditions, so that you have to prepare everything to face the era of the industrial revolution 4.0 with all the consequences. Including preparing the legal instrument by thinking about existing social change strategies.

It has been described by Roscou Pound that the function of law is also a law is a tool of social engineering. This concept is certainly very relevant to the current conditions in society today. Therefore, the existing rules should focus on the law in practice (law in actions) and not only as provisions in books (law in books). According to Lawrence

Friedman as quoted by Soetandyo, stating that law as a social engineering tool is the main characteristic of the modern state. In fact, Jeremy Bentham had proposed this idea in the 1800s but only received serious response (attention) after Roscou Pounds introduced it as a special perspective in the discipline of legal sociology [13]. Indeed, on the one hand, people believe the truth of the premise that law is nothing but a "normative reflection" of behavior patterns that have manifested as social reality. Meanwhile, on the other hand, there are still many people who like to theorize that the law is actually an independent variable which, when operationalized as a force with political aims, will be able to change the structural order in society. The first view mentioned is the view that sees law as a collective expression of a society, and because of that the result of its conceptual depiction will give birth to the concept of law as part of an element of ideal culture. The second view is a view that sees law as an instrument, and therefore the results of its conceptual description will result in the perception that law is part of straightforward (dynamic) technology such as the dynamics of human interaction in responding or entering the phase of the industrial revolution 4.0.

Based on the things described in this discussion, the momentum for local business development in the midst of the Covid 19 pandemic which never shows when this disease outbreak will end, must be used as a whip (spirit) to further optimize, develop and strengthen cooperative and MSME institutions in Public. Therefore, guidance, training, and the existence of regulations as products of regional regulations (perda) must be the concern of the government (regulator).

Finally, resilience in the cooperative and UMKM sectors seems very ready to face the current situation. That's why the government put Big hopes for this sector to develop local businesses, so that in turn it can provide welfare to the community. Bung Hatta said that the "goal" of the nation's economy was to provide welfare to all Indonesian people. This is reflected in his famous article "guided economy" that the goal of a guided economy is to achieve the prosperity of the people with the productive forces that exist in society [14]. Finally, Indonesia's national goals as outlined in Paragraph IV of the Preamble to the 1945 Constitution of the Republic of Indonesia are the commitment of the Indonesian people and it is the duty of the State to realize them. Based on the formulation of Paragraph IV of the Preamble of the

1945 Constitution of the Republic of Indonesia, Indonesia adopts a new, more dynamic concept of a legal state, namely what is known as the welfare state. In this modern welfare state, the government's duty is no longer as a "night watchman" and should not be passive, but must actively participate in community activities so that the welfare of all people is guaranteed. So in the welfare state the government is left with bestuurzorg, namely the implementation of general welfare [15].

In connection with the concept of the welfare state which is a revision of the concept of a passive state, Asshiddiqie as quoted by W Riawan Tjandra explained that in this concept of a welfare state, the state is required to expand its responsibility to the socio-economic problems faced by the people at large. This development has provided legalization for the "interventionist state" of the 20th century. The state needs and even has to intervene in various social and economic problems to ensure the creation of common welfare in society. As a result, with this intervention, the function of the State also includes activities that were previously outside the scope of the State's function, such as extending the provision of social services to individuals and families in special matters. such as "social security", health, social welfare, education, and training and housing [16]. Soekanto in W. Riawan Tjahandra stated that if at first the State was only seen as an instrument of power, then there were currents that considered the State as the agency of service, so that the concept of a welfare state emerged which primarily saw humans not only as individuals, but also as members. or citizens of the collectivity. And that humans are not merely a means of collective interest but also for their own ends [17].

For this reason, although it is not explicitly stated that Indonesia is a welfare state in the formulation of the norms of the 1945 Constitution (when compared to Article 1 paragraph (3) which states "Indonesia is a rule of law", the spirit of realizing the concept of a welfare state appears It is clear from the arrangement of norms in the 1945 Constitution. At least, in the 1945 Constitution there is a Special Chapter, Chapter XIV which regulates "National Economy and Social Welfare" which consists of two norms and can be categorized as an effort to provide welfare guarantees to the people, namely Article 33 and Article 34 of the 1945 Constitution. Again, the conception of the welfare state, although often perceived differently. However, tracing from the historical aspects and the formulation contained in the Preamble to the 1945 Constitution

down to the torso, there are several elements outlined as a common thread for building prosperity in Indonesia. Some of these elements are: first, the development of an economic system that is in line with the Indonesian culture (Article 33 paragraphs (1) and (4); the second element is the active role of the State in managing natural resources (SDA) aimed at the prosperity of the people (Article 33 paragraph {2} and (3); the third element is eliminating the economic gap by providing guarantees to citizens who are unable to become the responsibility of the State (Article 34 paragraph (1), the fourth element, the development of a social security system, especially in terms of facilities. health services and public service facilities (Article 34 paragraph (2) and (3). Based on the various descriptions above, it indicates very strongly that the intention to create a welfare state which is expected to meet the basic needs of its citizens as guaranteed by the 1945 Constitution. In fact / its implementation is now being played by MSMEs which are expected to save the nation's economy in an era of outbreaks. corona virus or the Covid-19 pandemic.

Closing

Underlining what has been described above, reaffirms that cooperatives are a means of equalization, and MSMEs are a means of strengthening the weak. Therefore, the roles of both in our economy must be encouraged. With the government's commitment (good will) and consistent programs that are oriented towards the middle to lower economic strata, all Indonesians can live in prosperity, free from poverty / underdevelopment. In fact, that is our goal to be independent, a state, that is to become a prosperous country. For this reason, in the midst of the threat of the Covid-19 pandemic which has devastated the nation's economy, in the future, in the face of various other ideological threats, as well as challenges that come from the 4.0 Industrial Revolution so that Cooperatives and MSMEs become a mainstay of saving the people's economy. Thus, once again, it is hoped that MSMEs will become the government's attention to face poverty, social inequality, and the development of the next industrial era (Industrial Era 4.0).

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The Challenge of Learning Program Evaluation In Society 5.0

Bulkani[1]

Introduction

Society 5.0 is an idea as a reflection on technology advances and industry in this recent. The idea appears first time in Japan, a country that we know on technology advances and keeps its pure culture. Furthermore, the digital data's artificial intelligence-based dominates the technology advances and industry in 4.0 era, is not reasonably enough. Humanity should be able to feel technological advances by building a balance between real and cyberspace's roles. In this concept, technology advances are not humans becoming dependent on these circumstances, but humans should improve their welfare. This essence is reflected in the use of the word society, which is oriented towards society's welfare.

Japan's idea about society 5.0 is told for the first time in January 2019 at the World of Economic Forum in Davos, Swiss. This idea appears to respond to very significant technology advances in industry 4.0; however, the contribution to society's welfares not optimal [1]. The paradigm used is based on a fundamental question about how rapid technological advances can benefit human life. In the society 5.0 era, big data technology that is collected and migrated by the Internet of Things (IoT) and Artificial Intelligent (AI) system is expected to be able to make life better in various aspects of life, including in the field of education [2]. Society 5.0 will create a smart society with a harmonious, balanced, and sustainable life to solve various social problems and aspects [3].

Based on the balance paradigm, its era's main characteristic is the prosperous civil society's evenly by utilizing high-level resources and technology. Mutual welfare can be achieved through the ability to solve complex problems and think creatively, innovatively, and critically but

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constructively. The agility in solving problems will be significantly influenced by information technology quickly and exponentially based on big data. It allows complete and fast data access by using a smartphone. Besides, Society 5.0 also features shared resource use. We live in an era where economic assets are no longer controlled by specific individuals or corporations but become shared assets that are shared economy[4]. The ideal condition is expected in the new world order of society 5.0 era, among others having a civil society character that dominates and controls high digital technology based on big data and artificial intelligence.

The area that will be affected by the era of society 5.0 is education. The rapidly changing social environment demands anticipatory changes from the world of education. The orientation and education program management paradigm should be adjusted; thus, education's purpose and the process will also change. First, educational programs must produce graduates who can think and act exponentially, not linearly. Linear think and actions made us think and act less rapidly than the changes around [4]. Second, educational programs must be directed at improving students' life skills; thus, they can survive in society. Those who cannot survive in society are a source of social problems in the future. Third, educational programs must be directed to a strong, creative, innovative, critical, but constructive character. Fourth, educational programs must be directed to create strong mental and spiritual strength; thus, they can survive during change while also not being uprooted from the cultural roots and the noble value system adopted by their country. Those characters that have been mentioned in the demands of Society 5.0, where we can take the example of Japan that success for keeps its cultural character in recent time. Demands for changes in educational programs and orientation, necessitating changes in the entire education system. Changes in education policies and systems must be directed towards strengthening eight national education standards[3]; one of these areas is educational assessment. The more complicated the expected learning outcomes, the system and the model for assessment are also problematic. The existing assessment model is more results-oriented; it should also assess the educational process and a broader domain of behavior. Assessment technology also tends to undergo many changes, especially towards an ArtificiallyIntelligent and Internet-based Digital Assessment model.

Characteristic of Learning in Society 5.0

A good goal of society 5.0 is to reduce social inequality and balance between machines and humans' roles. This goal can be achieved through a paradigm shift and educational orientation because the educational process produces humans who are the subject of social change. At the very least, the educational paradigm must be directed towards applying education for all as the SDG's goal of UNESCO. Thus that technology advances and other educational outcomes can be felt more equitably. Also, to maintain a balance between humans and machines' roles, the new paradigm of education towards Society 5.0 is pure education for humanity. In this context, the educational process must produce social beings, that is, ready to share various resources, both in their community and global.

Apart from the change in the educational paradigm, the world of education and the learning process must be oriented towards the fulfillment and ideal conditions expected in Society 5.0, an advanced stage of Industry 4.0. Several characteristics of the situation will occur in the education and learning process in the industrial 4.0 and society 5.0 era when learning resources can be accessed more openly and more quickly. Furthermore, the variety of learning resources will also be more comprehensive, from the text, audio, video, and even games. The concept of "learning is open" is one of the essential features of the learning process in society 5.0. Using 5G technology, downloading learning resources from unlimited internet sources will be much faster in 5.0. Even the concept of "learning is open" will be supported by the state of "learning is mobile," that the learning process will not be limited by a particular space, place, and time. Learning can be done anywhere, anytime, and by anyone.

Learning in society 5.0 also provides more opportunities for students to learn to find concepts independently by exploring their thinking power, combined with knowledge from various available learning sources. In this context, teachers only function as facilitators and evaluators at the same time to ensure the achievement of learners' learning objectives. Some of the learning approaches and strategies that teachers can use include problem-based learning models, inquiry learning, and discovery learning. According to many studies, the use of discovery learning strategies and models can foster creative thinking

abilities [5] [6] [7]. Another study proves a significant effect of inquiry learning models on students' creative thinking abilities [8].

Another characteristic of learning in society 5.0 is collaborative learning, as a form of social society connected, working, and living together in a broad sense. The meaning of society becomes broader, not tied to the community in the sense of a group of people who inhabit a place. In society 5.0, a personal existence cannot be separated from his community, even if he is at a different place and time. At this time, we may be accustomed to seeing a student studying in his room, but at the same time, he is also connected to his community through a network system. In other words, the concept of learning is a personal process. It will also experience a shift in meaning by emphasizing the concept of virtual connection. However, collaborative learning in society 5.0 still requires physical, social interaction to build a sense of community.

The Challenge of Learning Program Evaluation in 5.0

As stated in the previous section, the change in society 5.0 will change the education assessment aspect. The changes are:

Change to the Online Evaluation System

The online evaluation model has started to be used since the 1960s and become commonly used on Pandemic Covid-19 in the 2020's early. The pandemic forces teachers and students to interact with online learning, with various limitations. Although teachers and students are not ready to fully interactive online learning, teachers and students can accept that online learning is necessary for the pandemic situation. Some general complaints of teacher and student are internet network quality, and limited quota, availability of equipment, bore and unpreparedness of students to learn more independently [9] [10] [11]. Besides that, weak supervision can reduce learning interaction quality.

Online learning is more commonly used in society 5.0, even though the Covid-19 pandemic has passed. The patterns of interaction between humans are no longer limited by time and space. Therefore, in industry 4.0 and society 5.0, it will require the learning process to be carried out with an open-source and access system, anywhere, anytime, and by anyone. The increase in the number of interconnection capabilities between networks with humans will cause communication patterns.

The higher speed of internet use and data access on technology 5.0 will facilitate communication, saving more time and effort. With advances in information technology, many learning program evaluations will be carried out online in the future. That means evaluators can still carry out and utilize the results of learning evaluation without having to meet face to face [12].

Measurement of More Complex and Systematic Aspects

In society 5.0, there are many behavioral competencies needed, including innovative, creative, constructive, and critical, with humanity's values, the ability to work together, and high morals. The ability to think complex in society 5.0 must also be combined to think structured, systematic, and tiered. By this competence, human beings who master high technology will be created with all their practicalities; on the one hand, they can live in sharing and helping each other in the community. These competencies are problematic behaviors that can be achieved through educational programs. Programs that aim to achieve complex competencies also require a complex learning outcome evaluation system.

Thus, the challenge of evaluating learning in society 5.0 is how to prepare models, measure tools, and evaluate the techniques that can measure complex aspects of learning outcomes. In essence, there is no single aspect of learning outcomes that can stand alone. The learning process that aims to achieve cognitive aspects also contains affective goals [13] [14]. Likewise, learning-oriented to the psychomotor aspect includes cognitive aspects. For this reason, teachers and lecturers as evaluators in the learning evaluation system are required to develop their knowledge and abilities in evaluating educational programs comprehensively.

Furthermore, the general pattern of learning evaluation that has been used so far must be changed. Learning outcomes measurement psychometric approaches will be needed in the future. Psychometric measurement models are considered sufficiently capable of describing the achievement of problematic aspects of learning outcomes. A complex and psychometric-quantitative-based learning outcome measurement model can be combined with a qualitative-based evaluation of inputs, learning processes, and outcomes, resulting in a comprehensive evaluation. Combining evaluation models or mixed designs will be more necessary in the era of society 5.0.

In society 5.0, an evaluation model is needed that is oriented to products or learning outcomes and inputs and processes. If the teachers and lecturers as evaluators have relied more on tests as a measuring tool for the success of the learning process, then in the future, they are also required to have the ability to plan, create, and use non-test techniques to evaluate the effectiveness of the process and the achievement of learning outcomes. So far, the test technique is more widely used because it is oriented towards measuring learning outcomes. Problematic behaviors obtained from the learning process are not automatically reflected in learning outcomes. This is partly due to the difference in the time it takes for each student to master the knowledge or skill being taught. That means learning outcome behaviors cannot be described when the measurement is carried out, but the behavior will appear later. Thus, the achievement of learning objectives and behavior changes can also be measured from the quality of the input and the learning process using the learning program's evaluation. Program evaluation is more suitable to be used to measure program effectiveness during social change [15]. Socio-cultural change is one of the essential factors influencing the use of learning program evaluation [12].

Several program evaluation models are oriented towards the comprehensive evaluation of learning programs. Some evaluation models can even assess the quality of the input, the process's effectiveness, and the output quality. One of them is the CIPP (Context, Input, Process, Product) model, which was introduced by Daniel Stufflebeam [12] [16]. By using this model, evaluation of learning programs is seen as a system with linkages between components. In the CIPP model, evaluation is carried out on the quality of the context, input, process, and output. Thus the achievement of the education program is seen comprehensively as the success of all its constituent components. The gauge must assess the needs and potential problems students will face in learning from the context side. From the input side, the evaluator must assess the quality of the leading and supporting resources, such as students' quality and readiness to receive learning, financial support, infrastructure, etc. From the process side, the evaluator must assess the learning process's quality and look for weaknesses in the learning procedures used. Meanwhile, the evaluator must assess the achievement of the learning objectives from the output side if it is related to the support of the context, input, and process passed.

The development of the CIPP model is called the CIPPO model (Context, Input, Process, Product, Outcomes), which was carried out by Gilbert Sax [15] [17]. This development adds an outcomes component as the evaluated aspect. With this model, learning outcomes are evaluated to students' impact and benefits when applying the knowledge and skills they have acquired in the community. Evaluation of outcomes is generally more complex than evaluation of outputs because outcomes lead to applying skills in society; for example when students have worked. Even though this outcome evaluation carries the consequence of a long time for evaluators to wait, this evaluation plays a vital role in assessing learning and education programs' effectiveness.

Another model that can be used is the EKOP (*Evaluasi Kualitas dan Output Pembelajaran*), which was developed by Widoyoko in 2008 as a modification of the CIPP model Kirkpatrick's model [18].In this model, the learning program's success is evaluated from the process's components, and its output provided that the measured outputs are academic skills, personal skills, and social skills. Personal skills are related to the ability to exist and survive in a rapidly changing life. These personal skills are indicated by the skills to think critically and creatively, make decisions, solve problems, self-confidence, and work ethic, while social skills are skills needed to live in a global, multi-cultural, democratic, but competitive society. Social skills include the ability to communicate and the ability to work together. The EKOP model's advantages are this model evaluates learning programs more comprehensively, does not depend on the formal curriculum setting, and does not depend on the teacher's specific learning approach [18].

A combination of several evaluation models is also suggested in evaluating future learning. This combination model is called a mix design. This model was developed as a response from evaluators to learning needs, especially information technology development [12]. The mixed model is believed to be able to evaluate learning more comprehensively. Some mixed models even use quantitative and qualitative paradigms. Qualitative evaluation that is carried out on the quality of the input and the learning process supports each other with a quantitative evaluation of learning outcomes. In addition to using a mixed paradigm, the mixed design evaluation model is also a combination of two or more evaluation models used according to the learning evaluation's needs and objectives.

The Development of Learning Outcome Measurement to Item Response Theory (IRT)

In society 5.0, measuring learning outcomes is still needed, although it is no longer the only indicator of learning activities' success. In the era of society 5.0, which emphasizes more complex learning outcomes, evaluation of learning activities as a whole is also needed. In addition, the references used are no longer based on norm references but are based on specific standards or benchmarks. The competencies needed in society 5.0 refer to specific standards. According to standard references, students' competency achievements are no longer compared with other students' competency achievements but are compared with specific standards set and agreed upon [19]. Therefore, whether someone is competent is no longer tied to other people's competence in a group. Competency values are independent between one student and other students.

Measurement of learning outcomes generally tends to use Classical Score Theory or Classical Test Theory (CTT) [20] [21]. The main characteristic of a classical scoring theory is the attachment between the test takers' characteristics and the characteristics of the test items or instruments used. In classical scoring theory, there is interdependence between test takers and the items or instruments used. Changes in test-takers' characteristics will cause changes in the characteristics of the test items or instruments. Likewise, the opposite means that we cannot mention the test items' quality, such as the test items' reliability coefficient and difficulty, without mentioning who the test taker is. Likewise, if we want to describe the quality of the test-takers' response, we must describe the characteristics of the test items used.

The interdependence between test takers and instrument items in this classical score theory causes the instrument's generalizability and universality to go low. This is a weakness of the classical scoring theory, in which test-takers get high scores on easy instrument items and low scores on difficult instrument items [21] [22]. Meanwhile, this level of difficulty does not apply universally to all test takers globally. In a global world order, the concept of universality of instruments becomes essential. An instrument must be used by anyone, anywhere. The concept of sharing resources in society 5.0 symbolizes the importance of this universality. Some of these weaknesses have led to

the development of measurement theory to the modern score theory item Response Theory(IRT).

Item Response Theory was introduced in the 1950s by several experts and began to be developed and used for broader measurement in large-scale measurements since the 1980s, especially in psychometrics and educational measurement [23], on the independence between the test-takers' difficulty level and the test-takers, there are no more difficult or easy items for all test takers. The basic assumption of IRT is to use the item difficulty level of 0.5; thus, all test takers have a 0.5 chance of correctly answering a test item. This indicates that wherever and under any conditions, every test taker will respond to each test item given correctly, as long as the material being measured is about the same thing that is unidimensional. This assumption implies that there may be differences in the scores obtained by test takers, solely due to differences in test-takers' abilities, not because of differences in the level of difficulty they feel.IRT's model will make the instrument's universality possible, independently by time, condition, place, and testee characteristic.

Currently, the use of IRT is still under development. IRT's current developments aimed to measure and model multidimensional aspects to measure the test-takers' permanent properties and characteristics [24]. The development of computational techniques using computers and software extensively helped develop IRT and accelerated the calculation process. Several tools are commonly used in calibrating test items and instruments, including BILOG, MULTILOG, WINSTEPS, IRTPRO, MPLUS, and HLM [24].

Conclusion

The existence of society 5.0 impacts the paradigm, orientation, and learning evaluation models and techniques. In society 5.0, the evaluation of learning should be carried out comprehensively. Although the measurement of learning outcomes is still an indicator of learning success, learning success must also be measured from the quality of inputs, processes, and outcomes. The learning outcome measurement model will change from the classical scoring approach to the item response theory. This is due to the need to measure learning outcomes that are more complex and globally applicable and the growing world of computing and software. In the field of evaluation

of inputs, processes, and outcomes of learning activities, learning program evaluation models that combine several models (mix designs) will be widely used so that it needs to be developed as a comprehensive measurement model.

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Optimizing Community Participation at the Higher Education Level during Pandemic Period through KKN-DR

Daryono[1]

Introduction

Community participation at the tertiary level is an effort of citizens to support educational programs [1]–[3]. Community participation in education development in Indonesia needs to be fostered as an effort to participate in education development. Participation is an active personal involvement in social processes in certain situations [4], [5]. Consciously a person can participate if he finds existence in the group through various interactions with other people in terms of values, habits, empathy, involvement, awareness and shared responsibility. Community participation through the process of identifying problems and all the potential that exists in the community is an effort to overcome problems and involve oneself in the process of evaluating the changes that are happening [6]. There are six meanings of participation [7]: first is a conscious contribution from the community to activities without participating in decisions, second is empathy to the community to participate in increasing awareness of acceptance and efforts to respond to development activities, third is voluntary sympathy by the community in the goal of change, fourth is an active role through related groups and taking initiatives in using its decisions, fifth is strengthening dialogue between local communities and several related elements in carrying out plans, processes, evaluations in order to obtain comprehensive information, sixth is community participation in self-image , life and environment.

The role of higher education is very important, especially in creating a stable personality and having a positive attitude and personality [3], [8]. Higher education is growing rapidly along with a variety of

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promising courses and facilities. Higher education institutions should be able to analyze market goals as the main target of the university in knowing the market share assessment of high school students and their equivalent towards the university. This needs to be considered and carried out considering the large number of choices of universities and study programs offered as well as changes in the interests / tastes of senior high school students from one university to another within a certain period of time [3], [8]. However, things changed rapidly when the Corona disease outbreak brought unexpected changes in various sectors [9]. The mutation and development of the corona virus is rapidly spreading in parts of the world. The death rate from the Covid-19 virus has continued to increase since it was first announced in early March 2020. This has influenced the programs and policies to be established. In the academic world there has been a change in learning, initially it could be carried out offline on campus and finally it was enough to be online at home. The government's recommendation to stay at home and physical and social distancing must be followed by a change in the learning mode from offline to online.

Likewis, the income of student guardians has decreased and there is also limited access to information on tertiary institutions. PGRI Wiranegara University as a private university that implements tridharma with various learning modes has also experienced a change in the learning mode for students. Implementation of real work lectures from home (KKN-DR UNIWARA) is implemented by implementing independent and remote systems using a variety of learning modes. Field Development Lecturers (DPL) have an important role as a liaison for students in supporting the implementation of KKN-DR, so that UNIWARA KKN-DR activities can run properly. UNIWARA's KKN-DR program policy by the Chancellor of the PGRI Wiranegara University is directed at optimizing community participation in universities through the UNIWARA KKN-DR program during the pandemic. The UNIWARA KKN-DR program is a response from PGRI Wiranegara University to a Joint Decree (SKB) signed by the Ministry of Education and Culture, Ministry of Religion, Ministry of Health and Ministry of Home Affairs to address the situation related to Covid-19. The SKB provides policy directions regarding the implementation of education during the Covid-19 pandemic. The main principle of the policy states that health is the main focus in the

provision of education. As for the rationalization of the implementation of UNIWARA's KKN-DR, namely: (1) The Indonesian government issued a policy related to the outbreak of the Covid-19 pandemic: 'stay at home', 'work from home', 'learn from home ''(study from home), (2) East Java still occupies the top position in Indonesia in terms of positive Covid-19 patients, (3) BP3M Uniwara issued a Special KKN-DR UNIWARA Guide during the Covid-19 pandemic to assist the government in mitigation , handling and rehabilitation of the Covid-19 pandemic, and (4) KKN as a compulsory subject must continue to run while still prioritizing the principles of HEALTH AND SAFETY students, DPL, and the organizing team.

Optimizing community participation in tertiary institutions through the UNIWARA KKN-DR program during the pandemic using technology and information as an effort to support the four ministerial decree policy and optimize community participation during the pandemic. Technology and information are two important things in the implementation of KKN-DR UNIWARA. Technology and information media are the main and important things in all aspects of life, especially access to personal computers, laptops and smartphones, which are always attached to users to be able to meet their needs for information [9]–[11]. To optimize community participation during the pandemic, especially information about higher education levels, UNIWARA KKN-DR utilizes youtube, online newspapers, and socialization to the surrounding community by paying attention to health protocols. UNIWARA KKN-DR mediates information to the public about the university's relationship with the community. The facts show that society has the potential and plays an important role in the existence, sustainability, and even progress of higher education. At least some measure that determines the fate of higher education is society. If there is a university that is advanced and developing, it can be ascertained because of the optimal factor of community involvement and participation. Community participation is one of the keys to higher education progress. If the community has confidence in higher education, the community will fully support the course of higher education. Therefore, community participation is a strategic aspect that should receive full attention from universities.

Based on empirical studies, community participation in tertiary institutions shows that society has a dual role, namely as an object as well

as a subject. Both roles have a functional meaning of participation in higher education. When a tertiary institution is promoting new student admissions, society is an object that is absolutely needed. Meanwhile, the community's response to the new student admission activity places the community as a subject who has full authority to accept or reject it. The position of society as a subject also occurs when they become users of university graduates. Therefore, community participation must be managed properly. Community participation with tertiary institutions is a process of activities that are planned and carried out in a planned, massive and serious manner, accompanied by continuous coaching to get sympathy and empathy from the community. Especially people with direct interest in universities. Public sympathy will grow through the efforts of universities to establish relationships incentively and proactively in addition to building a good image of higher education institutions.

Discussions

Optimization of community participation at the tertiary level during the pandemic is carried out by planning, implementing, monitoring and evaluating through the KKN-DR UNIWARA. The planning stage is carried out by mapping Field Development Lecturers (DPL), UNIWARA KKN-DR students and KKN-DR collaborative partners. Planning is carried out on the needs of both higher education and community participation, then planning is made based on the needs of the community (KKN-DR UNIWARA partners) to find out the potential they have in developing alternative program activities. Program planning prepared by students participating in the KKN-DR UNIWARA is useful for supporting higher education. For example, programs directed at the use of science and technology, religious spiritual values, identification of community needs can be seen in choosing higher education on the basis of academic, sociological, philosophical and economic reasons.

The implementation phase of the program is compiled based on the guidelines given by PT to UNIWARA KKN-DR students. The implementation of the UNIWARA KKN-DR implementation involves the participation of the community in terms of good cooperation between UNIWARA KKN-DR students, UNIWARA KKN-DR partners, and universities. Students and partners carry out

the program that has been planned, while the university supports the program of activities. At this stage, students participating in the KKN-DR UNIWARA also support the use of technology and information through the YouTube platform and online newspapers. Students support the change in the KKN-DR UNIWARA mode in the midst of the covid-19 outbreak. With the government's recommendation for physical distancing and stay at home, of course, it needs adaptation for students of KKN-DR UNIWARA, not just sitting around without doing productive things. Therefore, for students KKN-DR UNIWARA is something new and of course there must be obstacles. For program implementation and producing technology and information outputs in the form of a youtube platform and an online newspaper, students are not very good at it. The obstacles encountered during implementation can be used as valuable experiences. Several students participating in the KKN-DR UNIWARA described frequently using technology and information in the form of social media to communicate and collaborate to solve these obstacles. Social media is used for interaction or communication, both personal and social [10], [11].

The purpose of using social media includes writing short messages, reading social media comments and writing comments. The use of social media by students participating in the UNIWARA KKN-DR to overcome the obstacles faced in the program implementation situation. There are also KKN-DR UNIWARA students using different technologies to support interaction in implementation. Social media includes many online technologies that allow users to interact with other people involved in the implementation of UNIWARA's KKN-DR. In addition, social media is also used to support the transformation of knowledge or information to develop collaborative and cooperative KKN-DR UNIWARA. Using online technology and information supports the optimization of community participation during a pandemic. By accessing the YouTube platform and online newspapers, it is hoped that the community will participate in the promotion of higher education and position themselves as subjects who have full authority to accept or reject it. At this implementation stage, KKN-DR UNIWARA students can also share knowledge and technology and develop new ideas without having to be in the same location. Through technology, UNIWARA KKN-DR students can convey information and knowledge uploaded on the YouTube platform and

online newspapers. Thus, community participation at the tertiary level during the pandemic can be optimal. On the other hand, it can assist students in interacting with the most adequate resources to access the most related and reliable data efficiently. Students gain the desired knowledge and get a comprehensive view of different aspects of life.

The monitoring and evaluation stage of the UNIWARA KKN-DR is carried out during and after the activity which aims to see and assess the progress of the program's success and provide feedback on the implementation of activities. At this stage, monitoring and accountability for the implementation of activities are carried out. This stage is carried out by BP2M together with field supervisors through various meetings and meetings. The issues discussed were regarding the performance of students participating in the UNIWARA KKN-DR, the programs implemented and the results produced. Furthermore, community participation is optimized through the output of the YouTube platform and online newspapers so that effective communication is established, feels involved and participates in having programs that have been carried out. Community participation will grow if parents and the community also benefit from their involvement in the UNIWARA KKN-DR program. Benefits can be interpreted broadly, including a sense of attention and satisfaction because they can contribute to the benefit of the school. So, the principle of fostering relationships with society is giving mutual satisfaction. One of the ways to build relationships with the community is to establish effective communication. Through KKN-DR UNIWARA, higher education introduces itself about programs and activities to the community. The hope is that the community will get to know more and be able to help and support the program. In addition, this is done so that the relationship between the community and universities can become stronger. The community and universities can collaborate and universities can also socialize superior programs to attract public interest.

Factors that influence community participation in the UNIWARA KKN-DR program, namely: (a) building good communication between fellow citizens, between community members with higher education, and between social systems in society and systems outside it, (b) political, cultural, social and economic conditions in family life, association, and society and the nation which are profitable and encourage the growth and development of community participation,

(c) opportunities to participate. Environmental conditions and social processes and structures, value systems and norms that enable and encourage social participation, and (d) freedom to initiate and be creative. An environment in the family or social, political and cultural environment that allows and encourages the emergence and development of initiations, ideas, both personal and social.

Optimizing community participation through KKN-DR UNIWARA is an effort to form and develop community groups based on development strategies and from below. It is hoped that through these groups initiation and innovation will emerge from below. Basically, community participation has occurred in tertiary institutions in the practice of organizing and establishing institutions. Community participation can be created with a variety of methods and techniques according to the conditions of each region or community group and the PT is located. This condition has a role and requires alacrity in distributing its roles and authorities in order to accommodate the contribution of community participation. The role of PT for the community at large can be seen how the progress, roles, attitudes, and contributions of educators to problems of society and the nation in a comprehensive manner. Likewise, the role of students and lecturers of field supervision of UNIWARA's KKN-DR in society depends on the description of their position and social status in the community. So, that role is inseparable from the personal qualities of students and the KKN-DR UNIWARA DPL concerned and competence in the implementation of UNIWARA KKN-DR. The main participation is responsibility in the development of higher education as a socialization process to interested community groups. This responsibility process certainly has ups and downs. By referring to the scope of community participation in education development, the community must, from the planning, implementation, and utilization of results and evaluation processes be involved and given space both in determining the implementation method and utilization of the results of UNIWARA KKN-DR.
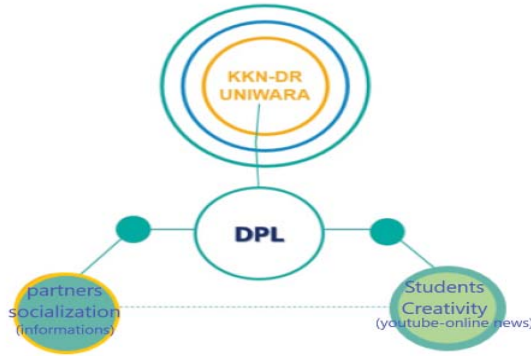
UNIWARA's KKN-DR model refers to quality improvement management in the perspective of higher education [2], [3], [12], [13]. Quality management is a process stage in managing higher education that is comprehensive and integrated in order to consistently meet the needs of the education user community and achieve continuous improvement in every predetermined standard. The focus of quality management is to improve the quality of work, improve productivity and efficiency through improved performance and improvement of work quality in order to produce products that satisfy or meet customer needs. The assurance of the quality and quality of higher education is knowing what the customers need. Higher education institutions seek to understand and synergize various aspects to carry out management of the quality of education they manage in order to carry out educational duties and functions. Therefore, cooperation with all university components in management must be a priority. The college component in question is the lecturers, employees, students and the community. Collaboration with university components is intended to involve and empower them in organizational processes both in decision making and problem solving. This is one of the efforts to make educational innovations and give full authority to higher education to organize education so that the products produced are in accordance with the environment. Quality management emphasizes the maximum involvement of various parties, thus ensuring the wider participation of all components of education in the formulation of decisions about

education. This is intended to encourage commitment to education. Which in turn will support the effectiveness in achieving educational goals.

On the other hand, optimizing community participation at the tertiary level during the pandemic through the UNIWARA KKN-DR is a creative strategy by utilizing the YouTube platform and online newspapers. Video images and online newspapers are important elements in informing UNIWARA's KKN-DR. This aims to visualize and convey messages. Students and partners of UNIWARA's KKN-DR collaborate to package interesting programs that are being carried out. Collaboration between students and partners of UNIWARA's KKN-DR resulted in the selection of media in accordance with the target of optimizing community participation to be targeted. The use of the YouTube platform and online newspapers is in accordance with the target audience, namely adolescents and adults. In addition, choosing the right time also greatly affects the success of messages conveyed through the YouTube platform and online newspapers. Considerations made to reach more viewers. Youtube and online newspapers are media platforms that focus on user existence and facilitate activities and collaboration. Therefore, the youtube platform and online newspapers strengthen the relationship between users as well as a social bond [14]. Social media is here to provide opportunities for personalities to become mass communicators. Every person who in this case is a student and KKN-DR UNIWARA partner has the potential to convey a message for what he has done. The use of social media also varies, including to convey routine personal activities and other social activities. KKN-DR UNIWARA uses the YouTube platform and online newspapers to convey information on the programs that have been implemented. Several students of KKN-DR UNIWARA stated that using social media made it possible to access information and communicate between students, partners and DPL anytime and anywhere.

Community participation in KKN-DR as a vehicle for education [15], namely: (a) public opinion that education is the responsibility of the government. This causes the community to only be placed as a complement and results in weakening and the participation of citizens and community groups in the development of education. This condition has harmed the development of education and is increasingly burdening the government as state administrator. (B) technological

developments have caused the role of higher education to begin to shift. Higher education is no longer a center of learning because the learning process is no longer limited by space and time. The role of the lecturer is not the only source of learning and the main source of information for learning. The role of parents in community groups is very important to fill the void roles that higher education is no longer able to take, (c) the decentralized development paradigm has opened up opportunities to re-actualize community participation in education development, (d) parents and community groups should be involved in education development since the process, planning, implementation, utilization, and results of its evaluation, (e) media and forums are used to channel community participation in education development, (f) it is necessary to have laws and regulations governing the mechanism for community participation in education development, both in national scale, as well as the level of education providers. Therefore, education is built to lead to the formation of the younger generation into "the learner generation". A generation that is not easily fooled by the lure of globalization which is identical to the product of capitalism. The generation of learners refers to the responsibility of every human being to do two important things, namely: first, always trying to recognize the nature of oneself, potential, talents and trying to find answers to existential questions. Second, the generation of learners optimally actualizes all their potential, expresses themselves and declares themselves wholeheartedly to be themselves and rejects anything that is not themselves. The generation of learners is steady and assertive in facing the dynamics of change with an attitude of independence. The dynamics of changing world continuously occur at any time, should be understood as lessons in determining character and attitudes in accordance with local wisdom and national character. The younger generation should realize that a nation is smart and has a character when its community groups are able to understand the nature of themselves and the skills to actualize themselves as part of the process of embodying national character in the process of winning in international competition.

Conclusion

Optimizing community participation is an important thing in the socialization of programs in tertiary institutions. Community

participation at the tertiary level through the KKN-DR UNIWARA during the pandemic is a creative strategy by utilizing the YouTube platform and online newspapers. Videos and online newspapers are important elements in informing UNIWARA's KKN-DR. This aims to visualize and convey messages. Students and partners of UNIWARA's KKN-DR collaborate to package interesting programs that are being carried out. Collaboration between students and partners of UNIWARA's KKN-DR resulted in the selection of media in accordance with the target of optimizing community participation to be targeted. The use of the YouTube platform and online newspapers is in accordance with the target audience, namely adolescents and adults.

The role of higher education for society at large can be seen how the progress, roles, attitudes, and contributions of educators to problems of society and the nation in a comprehensive manner. Likewise, the role of students and lecturers for field supervision of the KKN-DR UNIWARA in society depends on the description of their position and social status in the community. So, that role is inseparable from the personal qualities of students and the KKN-DR UNIWARA DPL concerned and competence in the implementation of UNIWARA KKN-DR.

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Technology, Disasters, and Inclusivising Digital Access for Education

Diah Karmiyati[1] and David Pradhan[2]

Introduction

The present epoch of human history, the Anthropocene, is driven and facilitated by modern technology to such an extent that the boundaries of interactions between the biophysical human society and digital virtual world is becoming blurred, and an emerging "technosphere" [26] is rapidly stimulating dramatic shifts in global political economy, international interactions, and national administrative mechanisms. The pervasiveness of the digital Information and Communication Technology (ICT) revolution inheres and facilitates most aspects of modern life such as economic globalization, cultural dissemination, and societal interactions at all levels [27]. Governments in many developing countries, keen to improve delivery of development and empowerment schemes to target populations, and seeking increased ease of interaction with citizens have also embraced the immense possibilities of technological innovation in public administration by adoption of ICT in Governance popularly called e-Governance [28]. The unprecedented Covid 19 induced worldwide lockdown in 2020 accentuated the pervasive importance and influence of ICT. It exposed that there are hardly any areas of life untouched or uninfluenced by digital technology, from mundane every day activities like purchasing groceries online or enjoying online entertainment during quarantine, to critical matters like tracking infectious contacts for Covid 19 pandemic containment through apps, information dissemination through social media, availing critical medical consultation online, or perhaps most visibly, accessing education, through online classes on digital platforms.

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The objective of this article is to explore the transformative influence of adoption of modern technology on delivery of essential Government services such as education by the State administration, and seeks to identify gap areas of digitization in governance which need legal and policy intervention to ensure inclusivity and obviate socioeconomic discrimination, especially in developing democratic States of the Global South. This review article is based exclusively on secondary sources and adopts the qualitative analytical methodology for its inferences. Drawing from the corpus of existing scholarly literature on the subject, a contextual meta-study of the topic based on previous work on the subject is attempted to comprehend the implications of the digital divide for delivery of State services to society in developing democracies by scrutinizing the obligatory online education by Public Educational Institutions in India during the Covid 19 Pandemic in 2020 as a heuristic of e-Governance. This article is limited to the analysis of just one subset of the various services provided to the citizens through e-Governance i.e. the provisioning of online education to children. It is geographically focused and based primarily on the situation obtained in India, although references will be made to other developing States.

Results and Discussion:

Governance is the public sphere of executive policy framing and organized implementation within the parameters of the legislative directive. It is essentially a function of the Government regime in power and its implementing bureaucrats. Scholars have emphasized the role that good governance plays in supporting equitable development, inclusive social empowerment and strengthening democracy in developing States [1]. The potential of ICT in addressing citizen services through real time information dissemination, administrative reorganization, and increased ease of economic development is unquestionable. Applications of modern technology especially ICT, digitization, and automation in public adminisration for structuring and simplifying internal organizational operations of Government departments, and facilitating efficient and expeditious government services delivery through a responsive two-way communicative and participatory process is called e-Governance which is being projected as a crucial pillar of "post-bureaucratic" good governance

[2]. Scholarship on the subject links e-Governance and digitization of public services delivery with reduction of administrative delays and potential corruption associated with manual bureaucratic administrative process in the developing countries [3]. The undeniable evolutionary potential of ICT based digital e- Governance to transform the Statist administrative archetypes, usher in good governance and make the legal "Right to Education" more accessible and equitable through advanced technological interventions in the educational field by facilitating easy availability of educational resources and objective assessment of academic performance is unparalleled in human history [4]. Governments across the world have shown an increasing propensity towards the use of ICT for public administration, and e-Governance of almost all sectors of Government enterprise and responsibility is viewed as a panacea for public service delivery. Facilitatio of access to the citizens to remote nd feasible access for participation and beneficiation from initiatives of the government is an essential aspect of e-Governance [5].

The real test of the efficacy, resilience and responsiveness of any Governance model is during emergencies. The most prevalent emergencies confronting governance and executive administrators are the natural and anthropogenic disasters which put citizen life and property at risk and require immediate and specialized State intervention to protect [6]. During times of emergency of disasters, the welfare role of the State to intervene is essentialized and in these instances of administrative action, the deployment and role of e-Governance is emergent [7]. The Novel Coronavirus, which originated in Wuhan, China, is a Global Pandemic of the droplet borne highly infectious virus, which has necessitated preventive lockdowns, and forced confinement of people to their homes as Governments across the world struggle to contain the contagion [8]. In these circumstances, ICT has been increasingly deployed for communicating awareness about the infection, enforcing compliance with mandated health regulations, and delivering essential services which are the responsibility of the State to the citizens. The facilitation of essential services to which citizens are legally entitled, falls within the rubric of obligatory public administration, and their seamless delivery to citizens through deployment of ICT is a domain of e-Governance.

Unforeseen environmental factors, such as disasters (pandemic) can disrupt conventional education in classes, and in such cases, ICT enabled education for remote teaching ensures continuity of learning. The temporary closure of all institutions of education in most countries, as a component of social distancing to counter the spread of contagion has necessitated the State to give approval for, and promote online learning for students confined to their homes which can be achieved for lower transactional costs [9]. While there are variable levels of infrastructure for utilization of ICT, differential competencies among teachers and system administrators for imparting online education to an entire generation of students, and differential levels of access to the electronic equipment and internet access among the students based on the socioeconomic status of their families [10], the online learning imparted by Government Schools and Universities in India, has followed a rather uniform pattern that expects the students to access classes. Literature on the subject shows that in certain abstract subjects such as humanities and social sciences, the online classes are an appropriate substitute to regular physically interactive classes in schools [11]. Other scholars have shown that subject knowledge retention and comprehension of students attending distance learning through remote imaging mode of ICT based classes is similar to those of regular mode [12]. However, in science, technology, and experiment-based subjects such as psychology, the efficacy of online education has been reported to be limited in comparison to conventional class-based learning [13]. In these subjects which necessarily require face to face Student-Teacher interaction and personalized attention, even the use of adaptive technological access [14] is doubtful to be optimal in imparting necessary skills to the students. Similarly, the online education of students with disabilities or special needs is inadequately addressed in the reductionist conception of education that fetishizes technology [15]. Online education, at least in some subjects, cannot therefore be a universal template replacing conventional face to face education.

The technological innovations and application in e-Governance of public education for remote interaction with students can indubitably catalyze the continuation of access to education during emergencies if conscientiously harnessed. However, ubiquitous importance of ICT in accessing social benefits, including through the Statist development

programs including public education, brings to the fore the issue of the existence of a societal digital access gap, which originates from pre-existing socio-economic status. Digital divide is the variation of levels of access to modern digital technological devices, fast internet, relevant operational skills, infrastructural support, and socioeconomic access to devices, electricity, and internet for actualizing digital access. Scholars have noted with concern that digital divide serve to amplify the differences between the privileged and the underprivileged. [16]. An excessive techno-centricity of public administration can impede access to food rations under the public distribution system intended to provide basic food security to indigent resulting in malnutrition in populations, or lack of access to high-speed internet and/ or electronic equipment can adversely impact educational performance of students undertaking online education [17].

The digital divide may also manifest geographically, because of uneven sub-national development of infrastructure in different regions, rather than socio-economically, wherein even those able to afford digital access may not be able to do so due to their location in remote areas where internet coverage may be patchy or non-existent. The results of thisdeprivation of access to digital technology, manifests as inability among the most vulnerable and marginalized sections to avail the State mediated welfare entitlements meant for them and in some cases a violation of their Rights. Scholars have shown that access to electronic equipment and to high-speed internet conducive for online education is linked to socioeconomic status [18]. Even where the students have devices for accessing online education, socioeconomic factors can manifest through variable device capability, disadvantaging students from poorer families and creating psychological inferiority complexes [19]. The detrimental impact of unequal access to digital technology and internet on students undertaking online education has been consistently noted by research [20]. Other scholars have noted the need for equity in access to educational technology to address socio- political and economic inequality which perpetuates intergenerationally from the lack of access to education or even from sub-optimal education which renders the students ineligible for employment, or forces them to be underemployed [21].

This inequality in access to education and consequent employment can snowball rapidly widen into social disempowerment

and economic exclusion of the poor and marginalized in developing democracies with incipient social and economic disparities, posing a potent threat that can rupture political stability. An overreliance on technology without tempering use of ICT, can even pose a threat to State security, as all digital ICT technology is ultimately susceptible to cyber-attacks by vested interests and computer viruses which can paralyze access to basic services expected by the citizens and increase political parochialism, disaffection towards the government and, in extreme cases, threaten State sovereignty [22]. While inequality is an endemic problem in every society, it can also lead down more dangerous pathways, due to complex human societal and political factors, such as exacerbation of existing disparities of marginalized sections due to the digital divide and consequent denial of literacy to sections of the population unable to afford electronic equipment [23].

The above brief discussion demonstrates the futility of solely relying on myopic technologically deterministic policies without considering the humanistic aspects of technological applications in human society. This folly of technological solutionism sadly afflicts the e-Governance based "new public management" model which is promoted by many governments. This model is marked by the tendency of "entrepreneurial government" administrations withdrawing from welfare and yielding to "market based public administration" led by private business interests, even as States, beset by economic hardships due to the Covid 19 induced economic slowdown, seek to withdraw from welfare programs and increasingly privatize sectors which though economically high, are crucial for social and ultimately political stability. Ignoring these crucial imperatives can increase social, economic, and political cleavages. Scholars emphasize the need for a participatory grass root level involvement of people and civil societies instead of a private sector mediated, market driven and Government imposed e-Governance model [24]. This would necessitate a legislative effort to promulgate legal and structural measures and mechanisms to offset the negative impacts of unbridled technological reliance [25], while ensuring that instead of a mechanical solution seeking through the application of technology. Technology is indeed a tool, and a force multiplier for achievement of the policy objectives of the administration, but a more important component of effective and

humane e-Governance is empathy and concern for the dispossessed, only which can mitigate the digital divide.

Conclusion

The issue of unequal digitization and penetration of e-Governance benefits accessible by different sections of society generally, and of different students to online education particularly as a result of differential digital access is a crucial problem as demonstrated by the Covid 19 pandemic. There is a need to engage with the problem from a human empathetic perspective rather than a technocentric overreliance.

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Religious Values in Javanese Poetry Text as The Fundamental Education Capital for Society 5.0

Dwi Bambang Putut Setiyadi[1]

Introduction

The industrial revolution 4.0 has an impact on very large changes in society. Fukuyama said that the world community has entered a new era, namely, there is a major change in digital technology which is experiencing a very rapid evolution around the world, such as the Internet of Things (IoT), Artificial Intelligence (AI), and robotics are bringing significant changes to society[1]. In general, the industrial revolution 4.0 is marked by the existence of full automation, the digitalization process, and the use of electronic devices, and information systems [2], [3]. is a combination of technologies that reduce or eliminate the boundaries between the physical, digital, and biological world[4]. These technological advances have an impact on human life around the world. The revolution will fundamentally change the way of life, the way of working, and the way of relating to one another. All stakeholders, society, academics, various public and private sectors must respond to these changes in an integrated and comprehensive manner [5].

With the advent of the digital era, in January 2016, the Japanese Cabinet was presented "Society 5.0" as the core concept in the 5th Science and Technology Basic Plan[1]. Society 5.0 or super-smart society which was initiated by the Japanese government is a concept that considers technological aspects to facilitate human life. Besides the technological aspect, the humanities aspect is also applied so that there is a balance in the implementation of the technology. Society 5.0 is a concept of a human-centered and technology-based society. This concept was born due to the development of the 4.0 industrial revolution which is considered to have the potential to degrade the role of humans [4], [6]–[8]. Through society 5.0, it is hoped that it can become new wisdom that can increase human capacity to open opportunities for humanity.

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For this reason, Indonesia needs to prepare the right strategy in welcoming the arrival of this new era that has become a world trend. This strategy can be carried out through various channels, including education according to the topic of writing. Through the educational path, this can be done by providing students with knowledge related to religiosity values. This is so that there is a balance between hard skills and soft skills possessed by a student. Religiosity values can be obtained through the multiethnic and multicultural richness of the Indonesian nation's culture [9]. In addition, it can also be extracted from traditional literary texts in each region. Literacy materials that are sourced from traditional literary texts generally contain religiosity values. Furthermore, religiosity values are implemented in Indonesian language subjects, for example, which are given to students according to their level. From the knowledge of religious values, it is hoped that students will have a strong educational fundamental capital for society 5.0 to face technological advances that can make a person complacent and become his slave.

The literary text that contains religiosity values in this discussion is in the form of Javanese poetry, which is called *tembang macapat*. The *macapat* song (*tembang macapat*) is traditionally referred to as *sekar* or *tembang macapat* [10], [11]. *Macapat* songs occupy a major place in the new Javanese literary stage, especially in the Surakarta era at the beginning of the XVIII century. This period is also called the era of restoration of Javanese literature because many old Javanese literature texts were written back into the new Javanese language, which is better known as *Sêrat Jarwā*. During this period almost all literary texts, both in the form of restoration and work of the poets of the period, were written in the form of *sekar (tembang)*. Some of his restoration works include *Sêrat Rama, Serat Bratayuda, Sêrat Arjunawiwaha, Sêrat Lokapala, and Sêrat Dewaruci*. The famous poet at this time was *R.Ng. Yasadipura I* and *II*. At the end of the XVIII century appeared the poet of *R.Ng. Ranggawarsita* who wrote *Sêrat Paramayoga* and *Sêrat Pustaka Raja* in prose. But then he wrote more poetry. Other well-known poets at this time were *Kanjeng Susuhunan Pakubuwana IV, Kyai Sindusastra, Kanjeng Pangeran Arya Kusumadilaga, Kanjeng Gusti Pangeran Adipati Arya Mangkunegara IV, Kanjeng Sinuhun Pakubuwana IV, and V*.

Besides *Serat Wulangreh* by *Kanjeng Susuhunan Pakubuwana IV*, also include *Serat Wulang Sunu, Serat Wulang Putri, Serat Wulang Tata Krama,*

Donga Kabulla Mataram, Cipta Waskitha, Panji Sekar, Panji Raras, Panji Dhadhap, Serat Sasana Prabu, and Serat. Polah Muna-Muni, and so on. On this occasion, we will discuss the religiosity values contained in *Serat Wulangreh*. Nurgiyantoro stated that the presence of religion and religiosity elements in literature is as old as the existence of literature itself, even literature grows from something that is religiosity in nature. Mangunwijaya said that in the beginning, all literature was religious [12]. Therefore, literature can influence the attitudes and behavior of the readers to be religious [13]. Religious and religion are closely related, side by side, and can even merge into unity, but in fact, both point to different meanings [7], [14], [15]. Religion is more directed towards the institutional worship of God with official laws. Religiosity sees the inner aspect, the vibrational ripples of the personal conscience, the totality of the depth of the human person. Religiosity includes all relationships and consequences, namely between humans and their creators and with each other in everyday life [16].

Discourse is often interchangeable with text. In this paper, both terms are synonymous [17]. In the *Serat Wulangreh* text, there are implicatures in the form of teachings given by the author/speaker of the text to readers/listeners. What is conveyed by the speaker should be understood by the listener, so that good interaction occurs? Inference obtained from the existence of the same socio-cultural knowledge between speakers and readers can make a speech also have the same meaning by speakers and speech partners. Implicature is a speech that implies something that must be interpreted by the listener/reader. Implications are probabilistic because what is meant by speakers cannot be known with certainty [5], [6]. The discourse of *Serat Wulangreh* contains the values of religiosity education, character, politeness, politics, social, economic, and so on. However, only religious values are the focus of discussion, namely the relationship between humans and their creators which is the focus of discussion. The implicature revealed from the discourse of *Serat Wulangreh* relating to religiosity values is that readers/listeners carry out the message content of the speakers written in the song. The messages about religious values contained in the *Serat Wulangreh*, it is hoped that it can become basic education for students from an early age.

Discussion

Serat Wulangreh is a literary work in the form of the *macapat* song. The phrase *tembang macapat* is formed from the words *tembang* or *sekar* and *macapat* [10], [11], [18], [19]. *Macapat* is a form of traditional Javanese poetry where each stanza has a certain line of sentence (*gatra*), each gatra has a certain number of syllables (*guru wilangan*), and ends at a certain final rhyme sound (*guru lagu*) [20]. In *Serat Wulangreh*, there are teachings that are actually addressed to the descendants of the King. However, because the poem was in the form of a tembang and at that time the song was so popular in the community, the community finally followed that teaching. Because the song is very close to the community, it is transformed into local wisdom that is owned by the Javanese people. The form of the poem is in the form of a *macapat* song consisting of 13 stanzas, namely *Dandanggula* are 8 stanzas, *Kinanti* 15 stanzas, *Gambuh* 17 stanzas, *Pangkur* 17 stanzas, *Maskumambang* 34 stanzas, *Dudukwuluh* 18 stanzas, *Durma* 12 stanzas, *Wirangrong* 27 stanzas, *Pucung* 22 stanzas, *Mijil* 25 stanzas, *Asmaradana* 26 stanzas, *Sinom* 32 stanzas, and *Girisa* 23 stanzas [11] . There are 276 verses and 1745 lines in total.

Religious in Javanese Poem Serat Wulangreh

The results of the study on religiosity values in Javanese Poetry *Serat Wulangreh* are described as follows.

1) God is perfect

In the *Serat Wulangreh* text, there is a teaching to the children and grandchildren or all the descendants of the king, as well as the whole Javanese ethnic society (hereinafter referred to as O2) that God has a perfect nature. The perfection or the omnipotence of God's character is expressed, among others, through mentioning Him as follows.

a. *Hjang Agung* 'The Great One' (309, 516, 521, 836).

b. *Gusti Kang Murbā* 'God is Almighty' (448).

c. *Hyang Widdhi / Widdhi* 'God is Strength' (417, 419, 592, 900, 949, 988,997, 1111, 1324, 1338, 1418, 1451).

d. *Kang Murbā Masesā* "Ggod is Created Everything and Mastered (611).

e. *Hyang Manon* 'The Omniscient' (1001,1031).

f. *Hyang Kang Misesā* 'The Master' (1178).

    g. Hyang Mahā Mulyā 'The Noble One' (1571).

    h. Hyang Suksmā 'The One and Only' (1577, 1580, 1676, 1682, 1688).

    i. Kang Amurbā 'God is Created Everything' (1587).

    j. Kang Misesa 'The Master' (1588).

    k. Allah 'God' (1663, 1711).

This mention of God is influenced by Sanskrit and Arabic. Those who have converted to Islam tend to use the title Allah. These names all have Implicatures for the perfection of Allah that no one can imagine.

2) You should study the Holy Quran and the teachings of Islam

In-text (21) there is a teaching to O2 that the teachings stated in the Koran are perfect teachings for human life. In it, there is a complete teaching about the guidance of life, both in this world and the hereafter. To achieve self-perfection based on the Holy Scriptures, O2 must study to know things about Islamic teachings and the contents of the Holy Book. If you are studying on your own, you don't know how to find a teacher.

3) Choose a good religiosity teacher, master the four Islamic principles, and act according to the teaching source

The teaching in this text is in the form of a request that O2 learn from people who understand the contents of the book such as religiosity teachers or scholars. However, it is not just any religious teacher we choose, but teachers who have certain criteria. This is revealed in the text (31 - 38). In the verse above, there are Implicatures in choosing a teacher, so be careful because many people like to peddle their knowledge. This person claims to have mastered the Islamic creed, even though he does not necessarily understand the Koran properly. This is what should be watched out for. The criteria for a good teacher must indeed be an option for Javanese ethnicities to produce students who are truly capable of studying Islam perfectly. Currently, there are very many Islamic religiosity teachers. To choose a good religiosity teacher must meet the criteria as mentioned in this song. Therefore, it must be carefully considered in choosing a teacher, namely considering whether or not the teacher is familiar with four things related to the teachings of Islam, namely *Dalil, Hadis, Ijmak*, and *Kiyas* which are sourced from the holy book or the scholars. If not, it means that he is not a good teacher, but if it has been mastered by a teacher, then he can believe

in that teacher. A teacher who does not master it means that he is only looking for money or profit. This is revealed in the following array (46 - 50). So, the criteria for a good teacher must indeed be an option for Javanese ethnicity in order to produce students who are truly able to study Islam. Currently, there are so many Islamic teachers that they can choose the teacher who has the best criteria.

4) To carry out the command of syara ', prayer (and other pillars of Islam)

Religiosity that can be expressed from this part of the text is in the form of a request that O2 carry out the commandments of syara 'with faith or physical and mental stability (1092). Also so as not to abandon the five prayers, including the five pillars of Islam. All of these should be heeded and carried out so that they can be felt to the heart and can bring out the light of the heart. Also, understand Dalil and Hadith, and obey the rules of Allah through His prophets. Dalil and Hadith are complementary in Islamic religiosity principles which must also be understood. At this time Islam has become teaching that is widely adhered to in Javanese ethnic communities, although there is still a strong influence of Hinduism in the behavior of daily life, such as mystical practice, meditation, and so on. Also, so as not to leave prayers. All that should be heeded and carried out because it will lead to brilliance. This is the first step in implementing Islamic law. All of this is revealed in the text (1090 - 1117). Apart from that, from this verse, it is also, revealed that the greeting or O2 is always grateful for all the gifts received because without His will it would not happen. After that, the speaker hopes that the congregation will also remember all the goodness that has been given from Him. Also be surrendered to God's will. This is revealed in the text (1104 and 1118).

5) Understand destiny

The destiny of death is also expressed in *Serat Wulangrèh*. O1 asks O2 to understand that there is a destiny about when someone is born and when someone dies. Therefore, O2 was asked to perform five prayers. The fifth prayer is worshiping Gusti Kang Amurbā or Almighty Allah (another prayer is discussed in another section on the discussion of human-human relations) who has predetermined when O2 will be born and when the recluse will return to Him. Allah has also provided clothing, food and shelter to O2 (447 - 450). Without His blessing, O2 will not get all of that. Therefore, O2 is obliged to worship Him.

The prayer is a manifestation of someone's gratitude to the Creator. In addition, related to destiny is also mentioned in another array, namely the line (1125 - 1131) which states that the living will eventually die. Implicature to understand that a person's age is the destiny of Allah. Those who don't believe should ask scholars. For those who already know, let it be deeper; Regarding His occultation, it should also be understood about null and void. Destiny in Javanese culture is considered irreversible because it has become God's command. So, there is a belief that a person's age or life or death depends on God. This is revealed in the array (1569 - 1576). Still related to destiny, it is also mentioned in another Wulangrèh line that contains Implicature so that the greeter always remembers that the living will eventually die, so don't be complacent about having fun (1577-1584), which mentions the short life span of humans. determined by Him.

6) Let O2 be narimā and mindful, and waspādā

Implicature which can be expressed from the following discourse (934, 963, 974, 1728, and 1744) is a request that O2 be *narimā* 'accepting' and *eling* 'always remembering God'. In Javanese culture, the *narimā* attitude of 'accepting what is' is an attitude that is ingrained in daily Javanese ethnic life. *Eling* is the attitude of always remembering The Almighty because everything God determines it. Mindfulness is often used as an attitude to realize everything that exists and occurs in humans that all of it has become His will or destiny.

7) Please deepen the knowledge of religion

Implicature can be expressed from the following discourse (1079-1090) in the form of a request that O2 gain profound knowledge because the difference will be seen from people who do not have knowledge or knowledge. People must have the knowledge, especially the science of religion law, because it is very necessary for the spiritual and physical. General science can enrich the mind and can solve life's problems. Besides being able to use religiosity law as a means of solving life's problems, it can also be used to remind people to always remember the Creator and to reassure a human being. Science must also be studied every day diligently and deeply.

8) Always be grateful and sincere

Implicature which can be expressed from the following discourse (1177-1180 and 1224-1225) is a request that O2 be grateful for what he

received and remember all the goodness that has been given by God. In this concept, there is a teaching that someone is always grateful for the gifts that have been given to us. Also, let yourself surrender to *Gusti's* will and remember all the good he has received. Day and night O2 is also obliged to give thanks to the One and Only. In addition to gratitude, O1 is also obliged to be sincere in doing (1224). Sincerity is a sincere attitude that is needed when someone is doing service.

9) Always pray and dhikr to God Almighty

Implicature which can be expressed from the following discourse (1181 - 1187) is a request that O2 does not stop praying to God day and night for the glory of the kingdom. A prayer that is earnest has the possibility of being answered by God. It can also benefit many or all of the people in that country. The prosperity of the kingdom also means the prosperity of the community. Implicature, which is related to another request, is that parents always pray for their offspring. As for the prayers offered relating to requests that their offspring live long (1666); always get along well with all the brothers (1667); have children of complete sex, male or female (1670); being an example or being imitated by others (1694, 1696); understood good and bad behavior (1685); able to carry out all orders (1702); have a sincere spirit in life and have a prosperous life (1703). In addition, a human being will always ask the Creator to always be kept away from sin, given the convenience, and grace (1706-1713). This request cannot be separated from the existence of humans as weak creatures who are often powerless in overcoming a problem. For this reason, O2 is expected to always be kept away from sins that cannot be avoided, given the convenience of all the trials that Allah has given, and given gifts to make it easier to overcome all the problems at hand.

10) Get close to God

Implicature which can be expressed from the following discourse (1400-1408) is in the form of a request that O2 attains closeness to God. The imperative of hope that arises from this part of the discourse contains an appeal for O2 to get closer to God. The attainment of closeness is not sudden or easy, but gradual. Initially, you have to do your best first, little by little, by eating less and sleeping. The next line is a hope that the congregation can get closer to Allah, even as *kawula-Gusti* unites. The condition is that they must be clean in body and

physically and mentally clean, not interfered with by lust and anger. The closeness between *Gusti-kawula* in Islam is called the level of *makrifat*, which is the highest level of human relations with God.

11) To always cultivate the mind

Implicature which can be expressed from the following discourse (W, 81–86) is a request that O2 always cultivates the mind. This is so that O2 has a high inner sensitivity. You do this by reducing your sleep, eating, and partying a lot. In this case, the Javanese ethnic imitates their ancestors who like to cultivate the mind in an ascetic way. Within the Javanese ethnic community, there is a knowledge called *nglakoni* 'meditating or eating and sleeping less for a certain time to ask God to make his request come true'. Javanese ethnic who have embraced Islam do all this through a lot of prayers, dhikr, or night prayers.

12) Do not leave the pillars of Islam

Implicature which can be expressed from the following discourse (1094-1104) is in the form of a hope that O2 will not leave the pillars of Islam. The five pillars of Islam are obliged to carry out the law for its adherents, except for those who are unable to carry them out. If you leave the pillars of Islam, it will result in a person who has embraced Islam to reduce his level of worship. In the *tembang macapat* discourse it is said that if you don't carry out it will be 'empty'. *Gabug* is used to refer to rice stalks that appear to have old seeds, but have no content or seeds. Another line which states that the pillars of Islam are obligatory in the array (1104 - 1110). However, there are also obligations that are allowed to not perform because of incapacity (for example, hajj).

13) Don't be hasty

Implicature which can be expressed from the following discourse (953–970) is a request that O2 does not rush in waiting for the ability to arrive. Ability in this discourse is related to religiosity attitudes, namely the ability to get closer to God. This cannot be done instantly and carelessly. So, it must be done seriously, diligently, and patiently, and there is no misunderstanding. Haste causes those who want to immediately reach closeness to God not safe. O2 should not be ashamed to show his ignorance, by asking a lot of questions in demanding *ngelmu* to achieve self-ability in dealing with various problems.

14) Do not be complacent because life is likened to dropping by a pomp

Implicature which can be expressed from the following discourse (1126 - 1132) is in the form of an appeal so that O2 does not have a hobby of life that is just for fun. Also, to always remember that the living will eventually die. God has predestined when humans will be born, live, and die. Life is only for a short time, it is like dropping by and saying 'just stop for a drink', so that when we are given the opportunity, we should use our time as well as possible to do useful things. O2 should not be complacent and use his time only for fun in his life. O2 must always be aware, live not long.

15) Don't sêmbrānā

Implicature which can be expressed from the following discourse (1112 - 1118) is a request that O2 does not *sêmbrānā* 'not really or willingly'. In studying religion, be serious, not do sêmbrānā. *Sêmbrānā* results in a person's poor ability to study science or carry out a task or job. This situation makes a person lose his self-esteem because he is considered unable to solve serious problems. In completing a mandate, it should not be done playfully or not seriously.

Conclusion

Religious is needed for society in facing the progress of the times. This is due to the assumption that technology must be mastered by someone so that it is not out of date. Thus, people then pursue the advancement of technology without paying attention to their surroundings. He forgot his nature as a human being who is the people of the One and Only. Even if he has mastered technology, people tend to be complacent and do not remember having to perform worship or carry out their obligations under the teachings of their religion. Japan has done in the face of the 5.0 era society deserves a response so that humans must keep in control of technology, not technology that nurtures humans. Religiosity is one way that humans continue to exist in this all-digital era. Students are expected to have basic knowledge of religious values to face the era of society 5.0. This can be done by understanding the contents of the message contained in the *tembang macapat Serat Wulangreh*. The main goal is that Indonesia's young generation can face the progress of the times without forgetting to worship Allah.

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Wulang Reh as a Teaching Material for Literature in Society 5.0

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Introduction

The 5.0 era society will survive by integrating the 2.0, 3.0 and 4.0 era human beings. This society has the ability to adapt, agility, mobility, and reactivity. Society 5.0 understands the fact that mutations, changes, and evolution are constants that can be observed on a daily basis, which are also reflected in infrastructure, knowledge, and skills [1].

The concept of community 5.0 was initiated in accordance with 17 SDGs, one of which is the field of Education. Education is one of the keys to measuring the success of sustainable development, where the quality of human resources is at stake. The superior quality of man can be seen from his creativity, taste, and will. For that, teaching materials are needed that can develop competitive advantage, especially at the level of attitude and behavior [2].

Wulang Reh chosen as teaching material because of four things. The first, the theme of *Wulang Reh* by Sri Susuhunan Pakuwana IV is noble teachings, such as how to choose teachers, wisdom in associating, personality, manners, teachings of devotion to parents, divinity, devotion to government, self-control, family, safety, sincerity and patience, worship well, the teachings of the sublime. Second, there is beauty in *Serat Wulang Reh's* with the rhythm and sound of language including *purwakanthi swara, purwakanthi guru swara, and purwakanthi lumaksita.* Understanding of diction (word choice), alliteration, spelling, concrete words, figurative language, and meter is found in *Serat Wulangreh* [3].

The third reason, the value of moral education in *Serat Wulangreh* is the value of moral education the relationship between man and God includes surrendering to God, obedience to God, the value of moral education the relationship between man and neighbor, the value of

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moral education the relationship of man with personal self, and the value of religion. The four teachings contained in the fiber of *Wulang Reh* are the teachings of governance 'the teachings about the command to give lessons to achieve the nobility of life, the teachings in the fiber *Wedhatama* is the teachings of the science of virtue [4]

Learning literature in the era of society 5.0 requires teaching materials, strategies and evaluations appropriate to the era. The strategies and evaluations in question are related to learning patterns where information technology has become part of the daily lives of learners. Teaching materials are the same. Teaching materials area set of learning tools or tools that contain learning materials, methods, limitations, and ways of evaluating that are systematically and interestingly designed in order to achieve the desired goal, namely to achieve competence or subcompetence with all its complexity [5].

Systematic and interesting literary teaching materials will make learning beautiful and meaningful. Teaching materials are one of the important components in literary learning that need special attention, especially in terms of content or content. The contents of *Serat Wulang Reh's* are very famous for its beauty. Many scholars and intellectuals examine the contents of *Serat Wulang Reh's* in relation to whether or not *Wulang Reh* is still relevant in the era of society 5.0 [6]. How to fill the famous *Wulang Reh*? Still relevant *Wulang Reh* learned in community 5.0?

Discussion

The contents of *Wulang Reh* are very famous, among others, in terms of understanding the grades, the command to teach the knowledgeable, to understand the source of knowledge, to always sharpen the heart by reducing will and sleep, and the command to be not arrogant [7].

Understand the signals (grades) of life by processing the senses.

In the book of *Wulang Reh* inner sensitivity is a priority that must be sought and practiced in life in order for this life to be maintained. *Sasmita* will not be able to be arrested without serious effort, such as curbing lust.

> *Sasmitaning ngaurip puniki, mapan ewuh yen ora weruha,*
> *tan jumeneng ing uripe, akeh kang ngaku-aku,*
> *pangrasane sampun udani, tur durung wruh ing rasa,*

rasa kang satuhu, rasaning rasa punika,
upayane darapon sampurna ugi, ing kauripanira.

Signs in this life, it is impossible for you to understand if you do not know it, will not have peace in life. Many claim to have understood the signal (in life), even though they have not processed the taste, the essence of the real taste. Therefore, strive (understand the meaning of that taste), so that your life is perfect. In another stanza it is also mentioned that the way to be able to capture the grade by having high manners, likes to give in, if scolded or advised not to answer (shut up and listen), also if there are those who insult others do not follow. As written below:

Dedalaning guna lawan sekti, kudu andhap asor
Wani ngalah luhur wekasane tumungkula yen dipundukani bapang den
simpangi Ana catur mungkur

Teaching orders to knowledgeable teachers

In *Wulang Reh* it is mentioned that human beings should always study to the knowledgeable. This is in accordance with the teachings of Islam and it is written in the Quran that Allah raises the degree of those who believe and are knowledgeable.

Jroning Kur'an nggoning rasa yekti, nanging ta pilih ingkang uninga,
kajaba lawan tuduhe, nora kena denawur,
ing satemah nora pinanggih, mundak katalanjukan,
temah sasar-susur, yen sira ayun waskitha,
sampurnane ing badanira puniki, sira anggugurua.

In the Qur'an where you seek the true truth, only the chosen ones will understand it, except by His guidance. It cannot be mixed up, it is impossible for you to find (signal truth), even you are getting lost. If you want perfection in yourself, then study.

Nanging yen sira ngguguru kaki, amiliha manungsa kang nyata,
ingkang becik martabate, sarta kang wruh ing kukum,
kang ngibadah lan kang wirangi, sokur oleh wong tapa,
ingkang wus amungkul, tan mikir pawewehing lyan,
iku pantes sira guronana kaki, sartane kawruhana.

However, if you act, son, teacher Choose real, high integrity, understand the law, and practicing. Thankfully if you find a hermit who

is diligent and does not expect rewards from others, he deserves to be your teacher. And know.

There are 4 sources of knowledge: namely evidence, *hadith, ijma, qiyas*

As the caliph on earth (*kalifatullah fil ard*) Paku Buwana IV states in *Wulang Reh*, that the source of knowledge outside the holy book Al Quran still exists, namely propositions, hadith, ijma, qiyas.

> *Lamun ana wong micareng ngelmi, tan mupakat ing patang prakara,*
> *aja sira age-age, anganggep nyatanipun,*
> *saringana dipun baresih, limbangen lan kang patang,*
> *prakara rumuhun, dalil qadis lan ijemak,*
> *lan kiyase papat iku salah siji, anaa kang mupakat.*

If someone talks about science, but does not fit into four things, do not be too quick to assume that it is true. Filter it so that it is clear and measure it with four things, namely evidence, *hadith, ijmak, and kiyas*. One of the four things must be appropriate. In other verses it is mentioned that people who do not base themselves on these 4 rules will be dangerous for breaking the rules:

> *Ana uga kena denantepi, yen ucul saka patang prakara,*
> *nora enak legetane, tan wurung ningal wektu,*
> *pangganggepe wus angengkoki, aja kudu sembahyang,*
> *wus salat katengsun, banjure mbuwang sarengat,*
> *batal karam nora nganggo denrawati, bubrah sakehing tata.*

You should not accept (signal) if you are free from the four things, because it is usually not good. (You will) feel that you have practiced 'behavior' so that you do not have to pray, finally leave the Shari'ah, do not need to know which is haram and void. It will break the rules.

The command to sharpen the heart by reducing eating and sleeping

> *Padha gulangen ing kalbu, Ing sasmita amrih lantip,*
> *Aja pijer mangan nendra, kaprawiran den kaesthi,*
> *pesunen sariranira, sudanen dhahar lan guling.*

You get used to sharpening your heart, so that (your mind) sharply catches the signal, do not just always eat and sleep, reach for the attitude of heroism, train yourself by reducing eating and drinking.

The command to sharpen the inner sensitivity to be sharp and to leave excessive behavior, is repeated in *Serat Wulang Reh*. This means that the lifestyle offered in *Serat Wulang Reh* is a pattern of simplicity, simplicity.

> *Dadiya lakunireku, cegah dhahar lawan guling,*
> *lan aja sukan-sukan, anganggoa sawatawis,*
> *ala watake wong suka, nyuda prayitnaning batin.*

Make it an act, reduce eating and sleeping, do not like to party pora, use as necessary (because) the habit of people who like to party pora is a decrease in inner sensitivity.

The order does not apply arrogance (arrogance).

> *Yen wis tinitah wong agung, aja sira gumunggung dhiri,*
> *aja leket lan wong ala, kang ala lakunireku,*
> *nora wurung ngajak-ajak, satemah anunulari.*

If you are destined to be an adult, do not be arrogant, do not approach people who have bad habits and behave badly, because like or dislike (it) will spread to you. This temple is very clear in its meaning. That is, magnifiers should not be arrogant and should not approach evil people for fear of being infected. In Javanese proverb is known the saying "Do not approach the buffalo hut".

> *Nadyan asor wijilipun, yen kelakuane becik,*
> *utawa sugih carita, carita kang dadi misil,*
> *iku pantes raketana, darapon mundhak kang budi.*

Even if you come from a lowerclass descent, but have good behavior or have a lot of stories that contain (useful), he should you *gauli*, (it) will increase your wisdom. This means that in our association we should not discriminate in terms of status or class. Only people with bad habits should be avoided.

Conclusion

Wulang Reh was chosen as the teaching material of literature in the era of society 5.0 is very appropriate because *Wulang Reh* has 4 things, namely, his noble teachings that can be a shield in the life of society 5.0. in addition, the language is very beautiful with typical expressions as below in mentioning the 6 bad qualities of man:

Aja lonyo lemer genjah,
angrong-pasanakan nyumur gumuling, ambuntut-arit puniku, watekan
tan raharja,
pan wong lonyo nora kena dipunetut, monyar-manyir tan antepan, (Bait
Pangkur).

Lonyo meaning not determined. *Lemer* means everything. *Genjah* means unreliable. *Angrong prasanakan* means interrupting someone's wife. Rubbing means not being able to keep secrets. A sickle tail means good on the bad face on the back. So all the properties in the above stanza are bad. In the temple of *Wirangrong* we are commanded not to rush to speak, to restrain ourselves, not to swear much, to be strong in birth and inwardly. The other ugliness is, do not like to reveal secrets to women. Here women are considered to be human beings who like to reveal secrets.

The subtlety of character caused by the habit of reading the famous book *Wulang Reh* is very subtle in language but easy to interpret. Meaningful steps that are easy to take, namely through content analysis Krippendorff's plan (in Ismawati, 2013) [7] which includes:

1. Data acquisition: Unitization, Sampling, Recording.

2. Data reduction

3. Inference withdrawal

4. Analysis

What must be remembered is the Asmaradhana temple below

Poma-poma wekas mami, anak
putu aja lena,
aja katungkul
uripe, lan aja
duwe kareman,
marang papaes
donya, siyang
dalu dipunemut,
yen urip manggih antaka.

Wulang Reh full of sublime teachings, such as how to choose a good teacher, that is, a perfect teacher, understand the law, and do not depend on the giving of others. Also wisdom in associating, personality, manners, teachings of devotion to parents, to God, devotion to government, self-control, family, safety, sincerity and patience, worship

well, teachings of greatness. By learning and teaching Wulang Reh we will be a resilient millennial generation in terms of personality in the era of society 5.0.

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Spiritual Power Steadies Nation Characters in the Era of Society 5.0 Based on Pancasila

Farhana[1] and Mimin Mintarsih[2]

Introduction

Character represents the value of human behaviour toward God Almighty, himself, fellow human beings, environment, and nationality. It is manifested in his thought, attitude, feeling, word and action based on religious norm, law, manner, culture, and customs [1]. In line with the statement of Agus Wibowo, that character reflects specific features of an individual in thinking and behaving, him being part of family, community, nation and state environment [2].

Therefore, character means attributes inherent to individual; personality reflected in his attitude, thought, and action. Characters construct a family, community, nation and state. Interaction among individuals with different personality in general gives birth to social habit which generates national character. National character is an identity or characteristic of a nation which differentiates one from the other. It is derived from behavioural values fully believed by a nation.

As officially stamped in Pancasila and the Preamble of the 1945 Constitution, the basic character of Indonesia is to have faith in God Almighty. This is similar to the first principle of Pancasila, which then applied in the four following precepts, as well as mentioned in the Preamble of the 1945 Constitution. Indonesian people acknowledges independence as a form of God's blessing. Therefore, the values of national personality must be maintained and preserved for the continuity of this state. Education is one way to preserve national character.

National Education is based on Pancasila and the 1945 Constitution, which are rooted from religions and cultural values. Based on pedagogical point of view, National Education aims to foster morals of Pancasila to maintain national resilience in all aspects of

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life. In other words, the purpose of National Education is to increase faith, piety, and noble morals of the people in order to enrich the life of nation. Therefore, national character of Indonesia has the quality of spiritual strength which represents the quality of national character.

To date, Indonesia as a nation state has experienced changes in all aspects of life. Globalization and modernization toward the era of Society 5.0 may bring negative effect on the life of the nation and state when it loses its way of life. Lack of understanding and not applying the values of Pancasila as a whole and systematically, the national characteristic will be faded. It is concerned that ideological crisis will deeply affect national character, further away deviating from the values of Pancasila.

In facing these challenges, elements of this nation in general and the authority in particular must back to the basic, contemplate and mediate by putting forward faith in God Almighty for strong spiritual power and sense of justice.

Discussion

National Character Education

Law No. 12 of 2012 emphasizes that the implementation of National Education System shall increase devotion to God Almighty and strengthen the noble morals, for the values to be manifested in intelligent behavior and balanced physical-spiritual life. The goal of National Education is to embed good citizen personality, i.e. possessing religious, national and state awareness. Therefore, the state advances science and technology (society 5.0) based on religious values in the context of advancing civilization and the welfare of mankind.

In general, criteria of being good human being, good community member, and good citizen of a society or nation is determined by the culture of community and nation itself, which reflected in national outlook.

Based on the above discussion, it can be emphasized that character education represents efforts which are systematically designed and implemented to help students understand the values of human behaviour related to God Almighty, self, fellow humans, environment, and nationality for them student's thought, attitude, feeling, words, and action to be based on religious norm, law, good manner, culture and

customs. Spiritually strong community is an indicator of successful educational policies. It includes shaping strong personality to survive in the midst of Society 5.0.

Understanding Pancasila Appropriately

Unity of the nation is of the goals of national life, which requires unified unity to achieve. Therefore, Pancasila should not be understood as five separate objectives, but as a five-facet-unit. Five principles of Pancasila is a unified whole, thus shall not be interpreted separately.

As a unit, the five principles of Pancasila shall not be interpreted separately. For example, one can not understand the fifth principle alone without including the four others. Therefore, Pancasila is similar to the five senses that must be cared for by a complete human being. Likewise, a boxer need to clenc his five fingers to punch. Hazairin in his book "Demokrasi Pancasila" mentioned that, "Pancasila is unlike a chair, which has back legs, arms, backsrest, and armrests. Partial thinking will lead to abstract analysis that obscures understanding the composition. As you talk about chair legs, talk about it in its distinctive composition, because the composition of living room chair, kitchen chair, a recliner is different. Composition of Pancasila UUD 1945 is different from Pancasila UUD 1950. You may compare coffeemix to Pancasila. Coffeemix consists of balanced milk, coffee, sugar and hot water, which are processed and blended well for it to be delicious drink. The ingredients were processed separately, each material has its own value, but not as coffeemix." [3]

Pancasila in terms of unifying tool must be used as living garment for every Indonesian. The five principles of Pancasila as stated in the Preamble of the 1945 Constitution are: First, Belief in the One and Only God, which leads to the complete understanding of just and civilized humanity; then if the following principle, i.e. "Just and civilized humanity" is complete, then one will understand purpose of the third principle, i.e. "The Unity of Indonesia" with respect to internal relations and external affairs. From the third principle, it arises the understanding of the fourth precept, namely "Democracy led by wisdom in deliberations/ representatives", as the duty of each nation to have self-control. The nation perceives freedom as an engagement. Thus democracy in harmony refers attached freedom, not because of coercion but based on the belief in the One and Only God and

humanity. It is recognized that consciousness requires supervision, to keep it stay within boundaries which originate from the belief of the One and Only God as well as just and civilized humanity, which in Islamic terms originates from tawhid and righteous deeds. Only then can the fifth principle to be achieved, namely "Social justice for all Indonesian people". As the last facet, the fifth principle must produce a just and prosperous society. It also has four-layered fences, namely the One and Only God, just and civilized humanity, Indonesian unity, and Democracy led by wisdom in deliberations/ representatives. If the fruit tree is to be planted outside the four layered fence, for example no fence of "the One and Only God", then the second fence "Just and civilized humanity", then the first fence will be filled by desiderative humans who impose individual desire which will cause unjust and uncivilized humanity. When a citizen, regardless knowing that the existence of the One and Only God, still does not have desire to channel his deeds by being a leader and builds his deeds solely on the humanity, then this will break the integrity of nation.

Of the five principles, the first one does not belong to human creation. The first principle of Pancasila comes from divinity, while the other four were derived from togetherness among human beings based on experiences and social interaction which resulted in normative life order; life that is guided by moral principles and confined by the rule of law. The first principle poses as the foremost precept which has driving force (dynamisch motief) for: Humanity, Justice, Morality, Virtue, Love and Mercy, as well as sense of Beauty. These six elements are embedded in human being, since "All mankind are one", each has equal right and degree. Both men and women (have the same human dignity) shall maintain solidarity and be obedience to God, as prerequisite for understanding social behavior (social pratice) contained in human relationships. The six divine elements are also called "Het Goddelijke in de mens" by the Dutch. Without these elements, human will loose his dignity. To foster these elements, it is necessary for human to receive guidance. He may also learn from role models such as the authorities, leaders, and educators/ teachers, to impart the spirit and values of Pancasila to young generation.

Spiritual Power based on Pancasila Paradigm towards Society 5.0

Based on juridical perspective, Pancasila is the basis of the state in regulating the life of the nation as contained in the 1945 Constitution

of the Republic of Indonesia. Consequently, national development must be imbued with spirituality. Spiritual comes from the word spirit which means "soul, mental, spiritual and religious." [4] The 1945 Constitution, i.e. Article 29 states that the state recognizes the existence of religion. The state acknowledges Islam, Christianity, Catholicism, Hinduism, Buddhism and Confucianism; all which colored the history and the nation's personality. The first principle of Pancasila, which animates and includes the next four precepts, is the crystallization of "God Divinity" value that have long been embedded in the Indonesian people.

For this reason, it is necessary to foster God Divinity value through guidance and examples by the rulers, leaders, and educators. Article 31 of the 1945 Constitution mentions that every citizen is obliged to teach; thus to educate does not necessarily means teaching at schools, but by giving examples, especially those who have responsibility for the safety and welfare of the nation. Thus, Pancasila shall be the paradigm well perceived by the state and its people.

The word paradigm comes from Greek "paradeiknunai" (para-'beside' + deiknunai 'to show'). In English it means example, model, pattern and role model. Related to paradigm, as a solution to today's challenge faced by the Indonesian is, for all components to return to the basic path, belief in God the Almighty. This requires contemplation and meditation of the leaders who have authority to execute the development on the basis of Faith, Knowledge and Charity.

Faith and Knowledge without Charity tends to sterile, and vice versa Charity without Faith and Knowledge tends to be misleading and immoral. It is clear that Pancasila as the paradigm of the nation shall be applied in all aspects of life, include in political, economic, social, cultural and legal development. Political development requires individuals with noble value, characters, and spirit of Pancasila. Thus, constitutional implementation must be based on Pancasila which has three kinds of life perfection, namely:

1. Spiritual cleanliness (implied in the first principle)

2. Modesty in action, behavior, and temperament (implied in the second principle)

3. Politeness and kindness in speech and words (implied in the fourth principle)

Believe in God, civilized and good at language compose a triangle that will strengthen unity to achieve a goal, namely social justice for all Indonesian people. There are several paradigma in life, i.e.:

Legal paradigm: 1) Harmonious relationship between the Creator and His creation, 2) Harmonious relationship between individual and society, 3) Harmony among ethnic groups under national unity, 4) Harmony through consensus to maintain togetherness in difference, 5) State guarantees equal rights to fair distribution.

Economic paradigm: 1) Possess ethics and religious moral, rather than materialism, 2) Not performing extortion or human exploitation, 3) Kinship, togetherness, nationalism and economic patriotism, 4) Prioritizing the people's economy and the livelihoods of many people, 5) Equality, the prosperity of society that takes precedence, not the prosperity of individuals or groups.

Political paradigm: 1) Spiritual cleanliness as implied in the first principle, i.e. Belief in the One and Only God, 2) Modesty in deeds, behavior, and manner as implied in the second principle, i.e. Just and civilized humanity, 3) Politeness and hospitality as implied in the fourth principle, i.e. Democracy which is led by wisdom and deliberation or representation.

Cultural paradigm: 1) Right Meditation, 2) Right Understanding, 3) Right Thought, 4) Right Speech, 5) Right Action, 6) Right livelihood, 7) Right effort, 8) Right Mindfulness.

This is why having religious awareness is necessary, which is consequently carried out in the form of good behaviors. Because morals and good behavior are taught through religious education. They are constantly learned and applied in daily life. Divine values that exist in the soul of every human influence his behavior, which automatically generate quality human resources. Therefore, teaching the values of Pancasila is necessary for the moral of the society, and in turn benefit the national resilience.

Pancasila as a philosophical system has an order that must be understood as a whole or unanimously. Only then, it will influence daily life of the society, in line with religious norms, norms of decency, norms of courtesy, and legal norms commemorating the Society 5.0 era.

The concept of Society 5.0 is presented to solve community problems around the world, in which capitalism, economic growth and technological development have yet been able to create a society that can grow and develop independently and enjoy life to the full. The concept of Society 5.0 is the answer to this problem, aiming for justice, equality, mutual prosperity and super smart society [5]. Society 5.0 is centered on the balance between progress in the economic field and solving social problems through a system that integrates virtual and physical spaces [6].

Thus in this Society 5.0 era, to grow spiritual power imbued by the first principle of Pancasila will create society with strong character, who able to solve problems and various social challenges by incorporating industrial revolution innovations, science and religion in harmony.

Conclusion

Constitutionally, Pancasila is the basis of governance. So that it needs to be maintained and preserved as well as actualized for the implementation of state constitution to not losing its direction. Pancasila is a philosophical system, which sequence shall be understood as a whole or unanimously. Comprehension in the unity of Pancasila brings consequences for the application in national development. Citing the lyrics of national anthem "Indonesia Raya", wake the soul up, get the body up; the first aspect to build shall be the spiritual of the people, then the body (material). Thus, building up the soul of the individuals comes first. Components of moral values (knowing, feeling, and action) correlate to superior characters oh human, i.e. having balance relationship towards God Almighty, himself, neighbor, environment, state, and the world in the midst of Society 5.0 era.

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FREEDOM OF LEARNING AND INDEPENDENT CAMPUS: AN INEVITABILITY
Fauzan

INTRODUCTION

Industrial Society 4.0.

Alvin Toffler's thesis who an American futurologist, Toffler writes about the occurrence of the third wave has become a reality. Toffler, in 1980 stated that the changing of the world divided into three waves: 800 BC – 1500 AD as the Agrarian Era; between 1500 AD - 1970 AD the Industrial Age; and 1970 AD - 2000 AD is called the Communication Age [1].

Each wave has specific characteristics. The Agricultural Period has characterized by natural exploration and intensification of agriculture through technology and culminated in Agro-industry. The Industrial Age encourages society as "Economic People" who are eager to increase their capital accumulation. The industrial era is the impact of the Renaissance's emergence in Europe that encouraged colonialism, imperialism, and mass culture. Science and technology are developing rapidly, giving birth to industry in big cities then lead to urbanization. At a certain point, this industrial era had a significant influence on socio-political life. Toffler said that industrial-style, centralized, top-down bureaucratic planning would be replaced by a more open, democratic, decentralized style called 'anticipatory democracy' [2]. Industrialization also creates pollution that causes environmental damage and massive use of non-renewable energy.

Meanwhile, the third wave is called the Communication era. This main era is the development of technology and communication which conditions social life to become an information society. The logical consequence for the development of the information society is the presence of an Open Society. The open society is where the community in its life and behaviour no longer considers differences in origin, language, religion, customs, and culture [3]. Karl R. Popper participated

in providing an explanation of open society with the phrase: *there are characters who have qualifications that are easily interconnected, there is an exchange that leads to change and dialectics and the implementation of cooperation regardless of ethnicity and certain social groups* [3]

Herman Bryant Maynard and Susan E. Mehrtens introduced their thoughts on the emergence of five new civilization's waves. Each era has a determinant factor for people's lives and lives. The five waves are Biotechnology Era (Biotechnology, genetics, Cloning) runs until 2001 AD, Recreation Industry Era (Hospitality, Recreation, Entertainment) provides incentives for the tourism industry until the end of 2015 AD,The era of Mega Materials (Quantum Physics, Nanotechnology high-pressure physics) will develop until the 2030s AD,The New Atomic Era (fusion, lossers, hydrogen and helium isopes) will develop in the year 2050 AD, and the New Space Era (Specsaft, Exploration, Travel, Resource Gathering, Astro-physics) could realize before 3000 AD In this era, the world has indeed become very global. Maynard and. Mehrtens, which forecasts and advocates the rise of a form of eco-globalism in the 21st century.

Cultural Society 5.0.

Society 5.0 is a concept of a human-centered and technology-based society developed by Japan. This concept was born in 2016 in Japan to answer the problem of Industrial Revolution 4.0 that has degradation of human's role potential. The essence of this concept is to integrate cyberspace and the world with high technology such as AI, robots, IoT, and others, to submit and serve human needs [4] . In 2019, in Davos Switzerland, the Prime Minister of Japan, Shinzo Abe, during a presentation at the World Economic Forum (WEF), outlined what society 5.0 is all about. Prime Minister Abe expressed the importance of public supported by abundant data and managing data from a whole world in an integrated manner to serve human needs and interests and increase economic growth in the future.

In an article on the Japan Economic Foundation page, [5] states that digital transformation in several regions or countries uses different terms. The European region uses the term industry 4.0; in North America, it uses the term industrial internet; most parts of Asia call it the idiom smart city; for the Chinese state choose a nationalistic

expression: made in China 2025; while Japan introduced the Society 5.0. All of the terminology used in these various regions refers to a condition where digital transformation in people's lives through IoT, artificial intelligence, robotics, big data, and blockchain. Fukuyama emphasizes that all habits and life in various aspects, such as health, finance, mobility, infrastructure, and others will change in this era, also write the same substance about habits and life that will change in various aspects [6].

In the era of society 5.0, with digital transformation and various smart devices, there will be conditions for pruning and adjusting the work system. The society 5.0 era will solve several spaces, time, and cost constraints by utilizing tailored technology needs. The various technological devices such as sensors, artificial intelligence, and robots use to do jobs that are difficult for humans to do, even with higher levels of precision, efficiency, and safety.

The era of society 5.0 is a result of social metamorphosis. From the community 1.0 period, life is based on nature and the environment and hunting in the tribe form. The 2.0 community is an agricultural community that has been able to explore the natural surroundings. Meanwhile, people of 3.0 can find and run an industry with the characteristics of mass production and urban development. Then the era of society 4.0 is a condition in which members of the community connected by information network technology. Meanwhile, society 5.0 is a society that makes maximum use of information technology to support and sustain human life and interests [4].

In the industrial era 4.0, technology is more focused on automating industrial activities. Nowadays, industrial automation has been running well until turn in the society 5.0 era. Technology helps the social life of society, one of which is in the field of education. Learning in the society 5.0 era can take advantage of the capabilities of technology to increase the effectiveness and efficiency of educational activities. For instance, the application of hybrid / blended learning or Case-Base Learning can overcome space, time, and other inhibiting factors problems. Even education in the era of society 5.0 allows students to collaborate with robots or programs that have designed to replace the role of educators in learning activities [7]

DISCUSSION

Freedom to Learn

Nadiem Anwar Makarim of Minister of Education and Culture of the Republic of Indonesia states the learning process and the implementation of education in Indonesia still has many deficiencies. Nadiem said that giving freedom and autonomy to educational institutions, freedom from bureaucratization, lecturers freed from complicated bureaucracy, and students free to choose their preferred fields. It indicates the education and the learning process are entering a new phase and era. Implicitly, education and teaching in Indonesia are encouraged to adapt to information technology development that provides innovative learning flexibility and allows for improvisation in education delivery.

Moreover, the reality shows that the development of science and technology today has brought enormous changes in various aspects of life. The types of work and ways of working have also changed a lot. Some types of work have narrowed if not lost. At the same time, several new types of work emerged. All social, economic, and various cultural orders contract and try to take adaptive steps with the times. In such dynamic and fluctuating conditions, the world of education (read: tertiary institutions) is required to respond quickly and appropriately. In these situations, it is necessary to transform learning to fit the orders of the times. Educational institutions must equip students and prepare graduates to become superior generations who are responsive and face time challenges.

In line with industry 4.0 and society 5.0, creativity and innovation are the most strategic and fundamental elements. Therefore, educational institutions must make adjustments where creativity and innovation must prioritize in the learning process. Besides, students must prepare and be encouraged to become decisiveness, skilled, flexible, and resilient learners (agile learners).

In the context of tertiary institutions, the Freedom of learning -Independent Campus Policy initiated by the Minister of Education and Culture of the Republic of Indonesia is a blueprint that can be used as a new implementation of education to answer the challenges of the era in industrial era 4.0 and society 5.0. The Regulation of the Ministry of Education and Culture Republic of Indonesia No.3 of

2020 provides space for learning in higher education that is more innovative and progressive. Regulation of the Ministry of Education and Culture Republic of Indonesia accommodates the needs of students who are not only fixed in the study program but provide the opportunity for three semesters to work in fields outside their study program. The Regulation of the Ministry of Education and Culture Republic of Indonesia opens opportunities for students to expand, enrich and increase their horizons and competencies according to their ideals and passions.

The text above is based on the educational philosophy that learning can actually be implemented and occurs anywhere. In essence, the universe learning has no limit because the learning process does not only in classrooms, libraries or laboratories, but can also take in anywhere, such as workplaces, service locations, research centers, or in the community. Aligning the process of providing education with technological developments and changes in society is a necessity. In the context of higher education, efforts to intensify the interaction and collaboration between universities and the world of work and industry (DUDI) will create extraordinary synergy for both parties constructively and progressively. Thus, the colleges will present as springs for the progress and development of the nation, complexion the culture and civilization of the nation [8]

New Approach to Learning Systems

Muhadjir Effendy, when he was still the Minister of Education and Culture, emphasized that the influence of industry 4.0 revitalization in the world of education is inevitable. The education providers must adjust and review the curriculum with an orientation to increase the competence of students. Muhadjir Effendy stated that there are five competencies that students must have to be able to compete in the industrial era 4.0 and society 5.0, among others: Critical thinking; Creativity and innovation; Interpersonal skills and communication; Teamwork and Collaboration; and Confident [9,10].

The Policy on Freedom of Learning-Independent Campus originates from The Regulation of the Ministry of Education and Culture Republic of Indonesia No. 3 of 2020 concerning National Colleges Standards. In Article 18, improvisation and innovation in the learning process accommodated about the fulfillment of the period

and study load for undergraduate or applied undergraduate students can be carried out. First, following the entire learning process in the study program at higher education according to the period and learning load. Following the learning process in the study program to fulfill part of the period and the learning load. Meanwhile, the others take part in the learning process outside the study program.

Based on article 18 of The Regulation of the Ministry of Education and Culture Republic of Indonesia No. 3 of 2020, the concept of Freedom of Learning-Independent Campus is implemented. In the implementation, students have the opportunity of one semester or the equivalent of twenty credits of studying outside the study program at the same college; and a maximum of two semesters or the equivalent of forty credits of studying in the same study program at a different college, learning in distinctive study programs at different college; or learning outside college.

Through the freedom of learning-Independent Campus program, there is space provided by the government for higher education providers to develop students' creativity, capacity, personality, and needs to independence. With this program, there are many opportunities for students to seek and find knowledge and experience through real problems, social interactions, collaboration, self-management, performance demands, targets and achievements, the dynamics of life in the real world [11]

Independent Campus

Curriculum Adjustments

Furthermore, to prepare students to face social changes, culture, the world of work, and rapid technological advances, student competencies must prepare to be more relevant all the time. Link and match not only with the world of industry and the world of work but also with a rapidly changing future. Higher education institutions are required to design and implement innovative learning processes. Thus, students can achieve learning outcomes aspect of attitude, knowledge, and skills optimally and relevant.

The Freedom of Learning-Independent Campus Policy can be an answer to these demands. Independent Campus is an autonomous and flexible form of learning in college to create an innovative, non-restrictive learning culture, and student's needs.

The main programs of Freedom of Learning - Independent Campus are the opening of new study programs, changes to the college accreditation system, state universities to become state universities with legal status, and the right to study three semesters outside the study program. Students give the freedom to take University Credit Unit (SKS) study programs outside, three semesters in the form of 1 semester of opportunity to take courses outside the study program and two semesters to carry out learning activities outside of college. [8]

The presence of regulations that provide relaxation for the implementation of higher education should utilize optimally. One of them is to reconstruct the curriculum that needs development. When the conditions of society have Parallel changed in the world of work and industry (DUDI), then the college must also respond with relevant adjustments. The college curriculum must prioritize the aspects of "why" and "how" and no longer only concentrate on "what". For instance, the Agricultural Study Program is no longer focused on what is superior seed' (definitive-classical) but has had to discuss 'how can this seed be superior' (field and experimental), and so on.

Vocation is an Inevitability

The objective of the Freedom of Learning - Independent Campus policy, with the three-semester right to study outside the study program, is to improve the competence of graduates (soft and hard skills) so that they have good abilities and are ready to fill the needs of the times. From this mission, the experiential learning programs with flexible pathways expected to facilitate students to develop their potential according to their passions and talents [11,12,13]

With a broad demographic bonus for working-age, this is an incentive in itself in the context of labour. But one thing that needs realization, not all working-age groups have sufficient and relevant skills to enter the world and work demands. In this regard, it is imperative to provide skills-based education. In this context, vocational education is one of the essential choices. With more openness and easy access for the community to get the opportunity to be educated in vocational education, the demographic bonus will be a blessing instead of a disaster.

Curriculum Design

Thus, to respond to challenges of the times and aligning with government education policies through the Freedom of Learning

- Independent Campus program, UMM initiated the building of an Independent Campus atmosphere and Freedom of Learning in 2014 and gain momentum when government policy through the Minister of Education and Culture Regulation number 3 of 2020 Article 15 First Paragraph.

As we know, the independent campus learning model provides the possibility to:

1. Student Exchange is the program that aims to give students the ability to build friendships in the heterogeneity of Indonesian culture to increase the spirit of national unity and integrity. The form of student exchange can be study programs on the same campus; Same study programs on different campuses; or between study programs at different campuses.

2. Internships or work practices carried out for 1-2 semesters to provide adequate experience and direct learning in the workplace (experiential learning).

3. Teaching assistance aims to provide opportunities for students interested in education and gain experience in best practices in educational units.

4. Research or research aimed at students who have a passion as scientists.

5. Humanitarian projects, the student projects that are not only involved voluntarily but converted into University Credit Unit (SKS) scores according to the study program curriculum.

6. Entrepreneurial activities as a program to train the entrepreneurial spirit.

7. Independent studies or projects as a complement to the study program curriculum.

8. Building a village or Thematic Real Work Lecture (KKNT) as a medium for a student learning how to live in the community.

UMM has designed a curriculum whose spirit is in line with The Regulation of the Ministry of Education and Culture Republic of Indonesia No. 3 of 2020 above. The curriculum in the UMM environment provides a space that can deliver students to realize their hopes and to accommodate their needs and desires in pursuing college.

The general curriculum design at UMM is patterned into two categories: (1) the main curriculum tailored to the needs of each study program and (2) a supporting curriculum that accommodates students' desires (read: passion). The main curriculum is outlined in the relevant courses carried out in the study program. Meanwhile, the desire of students facilitated in elective courses that oriented towards student passions and have a link and match with DUDI (Business and Industry) - student passion-based learning.

UMM is currently increasingly collaborating with various institutions engaged in the business and industrial sectors as well as stakeholders in the world of education. Together with the business world and the industrial world (DUDI), UMM is committed to making concrete efforts to produce skill-oriented and expert graduates. Students who are passionate about skills will be given a curriculum with a more dominant entrepreneurial content. Meanwhile, those who have expertise tend to be directed to a curriculum that can facilitate research and experimentation aspects. In this context, DUDI becomes a laboratory to hone entrepreneurial skills, conceptual and analytical acumen [14,15].

For instance, the cooperation between UMM and PT. Charoen Pokphand Indonesia will allow students to deepen their knowledge of poultry and hone their poultry business skills. From this point, the campus will legalize it through a curriculum form known as the Poultry School. The same thing when UMM collaborates with the Coffee Company, it will accommodate through the relevant curriculum in the form of Coffee Schools. Furthermore, it will appear Branding School, Marketer School, Social Worker School, Chef School, etc. However, UMM besides having a core curriculum by the Faculties and Study Programs will also provide a complementary curriculum tailored to the desires or passions of students.

Thus, the curriculum at UMM may generate various specializations which will facilitate the availability of a set of elective subject groups that are tailored to the interests or passions of students. In this case, there is a part of the learning process, both lectures and Research and Community Service (PPM) through a bottom-up approach adjusted to the potential that students already have.

CONCLUSION

UMM at a certain level has carried out independent learning activities. When the government issued a policy of Freedom of Learning - Independent Campus, in momentum gave acceleration to UMM's efforts to realize the atmosphere and practice of independent learning on campus.

UMM is very optimistic that implement the Freedom of Learning - Independent Campus in real terms. The steps in that direction started a decade ago. Nowadays, with more active and strategic efforts, the Independent Campus and Freedom of Learning are not only ideas and utopia but also the reality for UMM.

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The Perspective of Implementation for Partnership Agreements in Improving The Competitiveness of Indonesian Cooperatives Based on Justice

Hamdan Azhar Siregar[1]

Introduction

The perspective of implementing cooperative partnerships is based on legal aspects that can provide welfare under Pancasila and the 1945 Constitution. Justice and prosperity can be achieved in partnership if the law can run according to its function. In this case, the function of law must be regulated in the form of a partnership agreement that can provide a perspective of increasing the competitiveness of cooperatives based on justice and welfare because this partnership method can eliminate inequality between cooperatives and other business actors.

Partnership as regulated in Government Regulation No. 17 of 2013, reflects the implementation of the mandate of Pancasila and the 1945 Constitution. Because the partnership demonstrates the principle of kinship, eliminates inequality, helps the weak, and eliminates jealousy between the strong and the weak. Following the partnership concept, where the parties trust each other, need each other, mutually reinforce and benefit each other. It raises a study of how the partnership perspective is carried out in increasing the competitiveness of cooperatives. Besides, it is also the issue of responsibility in implementing partnerships from the standpoint of cooperative development. Theoretically, the partnership perspective is an ideal concept in facing economic competition in this globalization era. This means that the strong can help the weak, and the weak can develop themselves. Article 33 Paragraph (1) of the 1945 Constitution states that the economy is structured as a joint venture based on the principle of kinship. [1]

One of the functions of the state is to provide welfare for society as a whole. The country's functions can be accomplished by development

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in all fields. Development in all fields can also realize the ideals of a just Indonesian nation. One of the indicators for welfare as outlined in Pancasila and the 1945 Constitution is cooperatives. As a form of business and the pillars of the Indonesian economy, cooperatives must provide welfare and economic justice for cooperative members and society in general.

In line with that, if you look at the population and the number of Indonesian cooperatives, the perspective of implementing the partnership is quite supportive. This reason can also be seen from the role of laws and regulations that support cooperatives' existence. The partnership concept developed based on applicable regulations provides business entities opportunities to work together in developing the Indonesian economy. Economic development cannot run independently but must be carried out in collaboration following Pancasila and the 1945 Constitution.

Economic justice based on the 1945 Constitution Article 33 has provided a clear line that the economy must be structured based on kinship. The kinship principle can be implemented if all economic actors' components are aware of their economic development responsibility, not for groups or individuals' interests. For this to work, the government must protect all economic actors, including cooperatives, state-owned enterprises, and the private sector.

According to Article 3 of Law no. 25 of 1992, the purpose of cooperative development gives a message where the meaning of justice is under the objectives of economic development. As a legal entity, cooperatives provide justice to their members in particular and provide justice as a whole for society. As a cooperative goal, the concept of justice offers an overview of the meaning of justice regulated in Pancasila and UUD 45. This objective of justice is expected by all Indonesian people, as stated in the preamble of the UUD45 and Pancasila.

Findings and Discussion

1. Legal Perspective of Partnership in Increasing the Competitiveness of Cooperatives

Judging from the above understanding, the partnership perspective is ideal for facing economic competition in this global era. This means that the strong can help the weak, and the weak can develop

themselves. Article 33 Paragraph (1) of the 1945 Constitution states that the economy is structured as a joint effort based on the principle of kinship. The words compiled in that Article signal the need for the government's active role in translating and implementing the Article's values into prevailing normative values in the national economic order. These normative values can be manifested in an economy in the form of a cooperative business entity. One of these principles that can be realized and carry out the mandate of the 1945 Constitution referred to is using partnership.

In this context, the perspective of implementing partnerships is the empowerment of small businesses, cooperatives in national development, namely equal distribution of job and business opportunities, equal distribution of income, growing and increasing business capacity, increasing competitiveness, marketing, quality product results, and increasing exports, equal distribution of business ownership and strengthening the structure of the national economy. Through the national business partnership movement, all development actors together renew their determination to mobilize all potential and strength to accelerate the growth rate of the just Indonesian nation. Through this movement, the Indonesian people are getting ready to face the challenges and opportunities that open up in free trade [2]

In line with that, the National Business Partnership Movement's declaration in 1996 by the President of the Republic of Indonesia Soeharto is a strategic effort. This is to spur further national economic resilience, which is still facing gaps and anticipating increasingly fierce competition. There needs to be a movement through business partnerships between cooperatives and small businesses with large businesses. This movement must become a strategic alliance [3] because that way the Indonesian nation can move and advance in the globalization of the world economy. This strategy is also a collective movement in building a national economy based on a people's economy so that a group of people does not enjoy the breath of development and the results of development, but this method can build togetherness with the aim of economic justice.

So the business partnerships that are developed are in accordance with existing provisions, namely small and medium enterprises, and cooperatives, to foster a stronger and more efficient national business structure to be able to dominate and develop the domestic market and

increase global competitiveness. The impact of a broader partnership perspective is that various problems of inequality and poverty can gradually be overcome. At the same time, the competitiveness of the national business world will also increase. [4] in managing the economy. The partnership provides an opportunity for all business entities in the economy to be able to work together in managing and building the nation's economy.

This strategy is also a collective movement in building a national economy based on a people's economy so that a group of people does not enjoy the breath of development and the results of development. Still, this method can build togetherness with the aim of economic justice. Guided by the alignment of positions or having the same degree as each partner, neither party is exploited and disadvantaged. Instead, it creates mutual trust between the parties so that, in the end, it can increase profits or income through business development.

B. Responsibilities in Implementing Partnerships in the Perspective of Cooperative Development

As the pillar of the Indonesian economy, cooperatives should have a priority place in the Indonesian economic system, especially that in the Republic of Indonesia constitution in Article 33 of the 1945 Constitution, that the economy is compiled based on kinship, a sense of kinship can only be found in cooperatives, build an economy based on cooperatives. Seeing his position as the pillar of the Indonesian economy, he is most responsible for building cooperatives apart from the government but also the Indonesian people.

History has proven that in 1896 a civil service officer Patih R. Aria Wiria Atmaja in Purwokerto [5] founded a bank for civil servants (*Priyayi*). He was motivated by the desire to help employees who were increasingly entangled by loan sharks who made loans with high-interest rates. This incident by many writers or observers tends to be seen as an initial step for the existence of a social economic agency or cooperative body in Indonesia, which at that time the Dutch were still colonizing Indonesia, and the economy was suffering greatly.

This long history shows how the economic conditions suffered so badly, in 1908 by Budi Utomo and the Islamic Trade Union [6] (later becoming the *secir* of Islam) moved consumption cooperatives, then batik cooperatives. This momentum was created by Budi Utomo

and the Islamic union, which gave birth to the first cooperatives in Indonesia since 1908, which coincided with the national revival.

Then since 1927, Indonesian Cooperatives began to grow well and increasingly expand. Apart from household cooperatives (consumption at that time) [7] and batik cooperatives, other types of cooperatives were growing again, such as fishery cooperatives, credit cooperatives, and handicraft cooperatives. So, in 1932, the peak of the growth of cooperatives and the development of old cooperatives.

Over time and economic development that knows no boundaries and between one another, cooperatives' existence slowly but surely gradually cannot stand up among the existing economic actors. This problem cannot be resolved by anyone, not only because of capital, technology, and quality of production, but cooperatives are considered a form of business that is not promising. Therefore, rules are born so that cooperatives can develop together with other companies.

To overcome this, the partnership pattern as implied in Article 33 of the 1945 Constitution is a form of shared responsibility that is borne by all economic actors in the context of realizing a just and prosperous economic life, meaning in developing the economy one must help each other, open access without see if it's a large, medium, or small company. In building the Indonesian economic order, it is under the 1945 Constitution.

In a legal context, economic law or contract law regulates the course of partnerships in planned economic development under the agreements' contents. Thus, the planned economic development made with a partnership agreement is expected to be able to raise and increase the competitiveness of cooperatives, as well as open the widest possible access both in the fields of technology transfer processes, skills in production and processing, marketing, capital, human resources and technology with a partnership pattern, here requires the role of law as a means of justice [8]

Law, as a means of justice, must be able to work optimally. In this case, through an agreement, contract law must provide cooperation and legal certainty for private companies and cooperatives to increase the competitiveness of cooperatives. Increasing competitiveness must encourage cooperatives to face the global era because all economic actors' global era is demanded to be competitive.

Based on these facts, it seems that the government's role is still needed, at least in the early stages, which are motivational (the spirit triggers) or encourages (spurs), not forces. The first and foremost role of government is to create a healthy business climate for business partnerships. One of the instruments is an appropriate and proportional incentive and disincentive system. In this connection, it is necessary to look for forms and systems of incentives as well as effective and non-counterproductive incentives, to partnerships, for example, in the form of fiscal, monetary, or other forms such as licensing, price policies, and buffer programs [9]

So that belief is like an ideology that is always embedded in every behavior of Japanese society. It seems that European countries put their faith in every foundation of human development (human development), so that Europe was the first nation to build modern civilization. Like Islam, through *Rasululloh Sollollohu alahi wasallam*, can spread Islamic teachings in the form of invitations to spread its ideology also with belief.

In business practice in this global era, business partnerships are business strategies for large companies that can no longer rely on strategies for internalizing business activities through acquisitions and mergers in the context of vertical and horizontal integrity. But in the global era of partnerships, it is one way to reduce the economic burden on business actors. However, what needs to be considered in this partnership is a linkage in the business sector, where the business actor wants to partner with a cooperative or SMSE/UMKM, with the position that neither party is injured. This is the concept of partnership that can be developed in the face of economic globalization.

According to observations from various sources in developed countries, the development of such partnerships is encouragement by the needs of the partnering parties themselves or initiated by their own efforts, so that the partnership can take place naturally, without any legal regulation, this is possible considering climate and their economic conditions that have provided sufficient stimulation and need each other for the partnership, meaning that the positions of the parties in the partnership need each other and need each other, so that the concept of a partnership that has been running does not depend on itself, so there are no weaknesses between each other, either small and

medium entrepreneurs and cooperatives, they carry out the partnership with economic principles that are oriented to the market.

In Indonesia, this ideal condition has not yet been fully created. The reality shows the strong tendency of big businesses to dominate the national economy's production and distribution chains, even down to the financing institutions. This can hamper the development of small and medium enterprises and cooperatives. If it is not controlled, it can even be detrimental to the national economic interests goes well.

In practice, the partnership seems to be still not strongly institutionalized in the national business world, even though the rules are in place, the current partnership has not been fully born from the awareness of entrepreneurs to make partnerships with cooperatives, so that the impression that the partnership can be realized if the role of the government (Ministry of Cooperatives) intervening, this is necessary to foster the trust of fellow business actors, so that the economy can go far in the future. Furthermore, the government can play a role in providing guidelines and signs regarding partnerships through laws and regulations, for example how the partnership can be mutually beneficial, what only the criteria that guarantee fair risk bearing and benefit sharing, as well as how to resolve disputes that occur between partner parties.

The government also plays an important role in providing information on partnership opportunities and technical assistance to small businesses and cooperatives in partnership planning and business negotiations. The government can support the partnership by strengthening the infrastructure and strengthening the institutional support for the partnership, among others, by developing effective financial systems and institutions for small businesses and cooperatives. This is important considering that access to funds, particularly bank credit with technical requirements, is still an obstacle for small businesses and cooperatives in developing their business.

The banking world must provide support to small businesses, especially cooperatives. BUKOPIN Bank, as a financial institution that focuses on cooperatives, is time that Bukopin will return to its *khittah*, where its function and role remain consistent in serving, especially in the capital for cooperatives. The position experienced by cooperatives is difficult in running their business because of capital, so capital must

receive support from banks by applying affordable interest rates, a prerequisite that is not too heavy without being so unlikely that the cooperative can compete and may even be left behind or left behind by the community, let alone compete with other forms of business.

Conclusion

1. Partnership Perspective in Increasing Cooperative Competitiveness

The perspective of implementing partnerships is the empowerment of small businesses, cooperatives in national development, namely equal distribution of job and business opportunities, equal distribution of income, growing and increasing business capacity, increasing competitiveness, marketing, quality product results and increasing exports, equal distribution of business ownership and strengthening the national economic structure. Through the national business partnership movement, all development actors together renew their determination to mobilize all potential and strength to accelerate the just Indonesian nation's growth rate.
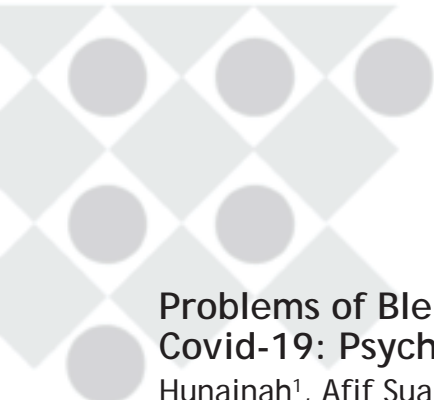
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Problems of Blended Learning in The Pandemic Covid-19: Psychological Overview

Hunainah[1], Afif Suaidi[2]

Introduction

Corona Virus Disease-19 or Covid-19 is an infectious disease pandemic first spread in Wuhan, China at the end of 2019. The corona virus pandemic with the SARS-CoV-2 genetic type then spread to all countries in the world, and had an impact on various sectors such as economy, social, culture, education, poverty, unemployment, and others. The education sector is one of the important elements affected by the Covid-19 pandemic. Changes in the learning system service are conducted to prevent students from being exposed to the Corona virus. These changes are regulated by the Ministry of Education and Culture (*Kementerian Pendidikan dan Kebudayaan*) or *Kemendikbud* so that they can be integrated and implemented nationally by all levels of education including elementary and secondary schools, up to the tertiary school level.

In terms of education, Ministry of Education and Culture or *Kemendikbud* issued a regulatory policy containing about the learning process during the Covid-19 pandemic. Among these policies including the online learning process, where learning is carried out using internet or technology-based media. The Ministry of Education and Culture of the Republic of Indonesia based this regulation on the reference to health protocols to avoid crowds to prevent the increasingly massive spread of the Corona virus. The problems then emerged along with the implementation of this online learning. Among the inhibiting factors are limited access, such as the availability of a network of cellular operators that is evenly distributed throughout Indonesia, the availability of Android devices or smartphones for all students, the

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availability of quota or internet data packages, the readiness of the government budget to organize online learning through infrastructure, and others.

On the other hand, the online learning policy also has a positive impact on the experience and comfort felt by teachers and students alike. The advantage of online learning is that it is not constrained by certain geographic areas, as long as an area can be accessed via the internet network that is where online learning can continue. Students who live far away from the school enjoy the online learning; the distance where students live far from school can be cut by the efficiency of online learning. The main function of online learning is to facilitate learning facilities for teachers and students, therefore this function must remember the ultimate goal of learning, namely the level of understanding and changes in students' positive attitudes from the material presented by the teacher. The first problem, how can online learning be carried out with the absorption level of student material? How are changes in post-learning cognition, affection, and conation behavior of students conveyed by teachers through online learning?

Based on this phenomenon, it is necessary to conduct a study of face-to-face conventional learning as a comparison to online learning, whether face-to-face learning is more effective in achieving the goal of building students' understanding of the material content provided by the teacher. Conventional learning or classical learning that is carried out face to face certainly has advantages and disadvantages on several sides that are reviewed comprehensively. Conventional learning has the value of benefits for carrying out the learning process in an integral and comprehensive manner, including direct interaction with students (face to face) so that it makes it easier for teachers to provide feedback to all students, besides that learning can be easily carried out in two directions, both for the teacher and for the students, so that the level of student absorption of the material that is provided can be received well.

Conventional learning also has a deficiency value that can be viewed from several sides, including limited geographic distance or area, especially for students who live far away from school, students cannot fully record the material described by the teacher in class, in contrast to online learning, students can easily download material using internet media so that all material can be read in full. Based on

the results of a comprehensive study of the learning phenomenon, a learning method is needed that can join, combine, fuse, and integrate online and conventional learning models together into one learning model that can be implemented as a whole, which is called the blended learning method.

In general, it can be concluded that in blended learning, the learning process takes place using six combination models, namely: face-to-face, electronic media, text, audio, video, and multimedia and web-based. The self-learning portion of learning using the web has the same composition as the face-to-face process. The primary focus of the Blended Learning is the students. The students must be independent at certain times and be responsible for their learning. Blended Learning atmosphere will require students to play a more active role in their learning. Students make designs and look for material with their own efforts and initiatives. Blended Learning does not mean replacing conventional learning models in the classroom, but strengthening this learning model through the development of educational technology [9].

The purpose of this study was to conduct a psychological review of the problems of blended learning, which was carried out during the Covid-19 pandemic. Comprehensively reviewing the advantages and disadvantages of the blended learning method, seeing the opportunities and challenges faced by both teachers and students in implementing blended learning in the field, and finding appropriate alternative solutions to these problems based on psychological reviews, especially in terms of the psychology of learning.

Discussion

Learning as a process of "coming to know" seeks that everyone involved in learning needs to mean, interpret, and communicate based on the information or knowledge they have (who are in their community). Questions can be intended as a form of interpretation communication, namely interpretation which is communicated in the form of questions [3].

Blended learning requires feedback as a reference for teachers to assess students' understanding of the material provided; therefore the method of "questions" can be used as a measuring tool so that students can provide feedback on material content so that learning is two-way in nature. The feedback process occurs when the teacher

actively communicates and asks questions to students. Obstacles that occur during the learning process such as students who are embarrassed to ask the teacher, or students are afraid that if they ask the wrong question the teacher will scold and give low score, things like this should be realized and overcome by the teacher from the start, through constructive communication, the teacher provide motivation so that learning is two-way in nature so that students will not hesitate to provide feedback to the teacher.

As the most important learning tool in electronic learning that connects to the internet (online), the development of blended learning, and the use of web technology is required for face-to-face learning, file storage, discussion, monitoring and so on. With the-based learning model, it is blended learning expected that the portion of the independent learning period will be more than face-to-face, both electronic learning that is not connected to the internet (offline) and electronic learning that is connected to the internet (online).

In blended learning, students do not only access teaching materials, but also carry out several activities: 1) Interacting, either through electronic mail (e-mail), chat, or discussion forums. Students can ask questions and opinions about a matter either with the teacher or with their friends. 2) Doing assignments. Students will get assignments either individually or in groups. 3) Answering practice questions. Each topic will be provided with some practice questions that students must answer. 4) Communicating with experts in other countries via the internet connection [9].

Based on the problems and challenges of blended learning in the field, it is necessary to study or review psychologically to find solutions to blended learning problems, especially during the Covid-19 pandemic, which is useful for teachers and students so that blended learning can be carried out optimally and efficiently.

The first psychological review of the factors that influence blended learning is the intelligence ability of the students. Intelligence is a skill that consists of three types, namely; (1) The ability to face and adapt to new situations appropriately and effectively, (2) Knowing or using abstract concepts effectively and (3) Knowing relationships and learning them quickly. Intelligence is also the psycho-physical ability to react to stimuli or adapt to the environment in an appropriate way [7].

Intelligence has a great influence on progress and learning outcomes. In the same conditions and situations, students who have a higher level of intelligence will be more successful and thrive than students who have a low level of intelligence. However, students who have high intelligence are not necessarily successful in learning, if these students do not learn well. Conversely, students who have a moderate level of intelligence can do well in learning, if these students learn well. This is because learning is a complex process with factors that influence it, while intelligence is another factor [8].

The second psychological review of the factors that influence blended learning is the ability or competence of the teachers themselves. The teachers must formulate and consider 7 steps of educational psychology that will be implemented in the learning process. These steps include; (1) Formulating learning objectives appropriately. (2) Choosing appropriate learning strategies or methods. (3) Providing guidance or even providing counseling. (4) Facilitating and motivating students' learning. (5) Creating a conducive learning climate. (6) Interacting appropriately with students. (7) Assessing learning outcomes fairly [4].

The third psychological review is that communication between teachers and students is hampered, both verbal and non-verbal communication. Basically, in online-based learning, students have the opportunity to personally connect and interact with facilitators and tutors / teachers so that they can build trust for quality online learning. If technology limits communication opportunities, it can hurt opportunities to build trust. Communication limitations impact on the ability (or lack thereof) to build collaboration through teamwork. A disconnected learning environment, particularly virtual discussion boards, can serve as a point of connection for students located or scattered in different parts of the world, but it can also make problems unique. Plus the invisibility of facial expressions and body language makes it difficult for recipients to interpret messages accurately, especially if a student is involved in a discussion or teamwork situation. A breakdown in trust can also occur when students are placed on passive teams making regular communication failures. When this happens, students in the group cannot know the commitment and seriousness of other members to the group work [5].

The fourth psychological review is the low level of student involvement (participation) and the weak supervision of the tutor /

teacher. The transition stage of blended learning from conventional learning to online learning produces a new complexity, namely the low level of student participation (involvement) in online learning. In the conventional learning period, the level of student participation was very high due to the supervisory factor of the teacher who was very strict in monitoring student attendance directly. The teacher directly monitors student attendance and assesses their participation and activeness in the learning process in class, in online learning, the teacher find it difficult to monitor the level of students' participation (involvement) actively which makes the percentage of student attendance in online learning decrease significantly, this is due to several reasons, including the low level of teacher's digital literacy.

Online learning has special challenges, the location of separate students and teachers when implementing it causes teachers unable to supervise students' activities directly during the learning process [2]. Students' involvement in question can be seen from the results of student involvement in taking full online learning from the beginning of learning to the end of learning. The results showed that only 50% of students were fully active, 33% of students were actively involved. Meanwhile, the other 17%, students are less active and less participating in online learning [1].

The fifth psychological review is to modify the blended learning method using the psychological theory of learning behavior (behavior formation). Pavlovian's theory emphasizes the importance of the conditioning process in the formation of behavior. Basically, a response (behavior) can be generated even though it is not stimulated by natural stimuli or stimuli that naturally cause the behavior. Based on this concept, education can be directed towards modifying behavior based on artificial stimuli. This is sometimes necessary when natural stimuli cannot be present. Under normal circumstances, without being conditioned (unconditioning), a natural response will only appear when there is a natural stimulus as well. However, through the conditioning process, natural responses can arise even without a proper stimulus, or only with a stimulus created (artificial stimulus). In other words, the combination of natural stimuli with artificial stimuli occurs continuously and will cause the expected natural response [6].

There are at least two types of human behavior according to Skinner's opinion, namely: (1) Respondent behavior is behavior in

which the origin of the stimulus is known for example blinking in the sun, drooling from hunger and so on. (2) Operant behavior is behavior of unknown origin, behavior that is just done. For example standing, blowing whistles, moving hands, singing, laughing, talking etc.

Skinner realized that operant behavior arises because of a certain stimulus, but that stimulus is unknown and not important to know. The ways of habituating behavior through the habituation or conditioning process are as follows: (1) Type S conditioner or respondent conditioner which is identical to the classic Pavlov conditioner. This type emphasizes the importance of a stimulus to generate the desired response. (2) Conditioning type R (operant conditioning); synonymous with Thorndike instrumental conditioning, which is habituation that emphasizes response more. Thorndike's theory in particular can be applied in schools to design concrete learning. The operation can be in the form of several points below. (1) Schools need to have clearly defined educational goals. (2) Educational goals must be in accordance with the conditions and abilities of each child. (3) Study material is divided into small units. (4) The learning process is carried out in stages according to the material that has been broken down into small units. (5) Educational pressure is on correct or appropriate responses to stimuli, not on focusing on children's mistakes. (6) Giving rewards for good behavior (7) Wrong response must be corrected immediately so that it is not repeated. (8) Regular tests need to be provided as feedback for teachers and students for the following learning improvements. (9) Creating learning situations that are similar to real life as much as possible so that there is a transfer of learning from class to real life. (10) Good education is to provide lessons that can be used / transferred in everyday life [6].

Conclusion

Blended learning during the Covid-19 pandemic was carried out with the aim of breaking the chain of spreading the Covid-19 virus. The transition of the learning process from the classical stage to online learning poses a number of problems as well as challenges for teachers and students. Therefore, a psychological study of blended learning is needed to overcome these problems so that blended learning during the Covid-19 pandemic can be carried out optimally and efficiently.

The first psychological review of the factors that influence blended learning is the intelligence ability of students. Intelligence is a skill that consists of three types, namely; (1) The ability to face and adapt to new situations appropriately and effectively, (2) Knowing or using abstract concepts effectively and (3) Knowing relationships and learning them quickly.

The second psychological review of the factors that influence blended learning is the ability or competence of the teachers themselves. The teacher must formulate and consider 7 steps of educational psychology that will be implemented in the learning process. These steps include: (1) Formulating learning objectives appropriately; (2) Choosing an appropriate learning strategy or method; (3) Providing guidance or even providing counseling; (4) Facilitating and motivating the students' learning; (5) Creating a conducive learning climate; (6) Interacting appropriately with students; (7) Assessing learning outcomes fairly.

The third psychological review is that communication between teachers and students is hampered in both verbal and non-verbal communication. Communication limitations impact on the ability (or lack thereof) to build collaboration through teamwork. The learning environment is disconnected. Plus the invisible facial expressions and body language make it difficult for recipients to interpret messages accurately, especially if a student is involved in a discussion or teamwork situation.
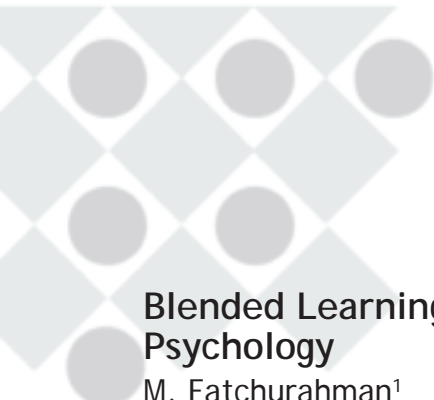
The fourth psychological review is the low level of student involvement (participation) and the weak supervision of the tutor/teacher. In the conventional learning period, the level of student participation was very high due to the supervisory factor of the teacher who was very strict in monitoring student attendance directly. In online learning, the teacher find it difficult to monitor the level of students' participation (involvement) actively which makes the percentage of student attendance in online learning decrease significantly, this is due to several factors, including the low level of teacher knowledge of digital literacy.

The fifth psychological review is to modify the blended learning method using the psychological theory of learning behavior (behavior formation). (1) Respondent behavior is behavior in which the origin

of the stimulus is known. (2) Operant behavior, namely behavior of unknown origin, behavior that is just done. (3) Conditioning type S or respondent conditioning which is identical to the classic Pavlov conditioner, this type emphasizes the importance of the stimulus to elicit the desired response. (4) Conditioning type R (operant conditioning); synonymous with Thorndike instrumental conditioning, which is habituation that emphasizes response more.

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Blended Learning Problems in Terms Of Psychology

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Introduction

The use of technology in the world of education, especially in the learning system, has changed the learning system from conventional or traditional patterns to modern patterns using Information and Communication Technology (ICT) as a media. One of them is the computer media with the internet which eventually led to e-learning. In this ICT-based learning pattern, learners can choose learning materials based on their own interests, so that learning becomes fun, not boring, full of motivation, enthusiasm, attracts attention and so on [1].

Education in active learning activities must be taken to educate students to think independently. According to [2] "independent learning is an active learning activity that is driven by an intention or motive to master a competency in order to overcome a problem, built with the knowledge or competence possessed, both in determining the time of study, place of study, learning rhythm, learning tempo, how to learn, as well as learning evaluations carried out by the learners themselves ". However, if the teacher only relies on the lecture method, the learning process in increasing learning independence is considered less effective.

Whereas according to [3] that independent learning actually has added value compared to learning activities at school, this does not mean that independent learning can stand alone. Independent learning can be an alternative or additional way to support learning at school. Independent study trains students not to rely too much on the explanations of the teacher at school.

Every learning activity has a goal to be achieved. Learning objectives are achieved by the effort made by educators through various approaches, strategies, methods, or learning models. Theoretically, these various methods have been developed based on the theoretical

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background of learning and different environmental conditions. The achievement of learning objectives predominantly depends on the educator as the creator of learning. Educators must be critical in analyzing the learning needs of their students in the classroom. Educators must also act creatively in creating learning, so that student needs are met and learning objectives are achieved. The objectives of efficient and effective learning are indicated by the achievement or fulfillment of competency achievement indicators [4].

One form of efforts to improve the quality of learning is the use of ICT (for example the internet) to support conventional learning systems. The use of ICT is carried out, for example, such as in data collection, where computers process and mobilize data and can support teachers in their daily learning activities, improve the effectiveness and efficiency of the learning process, and assist in achieving learning goals [1].

Blended learning is a formal education program that allows students to learn through content and instructions that are delivered online (online) with independent control over the time, place, sequence and speed of learning [5]. According to [6] Blended learning is learning that combines or combines various web-based technologies to achieve educational goals. [9] define blended learning as a mixture of e-learning technology and multimedia, such as video streaming, virtual classes, online text animation combined with traditional forms of classroom training. Meanwhile [7] mentions blended learning in a simpler way as learning that combines online learning with face-to-face (face-to-face learning).

[7] defined blended learning as a combination of two instructional learning and teaching models: traditional learning systems and distributed learning systems that emphasize the role of computer technology. Meanwhile, according to [8] Blended learning is a learning approach that integrates traditional face-to-face learning and distance learning using online learning resources (especially web-based) and a variety of communication options that can be used by educators and students. Meanwhile, face-to-face learning brings together educators with students in one room to learn where there is a synchronous (direct) communication model, and there is active interaction between fellow students, students with educators, and with other students.

[9] outlined important points regarding the effectiveness of mixed learning through: First, live events where direct or face-to-face learning is continuous in the same or different time and place through face-to-face virtual learning. For some people, this direct learning pattern is still the main pattern. This pattern must be combined with the theory of behaviorism, cognitive, constructivism so that meaningful learning occurs. The second is self-paced learning, namely combining independent learning with certain learning by allowing learning participants to be able to access learning materials at any time based on digital learning such as videos, animations, simulations, pictures and so on. The third collaboration is combining both educators and students who are both cross-school / campus-enabled, such as chatrooms, communication forums, email, website / weblogs, and mobile phones so that the construction of understanding, knowledge and skills occurs through social processes or social interactions in discussing material and other problem solving.

The three effective components of mixed learning are a measure of their success. It is necessary to pay attention to the attitudes of students to adapt to the processes that occur therein. One important component is the need for collaboration in support of the concepts of behaviorism, cognitive and constructivism in it, in this case the important role of learning psychology is very important to serve as an approach. Taxonomy of learning tasks that the purpose of learning is to know the different types of learning to be done. It can be said that the learning assignment can be examined from the type of learning. It is believed that studying certain behaviors is a prerequisite for studying other behaviors. For example, the behavior of a baby before walking is preceded by sitting and standing behavior. Students may not be able to master multiplication before mastering the concept of addition.

The types of learning as formulated by Gagne [10] are:

1) Signal Learning or conditional learning occurs in achieving general habits, diffusion, emotion response to signals. Take Pavlov's experimental dog to light and a bell with its saliva. In humans, an example of the response is the emergence of a sense of pleasure to the sounds of the music he likes.

2) Stimulus Response Learning or learning stimulus response occurs in learning to make muscle movements relatively fixed in response to

specific stimuli or stimuli combinations. When the child learns to say "mama" to his mother, he or she makes precise movements on the lips and tip of his tongue.

3) Chaining or a series occurs in learning to connect a series of stimulus response relationships that are learned earlier. For example, it can be observed when a child is learning, namely (a) starting to write his name with a capital letter, (b) connecting the writing with his first name together, (c) making a dot on the letter "i", (d) making a cross line on the letter "t", that he learned from the humble and was finally able to write "Timothy" correctly.

4) Verbal Association Learning or verbal association learning is a sub-variation of chaining that occurs when the stimulus and response in a series occur on syllables. The Mass learns to form a meaning, such as words: man-woman, red and white, the dry and rainy season.

5) Discrimination Learning, Learning discrimination (discrimination learning), occurs in the acquisition of the ability to make different responses to a stimulus. Learning about discrimination occurs a lot in Kindergarten and SD / MI grade I. For example, children are asked to distinguish two pictures, one with a horizontal line and the other with a vertical line. Discrimination skills are considered as previously learned skills.

6) Concept Learning occurs in the acquisition of abilities that allow a person to find a stimulus or object that stimulates a group of objects that have special characteristics. Two conceptual forms are distinguished, namely concrete and abstract concepts. The concrete concept of its characteristics can be observed such as shape, color (round, rectangular, smooth, curved, and so on). Meanwhile, abstract concept is a defining concept which means a concept that is understood by explaining its characteristics, for example polite, beautiful, poor, and so on.

7) Rule Learning, or learning rules and laws, a rule or law is said to have been learned if there is an individual's performance that contains regularity in a certain situation. For example, a child learns about money needed to buy goods, so he gets an understanding of the concept of money as a medium of exchange to get the goods needed.

8) Problem Solving Learning or problem solving occurs when individuals are able to combine several rules to solve new problems.

For example, to calculate the area of a parallelogram, the child needs to combine the rules for calculating the area of a triangle and the area of a rectangle that has been known beforehand so that the area of the parallelogram is known.

The psychology of learning serves to provide predictions regarding the interrelated aspects of learning. The occurrence of changes in one aspect will affect other aspects. For example, the level of individual intelligence and motivation can be used to predict learning achievement to be achieved. Furthermore, the physical condition and psychological condition of the child can predict the possible difficulties that will be encountered in the learning process. Thus, teachers can make efforts to provide assistance.

Recommended learning psychology function

As an applied science, learning psychology not only provides conceptual insights related to learning-learning phenomena, but provides a number of recommendations for instructional practices. Even though the recommendations are in the form of general signs, they do not accurately have consequences for the problems faced by teachers. Recommendations are not directly aimed at cases of learning problems, but suggestions and recommendations proposed are expected to be used as guidelines for teachers to make instructional decisions [10].

Bloom's Taxonomy [10] states that the domain of attitudes in learning includes the cognitive, affective and psychomotor domains. The cognitive domain includes knowledge, understanding, analysis, interpretation, and evaluation. The affective domain includes acceptance, response, assessment, organization, and value characteristics. The psychomotor domain includes gestures to coordinate movement, verbal communication and speech behavior. All of these domains are important in the evaluation of blended learning because the benchmarks for both classical/face-to-face or online / online learning, all of these domains, ideally can be indicators of the effectiveness of this blended learning.

This aims to create the expected learning behavior, the learning behavior that occurs in students can be recognized both in the process and in the results. The learning process can occur when an individual feels a need within him that cannot be fulfilled in reflex or habitual

ways. Individuals are challenged to change existing behavior in order to achieve goals.

Discussion

Improving the quality of learning is based on the formation of learning methods that are determined in the learning process, this blended learning offers several combinations of methods that are carried out by adjusting the current state of technological progress. Research [11] found a significant increase in motivation with the application of blended learning to 212 students. Meanwhile, research [12] found that the effectiveness of mixed or combination learning also needs to be considered regarding the availability of facilities and infrastructure or supporting devices for the blended learning. The flexibility of this method can reduce the cost of learning which tends to be high because it is mediated in a virtual face-to-face which is a future learning system.

Blended learning in the learning process will help students accommodate their respective learning styles. Those who have visual and audio learning styles will be given the opportunity to gain knowledge not only when learning in class face-to-face with the teacher, but they can also gain knowledge while outside the classroom online either via the internet or communicating with the teacher. Then for students who have a kinesthetic learning style will also be able to gain knowledge when learning in class face-to-face (face-to-face). Therefore, implementing blended learning for strategies for organizing teaching, teaching delivery, and teaching quality will help teachers increase the attractiveness of learning in this age 21 with students who are ready to compete to live in the digital era. [13]

Blended learning developed around 2000 and is now widely used in various countries, from various circles around the world as a learning strategy that combines classical face-to-face learning with online learning or through an internet connection [14]. In this case it will feel easy if all the facilities and infrastructure of a school or college can play an important role in providing full support for the occurrence of learning, but it will be the opposite if there is a deviation due to technological limitations and there is no support for adequate facilities and infrastructure, in addition to the diverse economy in students also

make this blended learning system unable to be applied without certain considerations.

Therefore, there are several shortcomings (which are problematic) that must be met in blended learning, namely educators must have special skills in operating facilities and infrastructure related to technology, in other words, they must update technology. In addition, developers must develop e-learning technology and manage it well so that it can be implemented effectively and efficiently by educators to students. Educators must also prepare digital reference materials that are regularly updated on the agreed platform. Inequality of technology is also an important factor in its implementation.

Psychologically, in addition to the above problems, it also occurs in the education unit which is the subject, namely students actually experience negative feelings due to the distance learning process, they must limit themselves in social interaction and must be able to adapt themselves academically. This is due to the absence of clear measurement tools such as curricula so that it will have an impact on decreasing academic achievement. On the one hand, the advantages of blended learning can save the cost of education, learning can be effective and efficient if it is supported by facilities and infrastructure [13]

Whereas in terms of learning psychology, this blended learning model serves to explain, predict, control phenomena (in teaching and learning activities), and in its sense as an applied science. Thus, the psychology of learning can help teachers to understand how individuals learn. By knowing individuals learn, we can choose more effective ways to help facilitate, accelerate, and expand the individual learning process. Therefore, the classical important role is still prioritized as an educator control measure for students in the learning process.

[15] concluded that changes in the context of learning can be functional or structural, material and behavioral, and the whole person. This opinion is in line with the opinion [15] which states that learning can be interpreted as a relatively permanent change in behavior and which is the result of the learning process not caused by the maturity process. Thorndike in [16] argues that learning is the process of people acquiring various skills, skills, and attitudes. Learning is an action and complex behavior of students / students as an action, so learning is only experienced by the students themselves.

This learning behavior indicator is the benchmark in the evaluation of learning. When this is collaborated in the learning process with mixed methods or blended learning, it is expected that it can thoroughly control the learning attitude in it for both educators and students. The hope of creating an effective and efficient learning process can be done in various ways, methods and learning models, one of which is blended learning which is reviewed from the perspective of learning psychology, so that the expected learning behavior is in accordance with what the educator and the students agree on. In addition to the efforts to fulfill the learning needs as described above when undergoing a blended learning period, it is necessary:

1. Maximum support from parents, teachers, and fellow students to avoid stress.

2. Students need to be equipped with the ability to recognize their own emotions in order to ensure their psychological well-being during blended learning.

3. Presented of guidance and counseling service programs, in the form of: group guidance, group counseling, individual counseling, and a peer counseling.to help stressful teachers and students.

Conclusion

Alternative appropriate learning methods do not necessarily conclude which one is the most effective. All methods must be tested and adapted to the conditions where and how the right mix between educators and students. Whatever form of strategy, method or learning model that is given and utilized properly will be appropriate in education to improve the quality of learning, facilitate skill formation and encourage the learning activities. Blended learning is one of the alternatives if in the future it is effective, in line with its target at both educators and students, with various consequences when it is applied so that it becomes an alternative to today's learning problems.

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Socioeconomic Disparities of Climate-Change Impact On Physical And Mental Health In Indonesia

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Introduction

Indonesia is considered a high risk country for climate change, and is already facing the consequences of destabilizing weather conditions. Located on the equator line, the country is particularly susceptible to natural disasters. Climate variations have led to increased numbers of natural disasters such as flash floods, hurricanes, earthquakes. For example, the capital city of Jakarta has progressively experienced extreme flooding in previous years [1]. This can be attributed to extreme rainfall, rising sea surface level and land sustenance [2], [3], resulting in Trillions worth of damage (IDR) to people's homes, businesses, and property. Furthermore, one of the commonly believed causes of climate change, high carbon emissions, itself impacts people in daily life. Jakarta is one of the most polluted cities on the planet, with air pollution associated with high rates of physical illnesses. These are just two examples of the multi-faceted impacts of climate change and its causes, but Indonesia faces several threats across the nation.

Thus, it's imperative that these threats are fully understood at all levels of society if effective mitigation and adaptation strategies are to be generated. Of particular concern is the potential impact to people's physical and mental wellbeing. Although recently declared a developed country by the world health organization, Indonesia still has high rates of poverty and large sections of society with relatively low income. These sections experience higher rates of physical and mental illness, whether that be in urban or rural areas. This follows well known trends that lower Socioeconomic Status (SES) is associated with a range of socioeconomic inequalities for physical and mental-health [4]: Medical

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diseases (i.e. coronary heart disease and diabetes) develop at a higher rate for lower SES as well as mental disorders (i.e. depression and anxiety), who also have lower access to specialized care and disposed to unfavourable outcomes [5], [6].

There are numerous indicators that this SES outcome disparity for physical and mental health is going to increase with climate change. Projected consequences of climate change for Indonesia include resource scarcity; displacement of individuals, families and communities (due to land becoming too dangerous or inhabitable); mass migration; loss or damage to businesses and jobs; etc. Overcoming these difficulties requires flexibility for continually adapting business and/or lifestyle infrastructure to accommodate changing conditions. Those with greater resources, both physically and economically to make these changes, and retain access to health care, food, and essential needs; are better equipped to adapt. For example, large businesses may have more resources for investing in revisions to company knowledge, equipment, and infrastructure. Furthermore, they tend to be less localized, with different aspects of the company at different locations. Thus, it may be easier for them to relocate to safer land if needed (also offering their employees the chance to relocate). On the other hand, smaller businesses and low income jobs might not possess such resources, and as their businesses are more localized, could find it difficult to relocate or even to sell their businesses. This could result in people abandoning their businesses and higher rates of unemployment when people migrate to safer areas.

Many families from lower SES backgrounds in Indonesia already struggle to pay for, or gain access to, medical care for both physical and mental illnesses. Should lower SES communities be impacted disproportionately, at least early on, this problem needs to be addressed with effective policy. If people's income are affected by climate change, and resources for basic needs including medical care become scarcer; not only are health issues going to increase, but people's access to it will diminish. Those with greater resources to pay for medical care and the capacity to transit to health facilities will fare better than those who cannot. Therefore, this article aims to examine physical and mental health for lower SES individuals in relation to climate change, and what kind of policies can be adopted to support them.

Socioeconomic Status and Climate Change

Traditionally, measuring SES has been difficult. Studies often used several different markers of SES, resulting in gradients of varying slopes, and different words were used for SES interchangeably [7]. More recently, researchers have developed standardized measurements for SES to reduce the complexity of interpreting and comparing across studies, especially those across countries. SES is now defined by a combination of measures, typically by social position for education, income, and occupation. However, some researchers justify the omission of occupation given that it does not apply to people who are currently unemployed (jobless, students, retired etc.), several occupational measures are outdated, and the perception of occupation may vary by different samples (geographical, age etc.) which can make comparisons difficult [7].

One task moving forward is to develop standardized ways of measuring the impact of climate change on mental and physical health for different SES under dynamic circumstances. Given that SES is relatively stable in today's societies, if people are, at an increasing rate, displaced from their homes, don't have equal access to education and have decreasing income: would SES be an adequate marker in the long-term (i.e. for future studies)? A fruitful avenue may be to record current SES markers longitudinally to examine how current SES levels translate to future susceptibility to climate change for different communities. This could help to identify sections of society who are particularly at risk, and inform government mitigation policies to support them.

Research on natural disasters, anthropogenic climate change and related natural climate variation supports this tasks importance. For example, later risk of noncommunicable diseases is related to adverse social and material circumstances during early life [8]. Similarly, community resilience against natural disasters hinges on conditions such as physical circumstances related with infrastructure and construction, and socioeconomic inequalities. Xu et al. [9] used an interpretive structural model (ISM) with incorporated analytic hierarchy process (AHP) to identify factors associated with community resilience: community identity, income level, employment, education level, risk awareness, health level, community autonomy and leadership. Social justice is thus essential for improving a communities ability to rebound

after a disaster and improve the health of that society. Developing the resilience of communities to natural disasters/climate change requires a systematic understanding of what drives adverse outcomes. As socioeconomic status is one variable associated with poorer outcomes, it's important to understand how and why this may relate to mental and physical health as climate change worsens.

SES, Climate Change, and Physical and Mental Health

While sometimes treated as separate domains medically, there is significant overlap in the comorbid prevalence of physical and mental disorders. This is especially true of comprehensive threats to a person's livelihood. That is, when an event presents risks of social, physical, and economic harm, physical and mental health tend to be increasingly correlated. This understanding is embedded in professions like, say, clinical health psychology, and need to be addressed as interacting domains. It's clear that people with poor mental-health have increased morbidity and mortality with chronic diseases than the general population [10]; and studies have highlighted how sub-populations living with chronic health conditions in Indonesia have higher rates of depressive symptoms at around 25-40% [11].

There are numerous mechanisms which explain this link between psychological and biological pathology. Links between depression and physical disorders, for example, are influenced by stressful life events. The perception of these events and the biological manifestation of stress influences hypothalamic-pituitary-adrenal axis activity and hormonal expression which are important in the developmental pathogenesis of metabolic and cardiovascular disorders [12]. On the other hand, stress, particularly chronic neurological exposure to hormones such as glucocorticoids, and, for instance, reduced brain-derived neurotropic releasing factor (BDNF), impacts both the onset and maintenance of mental disorders overtime [13]

If predicted consequences of climate change materialise, there will likely be health and psychological ramifications which are intertwined and mutually reciprocal. It may be more difficult to maintain a healthy diet and lifestyle and gain access to health services. Likewise, the threat of natural disasters, loss of land, businesses and jobs, harm to oneself or family, disrupted social communities: these could heighten psychological distress and increase mental illness and its relationship

with physical health (and vice versa). Researchers argue that groups who are impacted most by the physical and mental consequences of climate change are marginalized groups, such as low-SES, indigenous peoples, seniors, women, racialized people, people with pre-existing health conditions [14]. In Indonesia, both self-reported poorer mental-health and lower physical health outcomes are associated with low SES (which remained stable across age, race/ethnicity and gender groups) [15]. Thus, health intervention programmes need to consider the relationship of mental and physical illness contextualised in different demographic backgrounds.

Mental Health, Physical Health

Although Indonesia's treatment of mental-illness has significantly improved over the past 20 years, the problem remains woefully under-addressed. People with mental-illness still suffer from practices like *Pasung*: people with moderate-severe mental-illnesses are imprisoned in chains, sometimes for years. It is estimated that 18,880 people current live in *Pasung* [16]. This number has increased with the COVID-19 pandemic, and demonstrates how natural disasters increase the reliance on harmful methods of controlling people with mental illness, particularly those with disorders like schizophrenia and psychosis. However, *Pasung* is usually considered an act of desperation by families. Factors associated with *Pasung* reflect the country's lack of infrastructure related to mental-health - issues with the supply of medications; health plans not covering specialised medications; shortage of specialists (i.e. psychiatrists, clinical psychologists); large distances to travel for treatment; inadequate number and quality of mental hospitals [e.g. 16] – these issues need to be addressed to support people with mental-illness in the future.

As previously mentioned, these issues coincide with the prevalence of mental illness in that people from low socioeconomic backgrounds are disproportionately affected. Numerous studies from Indonesia demonstrate that low SES is associated with a higher prevalence for a range of psychological and psychiatric disorders like depression, anxiety, schizophrenia, psychosis etc., both in rural and urban areas. Furthermore, these groups have lower access to mental health care for financial, social and practical reasons.

The incremental impact of climate change could result in both direct and indirect impacts on mental health. Direct consequences relate to the effects of weather and climate patterns. For instance, the increase of mental-health issues in the wake of natural disasters such as hurricanes or floods is well documented [e.g. 14]. Unfortunately, this can, in some circumstances, increase rates of suicide and suicide ideation, as people struggle to deal with disruptions to their lives. Indirectly, damages to social and physical infrastructure, physical health, water and food supply, conflict, and displacement from climate change increase mental-health issues in the short-term and likely in the long-term [18]. Adverse psychological perspectives of climate change, such as 'ecoanxiety', have also been recorded, which refers to the looming threat and worry of climate change in daily life. This can leave people with feelings of helplessness, loss and frustration if they engage with the climate threat.

Indonesia still has a relatively low awareness of climate change. Around 18% of Indonesian's believe that climate change is not caused by human activity, contrary to 97% of scientists [19]. Therefore, how do governments increase awareness of a global issue without also heightening psychological distress. One finding is that threats like climate change can become a source of solidarity and positive community co-operation. Weissbecker [19] observed that communities can experience a sense of 'Post traumatic growth' (PTG), empathy, altruism, compassion and emotional resilience. Thus, government community action and psychological interventions should focus on strengthening the resilience of communities by increasing the sense of communion during times of crisis.

In regards to physical health, Watts et al, suggested that "By undermining the social and environmental determinants that underpin good health, climate change exacerbates social, economic, and demographic inequalities, with the impacts eventually felt by all populations". As mentioned, it may be more difficult for individuals and communities to maintain good health when necessary conditions for health are increasingly disrupted. Previously, in Indonesia, low SES has been linked with lower life expectancy, and higher noncommunicable diseases [20]. This can be attributed to various factors. For example, low SES has been linked with higher exposure to soil-transmitted-bacteria and intestinal parasites due to lack of sanitation and bad hygiene. This

can disrupt physiological conditions such as gut microbiome, essential for immune function and host metabolism [21]. Early life microbial dysbiosis is linked with increased rates of several diseases in later life, including obesity, chronic inflammation conditions, atopy, and infections.

Government aid must be provided to combat the disruptions to health related processes, both as preventative measures and significant natural events. For example, helping farmers, particularly those with lower SES, to adapt farming techniques in line with changing climates is crucial. This requires the provision of both learning and practical resources to make these adjustments. Likewise, crisis teams and the redirection of financial, medical and social aid to impacted areas will be important for supporting people in their recovery from hurricanes, floods, earthquakes and so forth.

Policies

Counteracting the effects of climate change was a key part of president Jokowi's 2019 campaign. However, due to the current COVID-19 pandemic, attention has again shifted away from environmental issues. While understandable, efforts need to be taken to ensure Indonesia is ready support its citizens as the effects of climate change intensify, especially disadvantaged populations. Thus, approaches should incorporate facets of political, government (i.e. policy), social, psychological, health care, economic and environmental action to improve local and national resilience.

One promising approach is to embed climate mitigation and adaptation policies at multiple levels of society. Multi-Level Governance (MLG) is one such framework, with climate change action being integrated across governance levels to reduce policy holes in two ways; (1) integrating local action plans with national framework policies, and (2) creating efficient action and communication between local and regional governments to facilitate cross-scale learning. The key implication of such frameworks is that the number of actors and participating levels should be emphasised, and responsibility for the decision making process cultivated at different levels of society. The framework has sometimes been criticised for vaguely defining hierarchies, and that such approaches can be inefficient if stakeholders are pulling in different directions. Therefore, effective education on

climate change is essential to ensure the scale of the threat is matched by corresponding co-operation. Local governments and related organisations must share responsibility for driving climate policy, as well as co-operating with centralised national efforts. On the other hand, central government need to empower local authorities in numerous ways to increase engagement with developing solutions. Thus, across and within community interactions could facilitate cooperation, resource sharing and integration of wider communications.

This could help to alleviate impacts to mental and physical health in low SES in several ways. Wider communications between communities and local-national governments may reduce feelings of isolation for impacted groups. Increased transmission of effective policies regarding the treatment of mental and physical health conditions, and adaption strategies for businesses, communities, health care systems etc. could increase the resilience of communities. Also, redirecting resources and aid, as and when needed, to impacted areas, such as when a natural disaster occurs, could improve their recovery.

Because low socioeconomic status is defined by lower education, income and occupation; sharing of resources and knowledge from higher, or more technologically advanced, SES segments of society is critical. Reducing feelings of isolation for low socioeconomic groups, and providing the resources for adaption strategies could foster more positive psychological responses and collective engagement with climate change. This could reduce the prevalence of mental-health issues by strengthening perspectives of coping and support. Likewise, physical health may benefit from this approach by improving local efficiency with food and water supply, provision of health care, community aid and damage recovery, either because of changing climates or natural disasters. Lastly, continuity between health care systems should be improved, possibly by furthering the integration of mental and health care services, creating crisis mental and physical health teams, and designing effective interventions to target both domains in high risk populations.

Conclusion

Regardless of the specific means, the effects of climate change on low socioeconomic groups, specifically for mental and physical health, needs to be addressed at all levels of Indonesian society. More focus

should be directed toward improving current mental and physical health care systems, and developing innovative ways of meeting the demands of climate change moving forward. This requires a strengthening of government policy and provision of funding to support such systems; taking advantage of latest technological developments such as online mental/physical health services (i.e. tele counselling, online CBT, online GP consultations). Furthermore, it's vital that co-operation and co-ordination between and within communities and provinces improve, both to support high risk areas and groups from changing climates and natural disasters. Incorporating knowledge of previous successful responses to natural disasters and climate variations, including adaption strategies for businesses and industries in different sections, would also be fruitful for strengthening Indonesia's resilience and dealing with the impact of climate change on mental and physical health.

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Uncertainty of Sustainability of Marine and Fishery MSMEs in Coastal Areas and the presence of Maritime Autonomous Surface Ships in the Era of Society 5.0

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Introduction

Society 5.0 argues as a human-centered society that balances economic progress with Industry 4.0. On the other hand, the environment has given natural resources that accelerate the growth of our economy towards sustainability [1]. In 2020, the International world began to talk seriously about the existence of Maritime Autonomous Surface Ships. MASS is an model of development of Robotics and Artificial Intelligence (RAI). The expected journey is ideally safe, described as maritime traffic that desperately needs suggestions, to produce an instruction. Therefore, it is needed management with a reliable level of complexity, especially for countries that have coastal areas. Such management is in the form of providing vessel traffic services (VTS) that have been started the late 1940s.

Today, there are more than 500 units of VTS operating worldwide [2]. Advice provided by VTS for the implementation of safe navigation, is a useful interaction to prevent potential collisions, grounding. VTS is an important bridge resource, as they are able to contribute to navigational safety. International Lighthouse Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) have developed guidelines and recommendations for VTS. Maritime countries have long recognized the need to improve navigational safety which is one component in global marine governance. Countries that have coastal areas deserve to provide infrastructure and navigation assistance services from the mainland. The function of VTS ships is to regulate the movement of maritime traffic in areas with high traffic density. These functions are performed through interaction with the ship's

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master and pilot to provide them with navigational information. This is the role of VTS, to explanation of how the existing relationship between manned ships and VTS. MASS presence as an unmanned vessel, accompanied by alternative fuels will soon open up new paradigm shifts. The change of concepts, patterns, standards in terms of new risks (such as non-navigational risks and cybersecurity threats) [3], Likewise the sustainability of marine and fisheries-based Micro and Medium Enterprises will be impact.

About 40% of the population of Europe lives in coastal areas [4]. In USA, 37% of the total population, about three billion people worldwide live within 200 km of the coastline. Nevertheless, the activities of the inter-city logistics network depend heavily on road transportation. Meanwhile, waterborne transportation emits lower Greenhouse gas emissions than road transport, but it is still not used properly. The shift in load to sea through Short-Sea-Shipping be role in greening the land transportation. By using autonomous vessels, some SSS challenges, such as crew costs can be eliminated [5]. According to [6], the U.S. is a country that can lead the paradigm shift in using small-size autonomous vessels. Furthermore according to [4], the use of ships that are on re-route by the operator aims avoid crowded ports

The electric-powered MASS namely the YARA Birkeland sails every day to transport fertilizer. By building infrastructure of this SSS route, the U.S. has successfully replaced 40,000 truck a year from road transportation. This will contribute greatly in eliminating CO_2 and NO_x emissions, reducing congestion, reducing noise pollution and improving road safety. However, the presence of MASS, requires an ability to advocate policies in organizing the oceans globally towards fairer direction. Furthermore, according to [7], the total number of fishermen and fish farmers worldwide in 2018 amounted to approximately 59.51 million. Based on Central Statistics Agency, shows decrease number of fishing households from 2 million to 966 thousand in 2016. In 2016 FAO reported that the number of fishing workers continued to decline. The number of fishermen in Europe also decreased from 779 thousand to 413 thousand during 2000-2014. Similar trends also occurred in North America and Oceania. Reform of marine and fishery policy is not followed by the performance of fishery affairs [8].

Indonesia as a maritime country has MSME assets marine and fishery, which is important sectors in the nation's economy. Based on [9], the number of MSMEs fish processing small micro scale has the largest proportion (62,389 units or 98.46 %). Meanwhile, medium and large scale UMKM only amounted to 975 units or 1.54 percent. Changes in public spending patterns, the use of internet-based shopping applications, need to be seen as an opportunity. Therefore, UMKM based on marine-fisheries Businesses need to transform from offline into an online system. The changes off line to online, technology of RAI systems, and IT, potentially replacing roles and reducing human interaction.

Advances in RAI-based technology characterized by the presence of MASS in small and large types. This causes the increasingly complex global ocean governance, and the trend of the number of fishermen globally declining. The sustainability of fishery biology decreases, and regulations that are not parallel to the advancement of RAI-based technology. It will have an impact on the sustainability of MSMEs' efforts in the availability access of key raw materials. Therefore, a holistic, cooperative, multidisciplinary, fair, and wise approach to global ocean governance is needed [10]. The higher of autonomy, complexity, and uncertainty, countries have to play a role in regulating, directing and protecting MSMEs. The aim of this paper is to formulate key components of uncertainty can affect the sustainability of MSMEs

Discussion

In order for the description of hierarchy and contextual relationship between the sustainability of marine-based MSMEs and fisheries and the presence of MASS as model RAI to be explicit, the analysis and syntheses used are through structural model approaches. According to [10], structural models are said to be useful, when composed of elements, sub-elements, and well-defined key sub-elements i.e.: (i) Well-defined objectives for agents, (ii) Well-defined constraints, (iii) Statements about **uncertainty**, what agents know and the beliefs of such agents about the uncertain outcomes; (iv) How constraints, preferences and beliefs vary across agents; (v) A model of interaction between agents; (vi) Some idea of which of the above elements will be invariant to changes in the economic environment.

Based on consultation with experts of the systems, state administration, environment, shipping techniques, marine, fisheries, and experienced fishing businessmen and MSMEs since the 1970s, the recommended component is a statement of uncertainty. What are the sources of uncertainty in the structural model to be built, and how sources of uncertainty can be believed will affect choice. Uncertainty refers to epistemic situations involving imperfect or unknown information.

Uncertainty Elements

The results of FGD followed by bureaucrats, academics and private agreed the number of sub-elements of uncertainty is 14. 14 sub-element, namely: (1) equitable global marine governance (E_1), (2) decreased sustainability of marine biota biology (E_2), (3) decreased human interaction (E_3), (4) legal conflict (legal integration in maritime industry) (E_4), (5) increased business conflict in maritime, marine and fishery (E_5), (6) marine functions become to Short-Sea-Shipping (E_6), (7) Fisherman profession to non-fisherman (E_7) , (8) the occurrence of increased accidents at sea (E_8), (9) grounding (E_9), (10) marine degradation (E_{10}), (11) marine ecosystem damage (E_{11}), (12) difficulty of cultural compliance at sea (E_{12}), (13) transfer of the professional functions of marine-based MSMEs and fisheries to non-MSMEs (E_{13}), as well as (14) the certainty of marine foodstuffs being legally caught (E_{14}).

The ISM method identified experts understanding of contextual relationships between uncertainty sub-elements. The relationship between sub-elements expressed with symbols V, A, X and O forms a matrix of respondents' perception, called structural self interaction matrix (SSIM) (Table 1). The contextual relationship of the uncertainty sub-element will affect the sustainability program of Marine Based MSMEs and Fisheries

Table 1 Results of the aggregation of seven experts on contextual relationships between sub-elements of uncertainty

No	E₂	E₃	E₄	E₅	E₆	E₇	E₈	E₉	E₁₀	E₁₁	E₁₂	E₁₃	E₁₄
E₁	V	V	V	X	V	V	V	V	V	V	V	V	V
E₂		V	A	A	V	V	V	V	V	V	V	V	V
E₃			A	A	A	A	A	A	A	A	A	A	A
E₄				V	V	V	V	V	V	V	V	V	V
E₅					V	V	V	V	V	V	V	V	V
E₆						V	V	V	V	V	V	V	V
E₇							A	A	A	A	A	O	A
E₈								A	A	A	X	A	A
E₉									V	V	V	V	V
E₁₀										X	V	V	V
E₁₁											V	V	V
E₁₂												V	V
E₁₃													V
E₁₄													

The SSIM is converted in binary matrices 1 and 0 into an initial reachability matrix (Table 2).

Table 2 Aggregation results of seven VAXO ISM processing experts sub-elements of uncertainty in marine and fishery based MSME sustainability programs

No	E₁	E₂	E₃	E₄	E₅	E₆	E₇	E₈	E₉	E₁₀	E₁₁	E₁₂	E₁₃	E₁₄
E₁	1	1	1	1	1	1	1	1	1	1	1	1	1	1
E₂	0	1	1	0	0	1	1	1	1	1	1	1	1	1
E₃	0	0	1	0	0	0	0	0	0	0	0	0	0	0
E₄	0	1	1	1	1	1	1	1	1	1	1	1	1	1
E₅	0	1	1	0	1	1	1	1	1	1	1	1	1	1
E₆	0	0	1	0	0	1	1	1	1	1	1	1	1	1
E₇	0	0	1	0	0	0	1	0	0	0	0	0	0	0
E₈	0	0	1	0	0	0	1	1	0	0	0	1	0	0
E₉	0	0	1	0	0	0	1	1	1	1	1	1	1	1
E₁₀	0	0	1	0	0	0	1	1	0	1	1	1	1	1
E₁₁	0	0	1	0	0	0	1	1	0	1	1	1	1	1
E₁₂	0	0	1	0	0	0	1	1	0	0	0	1	1	1
E₁₃	0	0	1	0	0	0	1	1	0	0	0	0	1	1
E₁₄	0	0	1	0	0	0	1	1	0	0	0	0	0	1

In the ism method, revision of SSIM with transitivity rule until final reachability matrix (Table 3). From the final reachability matrix can be determined the level of dependency (dependency) and driver power (driving force) element of uncertainty affects the sustainability program of Marine Based MSMEs and Fisheries effectively. The results of the processing of uncertainty sub-elements showed a level of consistency of expert opinion expressed at 95.92 percent (> 80 percent) or acceptable.

Table 3 Aggregation results of seven experts reachability of the final matrix of uncertainty elements in marine and fishery based MSME sustainability programs

No	E_1	E_2	E_3	E_4	E_5	E_6	E_7	E_8	E_9	E_{10}	E_{11}	E_{12}	E_{13}	E_{14}	DP
E_1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
E_2	0	1	1	0	0	1	1	1	1	1	1	1	1	1	11
E_3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
E_4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
E_5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
E_6	0	0	1	0	0	1	1	1	1	1	1	1	1	1	10
E_7	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2
E_8	0	0	1	0	0	0	1	1	0	0	0	1	1	1	6
E_9	0	0	1	0	0	0	1	1	1	1	1	1	1	1	9
E_{10}	0	0	1	0	0	0	1	1	0	1	1	1	1	1	8
E_{11}	0	0	1	0	0	0	1	1	0	1	1	1	1	1	8
E_{12}	0	0	1	0	0	0	1	1	0	0	0	1	1	1	6
E_{13}	0	0	1	0	0	0	1	1	0	0	0	1	1	1	6
E_{14}	0	0	1	0	0	0	1	1	0	0	0	1	1	1	6
Dep	3	4	14	3	3	5	13	12	6	8	8	12	12	12	

In accordance with the contextual relationship in uncertainty element, the results of ISM processing (Table 3), show that equitable global marine governance (E_1), legal conflict (legal integration in maritime industry) (E_4), and increased business conflict in maritime, marine and fishery (E_5) industries, have the highest driving force of (14) and the lowest dependency of (3). The three sub-elements are called key uncertainty sub-elements. Equitable Global Marine Governance requires further support strategies by national and local governments [11].

Figure 1 shows that, the decline in sustainability of marine biota biology (E_2), marine functions become to Sea-Surface-Ships (E_6), the occurrence of grounding (E_9), including in the independent sector (has high driving power and low dependence).
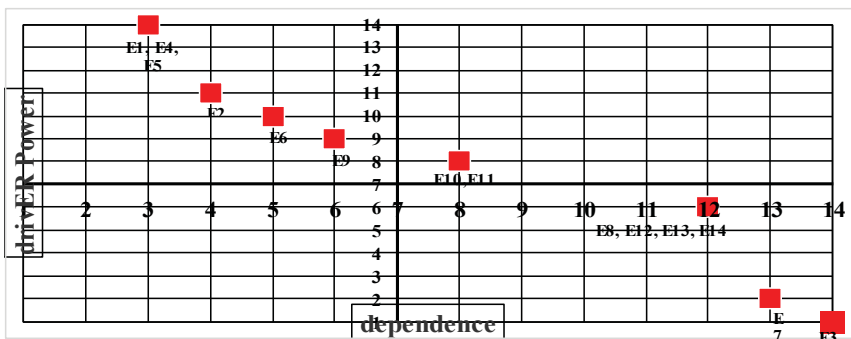

Figure 2 The relationship of driver-power and dependence to the element of uncertainty affects marine and fishery based MSME sustainability programs

Description on Figure:

E_1 : equitable global marine governance

E_2 : decreased sustainability of marine biota biology

E_3 : decreased human interaction

E_4 : legal conflict (legal integration in maritime industry)

E_5 : increased business conflict in maritime, marine and fishery

E_6 : marine functions become to Sea-Surface-Ships

E_7 : fisherman profession to non-fisherman

E_8 : the occurrence of increased accidents at sea

E_9 : the occurrence of grounding

E_{10} : marine degradation

E_{11} : marine ecosystem damage

E_{12} : difficulty of cultural compliance at sea

E_{13} : transfer of the professional functions of marine-based MSMEs and fisheries to non-MSMEs

E_{14} : the certainty of marine foodstuffs being legally caught

Marine degradation (E_{10}) and marine ecosystem damage (E_{11}) are included in the linkage sector. The four sub-elements of the occurrence of increased accidents at sea (E_8), the difficulty of cultural compliance at sea (E_{12}), the transfer of the professional functions of marine-based MSMEs and fisheries to non-MSMEs (E_{13}) and the certainty of marine foodstuffs being caught legally (E_{14}) have the same driver power and dependency, namely driver power (6) and dependence (12). Furthermore, sub-elements of fisherman profession to non-fisherman (E_7), and decreased human interaction (E_3) along with the four sub-elements above are included in the dependent sector.

The six sub-elements in the dependent sector are the result of uncertainty in the linkage and independent sectors. If the sub-element of uncertainty in the linkage and independent sectors is no longer problematic, then the six sub-elements of uncertainty in the dependent sector become important. Discussion of the importance of the uncertainty sub-element (Figure 3).
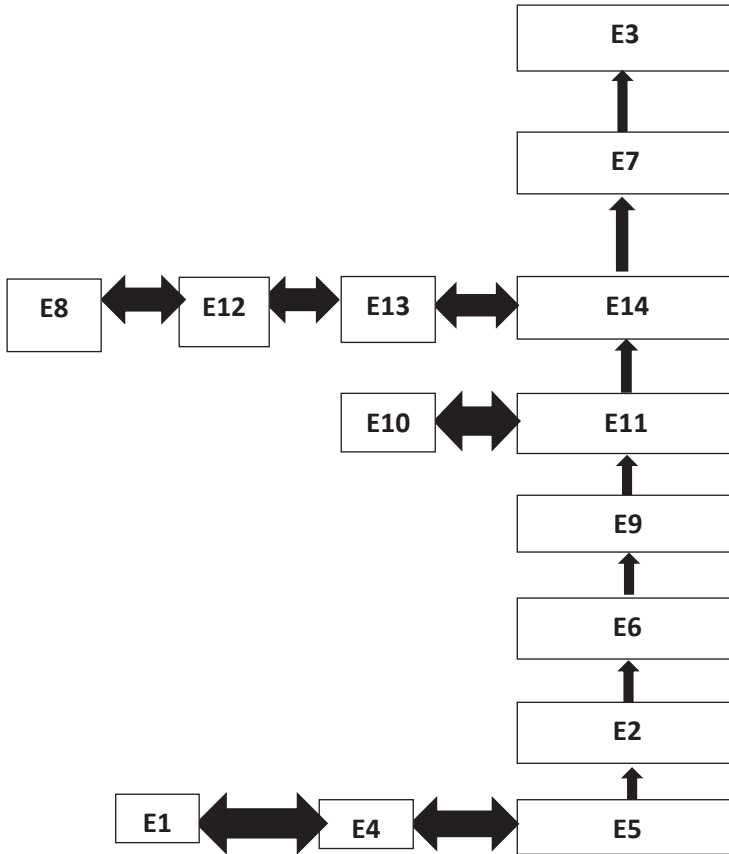
Figure 3 Diagram of hierarchy structure model of uncertainty sub-element in MSME sustainability program Based on Marine and Fisheries

Description on Figure:

E_1 : equitable global marine governance

E_2 : decreased sustainability of marine biota biology

E_3 : decreased human interaction

E_4 : legal conflict (legal integration in maritime industry)

E_5 : increased business conflict in maritime, marine and fishery

E_6 : marine functions become to Sea-Surface-Ships

E_7 : fisherman profession to non-fisherman

E_8 : the occurrence of increased accidents at sea

E_9 : the occurrence of grounding

E_{10} : marine degradation

E_{11} : marine ecosystem damage

E_{12} : difficulty of cultural compliance at sea

E_{13} : transfer of the professional functions of marine-based MSMEs and fisheries to non-MSMEs

E_{14} : the certainty of marine foodstuffs being legally caught

From the level of hierarchy and related relationships indicates that, the importance of uncertainty or opportunities expected in equitable global marine governance (E_1), the risk of legal conflict (legal integration in the maritime industry) (E_4), and increased business conflicts in the maritime, marine and fishery (E_5) industries, will result in uncertainty or risk of a decrease in the sustainability of marine biota biology (E_2), the risk of the transfer of marine functions to Short-Sea-Shipping (E_6), as well as grounding (E_9). Grounding is one of the causes of frequent accidents on ships.

In addition, grounding has a direct impact on the strength of ship base construction, so that if grounding occurs in carriers of hazardous substances such as oil tankers, liquefied natural gas (LNG), liquefied petroleum gas (LPG) can cause quite serious environmental damage, namely the risk of marine degradation (E_{10}), and marine ecosystems damage (E_{11}). MASS and modern global warming is rapidly accelerating and creating new challenges for sea creatures. As higher concentrations of carbon dioxide build up in the ocean and the waters acidify, greater damage is occurring to marine ecosystems, including the reduction of biodiversity in coral reefs and the hampering of animals' metabolisms. Changes to the current health of marine creatures like pteropods indicate the growing instability of their oceanic environment. Pteropods are a group of planktonic gastropods that are widely regarded as biological indicators for assessing the impacts of ocean acidification [12]

Marine degradation and marine ecosystems damage, resulting in an increase in accidents at sea (E_8), because the expected opportunities created cultural compliance in the sea is difficult to materialize (E_{12}), so the risk of the transfer of the professional functions of marine-based MSMEs and fisheries to non-MSMEs (E_{13}), as well as the expected opportunity that food sourced from the sea obtained legally can't be realized (E_{14}) is likely to occur. Risks over the profession of fishermen to non-fishermen (E_7), and decreased human interaction (E_3) both

fishermen and MSMEs Based on marine and fishery that will occur in the era of society 5.0

Conclusion

Equitable global marine governance, the risk of legal conflicts and criminal problems, and the risk of increased business conflict in the maritime, marine and fishery industries are key uncertainty components that are important and needed in the sustainability of marine and fishery-based MSMEs in society 5.0 era.

While the source of uncertainty occurrence of marine degradation and damage to the marine ecosystem have a high driver power (still under the key components), but has a high dependence. The two components will also be a source of uncertainty affecting the sustainability of marine-based MSMEs and fisheries, if the key components, and 3 components (decreased sustainability of marine biota biology, marine functions become to Sea-Surface-Ships, and the occurrence of grounding), are not immediately well prepared from now on.

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The Role Of Social Capital In Building Fairly Competition Between Traditional And Modern Markets On Society 5.0

Mochamad Ridwan[1]

Introduction

The fairly business competition is the goal of economic development in the business or trade sector and is very much needed in facing the era of society 5.0. The success of building fairly business competition is closely related to professional, productive, creative and innovative behavior. However, in empirical practice, there are still many phenomena of unfair competition and its impact has led to non-conducive forms of externalities, such as the occurrence of slums in a new concentrated market environment (agglomeration market consisting of modern markets and traditional markets in business activities side by side). Especially at this time (New Normal period or post Covid-19), the condition of the economic community is being faced with various obstacles such as a drastic decline in people's purchasing power due to labor rationalization, decrease in wages due to changes in the work system, and the increasing number of micro, small and medium enterprises "bankrupt" due to unable to compete in business. [1], [2]

Industrial Society 5.0 is a solution to the new industrial economic order after Industry Society 4.0. The concept of Industrial Society 4.0 uses artificial intelligence in its application. Many people think that in the era of Industrial Society 4.0, the application of high-tech machines will replace some of the work done by human's workers. Therefore, the industrial revolution in Society 5.0 is expected to create new value through the development of advanced technology and reduce the gap between humans and economic problems in the future. In the context of market competition between business actors in traditional and modern markets, the development of a

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fairly competition is a necessity, because if this is not the case then all of them will be crushed in a condition of business vulnerability that is difficult to recover as before. [1], [2]

Facing economic development in the Society 5.0 era, the aspect of social capital is an aspect that is very much needed, especially in forming a fairly business competition, such as an attitude of participation or an attitude of cooperation in the form of networks, mutual-trust, and etc. A case of unfair business competition as a result of not yet building up strong social capital has been shown in Bengkulu city. In this context traditional market (consisting of various informal business enterprises such as traditional retailers, a number of sellers / retailers of daily household needs, etc.) conduct their trading activities around the modern market area (consisting of several modern business ventures such as modern retailer / hypermart and several modern shops in the vicinity). The agglomeration that occurs in these two poles (traditional market poles and modern market poles) makes the market environment less conducive, which creates slum conditions, pollution in the form of unpleasant odors, and the market environment becomes disharmonious.[3], [4]

Unfair business competition usually occurs in agglomerations of business actors especially seen from agglomerations of producers/ sellers/retailers in the informal or traditional sectors. The condition of the informal sector is usually vulnerable to economic shocks, especially in terms of the raw materials needed in the production process. This vulnerability usually changes the attitude of a person (producer/seller) from being obedient to being disobedient (the emergence of moral hazard), changing a cooperative attitude to being uncooperative (just wanting to win alone) or more to impose his own will. The motivation or need for achievement is getting depleted and usually tends not to think rationally. This kind of attitude ultimately leads to attitudes or behaviors that are not based on competitive ability. In other words, the attitude of a business actor/individual business that is not in accordance with the proper corridor will lead to a form of unfair competition between business groups or business actors (competition that is not in accordance with the principles of the business that should be done). [5]

In the perspective of regional economic development, both traditional and modern markets simultaneously have very important contributions in increasing the economic growth of a region. Regional

income should be supported by all economic sectors in it, including the trade sector originating from traditional markets, modern markets, and others. Based on the urgency of the contribution of each existing market, the obligation to create fair and balanced competition is an responsibility for all stakeholders. Through a macroeconomics approach, Keynesian schools of thought are very important in explaining the role of the government as one of the most strategic stakeholders (as a mediator and regulator) in "controlling" a competition process towards a form of fairly market competition, given the two poles of the market (traditional and modern markets) have different forms and characteristics, where traditional markets lead to competition markets that are erratic in shape and modern markets lead to oligopolistic competition markets. Critical study of the phenomenon of competition between traditional and modern markets in the era of Industry Society 5.0 is very important in order to produce a model that is useful in providing solutions in regional economic development in a balanced and independent manner, especially in managing fairly and productive business competition. [5]

Discussion

A. Unfair Business Competition between Traditional and Modern Markets and Its Impact on the Environment Around the Market

Microeconomics theory shows that there are four models of competitive market which are covered, namely perfect competitive market, oligopolistic competitive market, monopolistic competitive market, and monopolistic competitive market. The four competitive markets tend to move according to their respective characteristics. One of the four existing competitive markets, only the oligopolistic competitive market is capable of interacting with traditional markets. "Modern markets" tend to lead to "oligopolistic markets", while "Traditional markets" lead to "informal markets" (forms of competitive characteristics are difficult to identify and include in any of the four existing competitive markets). In the case of market competition that occurs in Bengkulu city, an oligopolistic modern market is shown by the existence of a "Mall", which contains Modern Retailers (Giant, Hypermarket, and modern stores). The existence of this modern market is surrounded by traditional markets, informal markets which consist of traditional retail businesses, street vendors (PKL) and other

informal businesses/traders, both resident and non-permanent (most of their merchandise is basic daily necessities). [5], [6]

The concentration of business actors in traditional and modern markets (both occupying a certain area side by side) have resulted in changes in the atmosphere towards "unfair competition", with the following characteristics:

a) The occurrence of mutually-exclusive competition. This phenomenon can be explained by the fact that on the side of traditional markets which are built from business actors, most of whom are informal and traditional, it is very natural that this non-supportive attitude occurs. This is because individually they are more concerned with their own business than others. In terms of modern markets, mutual support among business actors has been built. This is motivated by the modern market conditions that tend to be oligopolistic in which there is a leadership figure who is able to control market prices (shown through the form of "Kinked Demand Curve", as one characteristic of an oligopolistic competitive market) and has network access. Chronologically, its appearance begins with the concentration and crystallization of interests in an agglomerative (grouping separately) within the business actors from both traditional and modern markets. This condition is generally triggered by differences in characteristics and interests (motivation) for dominating competition, especially by the modern market through its oligopolistic pricing strategy. The accumulative impact that occurs in the next market environment is "slum condition of the market environment", which is negative externality. In detail, the mechanism for unfair competition between traditional and modern markets can be described in Figure 1. [5]
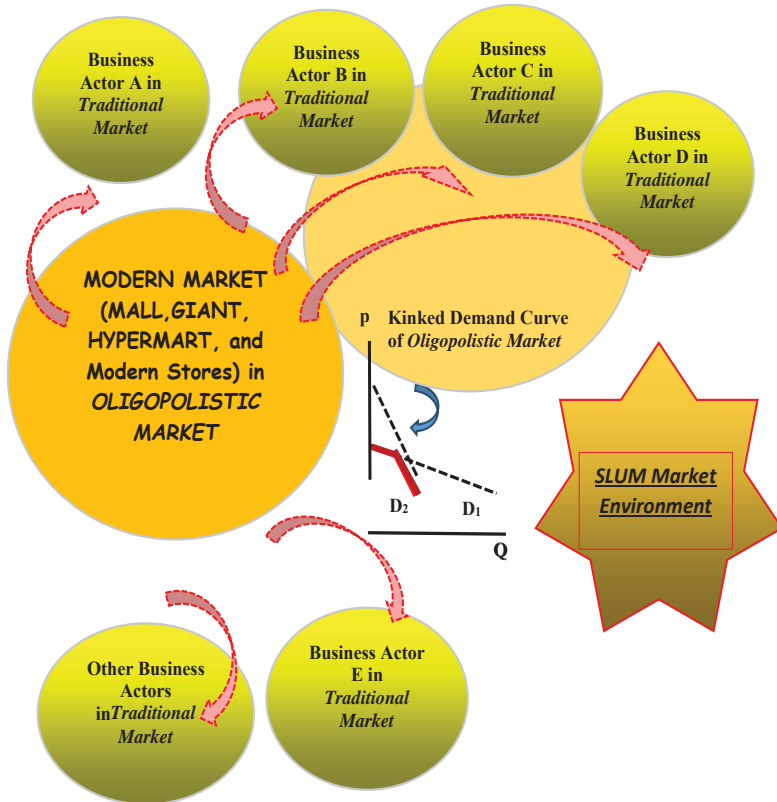
Figure 1: Unfair Competition between Traditional and Modern Markets

b) The Appearance of arbitrary or unwillingness to be regulated from business actors in the traditional market environment. Some of the contributing factors are: 1) the desire to choose a place that is considered strategic, so that the merchandise sells quickly, 2) because of a very urgent economic need, and 3) because of moral hazard which is expressed in the form of "apathy" towards the rules made by the manager, which are sociologically formed due to the solidarity factor between business people (traders or sellers) in the traditional market environment.

B. Social Capital and Its Role in Building Fairly Business Competition

The relationship between social capital aspects and the establishment of fairly business competition is quite significant. There are three elements of social capitals which are considered quite important and

strategic in social human resource development. The three elements of social capital include: an attitude of participation or an attitude of cooperation in the form of a network , mutual trust, and an attitude of togetherness that is born from a passion to help and care for the interests of others (altruism). In building fairly competition between business actors in traditional and modern markets, the three elements from the aspect of social capital have the same role in forming a triangle of the same needs and goals. The inclusion of three aspects of social capital can have an impact on the occurrence of intense internal interactions among business actors, which in turn will result in a transformation of a form of competition, namely from unfair competition to fairly competition. [4], [6], [7]

In business activities, participating or collaborating in a network is a form of cooperation between business actors in traditional and modern markets. To build fairly business competition, a cooperative spirit is needed that grows from each existing business actor. This condition is very necessary in reaching the desire to be able to realize cooperative behavior in real business, which in turn can create a form of fairly competition. In the next step, a forum for cooperation in the form of an association in each market must be formed. In the current empirical condition, the modern market already has an association called the Indonesian Retail Entrepreneurs Association (APRINDO). Therefore, it should be appropriate for traditional market to form an association institution that has the same function as those in modern market, all of which aim to create a balanced and harmonious cooperation mechanism between traditional and modern markets. The urgency of forming an association is so that the objectives desired by each market can represent the objectives of each business actor in the two markets.

The element of "mutual trust" in the aspect of social capital is an attitude shown through social relations between individuals in a social group (relationships between business actors) which are based on a feeling of confidence (trust) that the other party (other business actors) will do something that is expected and will always act in a pattern of actions that support one another. Implicitly, mutual trust indicates the emergence of a cooperative attitude among business actors as a group. Mutual trust plays a role as the basic capital in building a fairly business competition, meaning that business competition is based on aspects of honesty, openness, and a desire to move forward together. In other

words, business competition based on mutual trust will build business performance that continues to develop from time to time or develops in a sustainable manner.

An attitude of togetherness in business, cooperation, and fairly competition can be born from an attitude of enthusiasm in helping and prioritizing the interests of others (altruism attitude). Building fairly business competition between two agglomerations of business actors from traditional and modern markets is not an easy effort. Not many business people have the passion to help each other. Altruism is an important asset in accelerating the process of cohesiveness in doing business side by side, based on the nature of togetherness. The development of the spirit of togetherness and side by side in doing business will be a trigger in directing the form of business competition between the two markets (traditional and modern markets) towards a form of fairly competition. To accelerate the process of building togetherness in a group (business) of a particular market (traditional market or modern market), the leadership factor becomes very important. [4], [6]

C. Prospective Solutions of Fairly Business Competition between Traditional and Modern Markets

Efforts to create a fairly business competition in the form of concentration as happened between traditional and modern markets take a long time, but can occur in a relatively short time if the supporting prerequisites can be met immediately. There are two models (two scenarios) offered in relation to efforts to build fairly competition, namely: 1) Model I (scenario I), which deals with agglomeration of traditional and modern markets in two containers that are "side by side" with each other; and 2) Model II (scenario II), which deals with the agglomeration of traditional and modern markets in two "separate" containers, but in each market it is separated again based on differentiation based on products traded or products sold in the form of product clusters.

Model I (scenario I) is an offer that presents a model of agglomeration of traditional and modern markets in two "adjoining" containers. Model I assumes that business actors in both markets have formed an attitude of participation or an attitude of cooperation in the form of a network, mutual trust, and an attitude of togetherness

that is born from the spirit to help and prioritize the interests of others (altruism). By being given a container or a place that is close to or adjacent to each other, it is hoped that a fairly competition process can occur and negative environmental externalities such as the slums of the market environment cannot occur. This condition occurs because it is supported by an attitude of compliance with the agreed rules and the ability to protect the elements of social capital in the business competition process. In model I, the continuation of fairly competition will occur if an association has been formed which functions as an institution capable of acting as a mediator for business actors in conducting business interactions in the two existing markets (traditional and modern markets). Model I is outlined more clearly in Figure 2. [6], [8]

Figure 2: Model I of Fairly Business Competition between Traditional and Modern

Markets

Model II (scenario II) is an alternative model besides Model I. Model II presents a model of agglomeration of traditional and modern markets in two containers (locations) that are "separate" from each other. There are three assumptions from Model II, namely: 1) business actors in both markets have formed an attitude of participation or an attitude of cooperation in the form of a network, 2) mutual trust has been formed between business actors, and 3) an attitude of togetherness that was born from the spirit to help and prioritize the interests of others (altruism). With the agglomeration areas of the two markets that are separated from each other, it is hoped that it can accelerate the process of fairly competition and be able to eliminate negative environmental externalities such as the absence of a slum market environment. In model II, the continuation of fairly competition is expected to occur, because it is assumed that associations have been

formed in each market which functions as an institution that acts as a mediator for business actors in conducting business interactions in the two existing markets (traditional and modern markets). Model II is outlined more clearly in Figure 3. [6], [8]
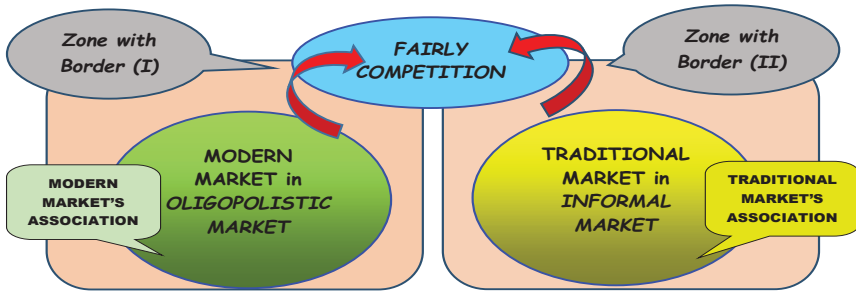
Figure 3: Model II of Fairly Business Competition between Traditional and Modern Markets

D. The Role of the Government as the Most Important Element of Stakeholders in Building Fairly Business Competition between Traditional and Modern Markets

Fairly business competition between traditional and modern markets can occur in a sustainable manner if all stakeholders play an active role in supporting the process of competition, either directly or indirectly. However, the reality is that fairly business competition is difficult to achieve. The main obstacle that is always faced is the low level of awareness of the business people themselves. The facts show that almost all informal traders included in traditional market agglomerations are difficult to regulate. Therefore, the role of the government as a mediator, regulator, and facilitator in the process of developing fairly business competition between the two forms of market is very important. In this context, two forms of empowerment that can be provided by the government to business players, especially from traditional market clusters, are the short-term empowerment approach (structural approach) and the long-term empowerment approach (cultural approach). In its implementation, these two approaches can be done individually or collectively (supporting one another). This empowerment model through a long-term empowerment approach can be considered as a model or method of empowerment with the aim of building a planning document (blueprint) that aims to improve

economic performance, especially in terms of sustainable fairly business competition.

The short-term empowerment approach (structural approach) can be carried out through a penetration program for capital assistance for traditional business actors, the construction of association institutions, and other facilities needed to strengthen the building of fairly business competition between business actors from both markets (traditional and modern markets). The long-term empowerment approach (cultural approach) is an approach in areas such as empowerment in the field of social capital, empowerment in the field of basic skills (technical skills, managerial skills, etc.). The effectiveness of long-term empowerment results is highly dependent on the desire, willingness and motivation of business actors from both markets in making changes from unfair business competition to fairly competition and maintaining the established conditions for fairly competition.

Conclusion

In Society 5.0's era, a pattern of fairly business competition between traditional and modern markets is needed. Efforts to create fairly business competition require readiness, both in the form of software and hardware. Three important elements covered in the aspect of social capital consist of an attitude of participation or cooperation in the form of a network, mutual-trust, and an attitude of togetherness that is born from the spirit to help and care for the interests of others (altruism). The three of them work in an integrated manner (interact with each other) on producing optimal economic performance through fairly and productive business competition. Two models can be adopted in relation to efforts to build a fairly competition, including: 1) Model I is a model of agglomeration of traditional markets and modern markets in two "adjoining" containers (locations), and 2) Model II, namely traditional and market agglomeration models. modern in two containers (locations) that are "separate" from each other. The effectiveness of the application of the two models depends on the conditions of the attitudes and behavior of previous business actors and the conditions in which the phenomenon of competition occurs. The important and strategic role of the government as a mediator, regulator and facilitator in maintaining the development of fairly business competition between traditional and modern markets in a sustainable manner is to empower

through short-term empowrment approach (structural approach) and long-term empowerment approach (cultural approach).

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Education in Cambodia
Dr. Mohamad Zain Musa[1]

Introduction

In Cambodia, scientists have found many written documents since the early time. The earliest written documents were in the form of inscriptions. The oldest one was found in Angkor Borei, South of Phnom Penh and was first published by George Cœdès in 1942. "The inscription is dated from 611 CE (533 Saka). It is written in Old Khmer with Sanskrit loan-words and engraved in the Early Pallava script." And catalogued as K.557/600. Since then many more were discovered and have been studied by many, including Coedès, Aymonier, Majumdar and later by Pou Saveros. Many Cambodian inscriptions were discovered especially during the French protectorate (1863-1953) and until today there are some 1,200 found across the ancient Khmer Empire spanning the period from 802 to the year 1431, when Angkor fell to the Siam Invasion. The Khmer inscriptions are one of the legacies left behind by the once famous empire in Southeast Asia also known as Kambuja or Kambujadesa. The inscriptions alone bear testimony of the greatness of Angkor Empire including its system of education. Without this solid system in place we believe that inscriptions upon inscriptions could not be produced, all in Khmer and Sanskrit, besides the arts of monument construction the testimonhy of which is Angkor in which lay the majestic monuments of Angkor Wat and Bayon.

Education System in Cambodia

We were not sure of what system of education were in place then but we learn that after the Angkor Empire, the Khmer education was perpetuated by the Buddhist monks, traditionally in the *wat,* Buddhist monasteries; therefore, the education was offered exclusively to the male population. The education involved the foundation of Buddhism

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and skills for daily life like carpentry, artistry, craftwork, constructing, playing instruments etc.

(Source: Wikipedia)

This 'traditional' education went on until the arrival of and during the French protectorate, during which there were not much changes in the Cambodian education system compared to the early times. The French had introduced a formal education system influenced by a Western educational model alongside with the traditional education. At the earlier stage of her protectorate, France has initiated to establish the first "modern" Franco-Cambodian school in 1873. It was the French-language *School of the Protectorate*, in Phnom Penh. Then in 1893, the school was upgraded to *Collège of the Protectorate* and then *Collège Sisowath* (Sekolah Menengah Pertama Sisowath) in 1905. The Collège trained those who would be working in the French colonial administration, the judiciary and the indigenous administration. And only in 1933 that the first full secondary school was set up, and again it was the upgrade from Collège Sisowath to became the *Lycée Preah Sisowath*.

Only by 1939 that the first Cambodian students graduated from the Lycée Preah Sisowath with *baccalauréat*. By 1954, there were only

144 Cambodians who had completed their secondary education with baccalauréat. The education was done in French; only from 1970 all level of primary and secondary education was conducted in Khmer, the Cambodian national language. This is done because the education in French does not help to benefit the Khmer national language. Pedagogically speaking, the mother tongue is the best means to transmit knowledge from teachers to students. Thus, the process of *Khmerisation* [6] officially started in 1967 and reached the University level by 1974.

The progress in education system was felt all over the newly independent country. Many primary and secondary national schools were opened; universities and technical colleges were opened. But this progress in transforming Cambodians into more knowledgeable citizens was short lived as the war has started again in 1970 and by 1975 was won by the inhuman regime of Khmer Rouge lead by the Pol Pot clique. During the period of its rule, 1975-1979, for less than four years all modern infrastructure, finance, health care and most importantly education were completely destroyed. And not to forget the systematic killing of its citizens; it is believed that some 1.5 to 3 millions of Cambodians were killed or died of starvation. Under the Pol Pot regime, the schools and universities were closed and Lycée Sisowath was used as army warehouse.

January 7, 1979 was a historical day for Cambodians. With the help of Vietnamese army, Pol Pot was chased out and a new government was formed. As almost all those who were "intellectuals" - just by appearance alone - including learned monks and Ustaz, especially teachers were killed. Schools were gradually reopened. The Lycée Preah Sisowath which was renamed Phnom Daun Penh High School and officially reopened on January 21, 1980, and retake its glorious original name in 1993. Cambodian wars have made the education system chronically suffered and was completely destroyed during the Red Khmer regime. From 1979 until 1993, education was gradually reconstructed from almost 'Zero' [12]. Now the system has been restructured thanks to the many donors from all over the world, NGOs and governments.

We can classify the education system in Cambodia as religious base and modern education. There are two types of religious education namely Buddhist and Islamic education systems. The Buddhist System catered for the majority of the Cambodian population, the Buddhist

Khmer; whereas the Islamic education system catered for the Muslim Cambodians, the *Khmer Islam*.

Buddhist Education System

It has been known that Buddhism has arived in Cambodia in the 3rd century BC, followed by Hinduism, at around the 1st century BC. When the Khmer Empire came to being, Hinduism remained the dominating religion but slowly Buddhism regain dominance until the present day Cambodia. Theravada Buddhist school is the dominant branch though there are a small number of followers who adhere to the Mahayana Buddhism. Buddhism is the state religion. Some 93% of the population is Theravada Buddhist, with an estimated 4,392 pagodas throughout the country. The Mahayana school of Buddhism claims more than 34,000 followers and has 105 temples.[4]

The early Buddhist Education centered in pagodas or Wat, in Khmer, where the boys were mainly taught to read and to write Khmer besides the teachings of Buddhism. Its curriculum includes moral, cultural and social education. It is here in the Wats that the Khmer culture and language was preserved and transmitted from generation to generation. During the French protectorate, it is in the Wats where almost all the Khmer children were sent for their education. This phenomenon remains even during the French Protectorate; the Khmer parents prefered to se3nd their children to Wat for one important reason, they believed that going to French school, they children would become French.

In 1933, a secondary Buddhist school was created within the Buddhist religious system. Many Wat schools had so-called Pali schools that provided three years of elementary education from which the student could compete for entrance into the Buddhist lycées. Graduates of these lycées could sit for the entrance examination to the Buddhist University in Phnom Penh.

A Pali class in a Buddhist monastic school, Kampong Cham province [13]

The Buddhist schools in Cambodia are classified into two, namely the Dhamma-Vinaya School and Pali School. The Dhamma-Vinaya school system provided a three-year program in the monasteries throughout the country. According to the 2012-2013 of Ministry of Cults and Religious Affairs statistics, there were 7,390 students who studied in Dhamma-vinaya schools with 659 teachers. Generally speaking, the Dhamma-Vinaya Schools train Buddhist novices and monks. Vinaya, meaning 'discipline, rule, morality, or virtue' is taught beside the life of Gotama Buddha. At the end of each academic year, students sit for certificate examination which is held for whole country.

There are also the Pali schools in many Cambodian monasteries. It provides a three-year elementary program. Its curriculum consists of the study of Pali, Buddhist doctrine, Khmer, and some modern education subjects such as mathematics, Cambodian history and geography, science, hygiene, civics, and agriculture. After completing this, they will sit for the elementary education before they can be accepted into Buddhist high schools created in 1933. Graduates from both Dhamma-Vinaya and Pali high schools could sit for the entrance examination into the Buddhist University in Phnom Penh. The university program is a four-year program.

Preah Sihanouk Raja Buddhist University [10]

Besides universities, the Buddhist Institute was a research institution formed in 1930 from the Royal Library. The institute contained a library, record and photograph collections, and a museum. The institute has several commissions including folklore commission, which is responsible to publish collections of Cambodian folktales, a Tripitaka Commission completed a translation of the Buddhist canon into Khmer, and a dictionary commission produced a definitive two-volume dictionary of Khmer, also known as Chuon Nat Khmer Dictionary, which is the Khmer language reference until now.

Buddhist education is under the authority of the Ministry of Cults and Religious Affairs. The Ministry (2012- 2013) statistics show that in 2012 Cambodia has:

775 Buddhist Primary schools, with 26,462 students and 1817 teachers;

35 junior high schools, with 4817 students, and 614 teachers;

17 senior high schools, with 1685 students and 377 teachers; and

5 Buddhist universities.[7]

Buddhist monastic schools are not run by the government. The temples play a very important role in developing the Buddhist education in the country. They open, run and support the schools. The funding come from generous people, the temple management

use part of these funds for the schools. Finally, the Sangha and the Buddhist temples play important roles in Cambodian society. For the Buddhist community the Sangha are teachers, spiritual teacher, doctors (espwecially in treating emotional health problems), lawyers (to solve people disputes); consequently the Wats are part and parcel of the Buddhist community.

Islamic Education

Since the Khmer Islam is an integral part of the Cambodian fabric, Islam education is part and parcel of the whole society, as education - to acquire and spread of knowledge - is compulsory to all Muslim of any gender, male or female. Education from Islamic perspective is often defined by Muslim scholars from three different dimensions which are reflected in different concepts: *tarbiyyah* – the process of education that gives emphasis on physical and intellectual development of an individual; *ta'dib* – the process of education that gives emphasis on nurturing good human beings with noble codes of conduct/ethics approved by Islam, so that he may conduct and position himself in society with justice; and *ta'lim* – the process of education that is based on teaching and learning. The first revelation to Prophet Muhammad (PBUH) in *Sūrah al- 'Alaq* (verses 1-4) is the order of the al-Mighty to "read" but "reading" that is learning and teaching must be "in the name of your Lord".

Since the early times, in Cambodia, the Islamic education is done through home schooling, from the elder to the younger generation. And since the arrival of the Malay in Campa and Cambodia, the concept of pondok was brought over, and the teachers taught their young either in their houses or in musallas, masjid or surau. It was the same when Indochina was under the French colonial.

Only since the fall of the Khmer Rouge regime and especially since 1993, that the Cambodia Islamic education is better organised. This is done mainly by the young refugees in the 1970's to Malaysia where they gain their knowledge of Islam up to university levels, either in Malaysia, Saudi Arabia, Egypt and Libya. They open many schools especially in their villages of origin, with the help of foreign donors. There are many types Islamic schools in Cambodia such as the Koranic, Tahfiz schools, Madrasah and since 2012, integrated schools.

Since August 1, 2015 the Cambodian government, through the Mufti's office, has enlisted some 1,500 salaried Islamic teachers. Most of them have vast knowledge of Islam but are not trained teachers. There were recommendations that the ministry of education consider providing them with pedagogical training for a better-quality Islamic education.

National Education System

After the Khmer Rouge was toppled in January 1979, the national education as well as the Wat and Madrasah education were making a slow recovery. Schools especially those in cities were opened one after the other, and more were opened after the 1993 UNTAC sponsored national election. The Faculty of Medecine and Pharmacy was reopened in 1980 with a six-year program followed by the Kampuchea-USSR Friendship Technical Institute, now Institute of Technology of Cambodia (TIC), the Institute of Languages, the Center for Pedagogical Education (formed in 1979) the School of Fine Arts. During this period of PRK administration, education system was based very closely to the Vietnamese model [5].

The present education in Cambodia is controlled by the state. The Cambodian education system includes pre-school, primary, secondary, tertiary education and non-formal education. The educational system, both public and private is under the MoEYS (the Ministry of Education Youth and Sport).

Primary education is a six-year program; the six levels are called Grade One to Six. It is compulsory upon the parents or guardians to send their children of six years of age to primary school. The medium of instruction is Khmer all the way in primary and secondary education. There is no examination upon completion of primary education.

The next phase is secondary education. It is a six-year program divided into two parts: the lower and upper secondary education. The lower secondary school, the *anu vidiyalai,* offers a three-year program, grades Seven to Nine; there is an examination upon completion the Nineth Grade. From this on, the education is not compulsory.

Those who are successful in their grade Nine national examination will go to *vidiyalai*, for their upper secondary education. Now the education is divided into two streams, Sciences and Social Sciences.

This is to prepare the students for the various fields of studies in tertiary education. The twelfth grade examination has seven subjects for sciences and social sciences streams.

Sciences Baccalaureat subjects:

Mathematics	Physics Chemistry
Khmer Literature	History Biology
Foreign Language	

Social Sciences Baccalaureat subjects:

Mathematics	History Geography
Khmer Literature	Earth & Environment Scs
Foreign Language	Moral-Civic Education

In fact, all grades 10-12 students of both streams attend all the twelve subjects, but with different weightage, translated into different numbers of hours per subject per week.

The largest university, the Royal Phnom Penh University, in 1970 had nearly 4,570 male and more than 730 female students in eight departments - letters and humanities, science and technology, law and economics, medicine, pharmacy, commercial science, teacher training, and higher teacher training. In 2011, Cambodian tertiary enrollment rate was 10%, which was low when compared with other nations. At present, there are 21 public universities and institutions of higher learning, and some 40 private universities.

More than 200,000 are enrolled in tertiary education. The Accreditation Committee of Cambodia (ACC) manages and operates the accreditation system. A research culture is not in place but gaining strength through research grant program and regional cooperation. In this case YASMA (Yayasan Musa-Asiah) provides a helping hand to lecturers especially those from Indonesian universities whom it has cooperation by providing them guides and translators, which to YASMA is an enormous contribution to the Cambodian nation. A number of key policy actions including the Research Policy Master Plan, a Royal Decree on Professor ranking and the Higher Education Vision 2030 are now in place. A major challenge for the coming years is to address the needs of the labor market in terms of skills, critical thinking ability.

Non-Formal Education

Non-Formal Education include literacy classes especially the age group of 15-24 years of age. The literacy rate has now increased to 91.5%. There are a number of Community Learning Centers which provide skill training classes for handicraft (35.8%), hairdressing/make-up (19.5%), dance/music (15.1%), mechanic (12.7%) and other skills.

Conclusion

There is a significant number of schools in Cambodia built and funded by overseas supporters, individuals or institutions especially NGOs that assist with trainings and resources. The royal government of Cambodia recognises the role played by these NGOs as very significant in education development in the kingdom. The 2011 Minister of MoEYS was on public record as saying that the input of these NGOs is an integral part of the education strategy and that without the NGOs the government would not be able to reach its education targets [12]. YASMA is assisted by many organisations like the AMCA (ASEAN Muslim Community Association) in its education development in cooperation with many other institutions to provide training and other assistances to develop the YASMA academic goals.

In relation with the NGOs, MoEYS in its 2010 Education Strategic Plan to expand the relation between the public-NGO-community in formal and non-formal education in the whole country. In 2012 and 2013 the MoEYS rolled out a registration process designed to integrate NGOs into the overall education framework and to ensure NGOs meet standards in teaching quality, physical environment and governance. By so doing, the government hope to have the means for some government leverage or control over this sector, as well a clearer means of gathering relevant statistical information. Only the future can tell how the close relationship between the NGOs and the state in both formal and non-formal education can bring about the success to the education system of Cambodia, which as we know education is the foundation for the betterment of the population livelihood.

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Perspective on Problem Solving in Singapore Education System in the Era of Technology

Mohd Amin Bin Kadir[1]

Introduction

Singapore has established its desired outcome for every student completing its formal education should attain, a good sense of self-awareness, a sound moral compass, and the necessary skills and knowledge to take on the future. Apart from these three essential components, they are expected to be a confidence person, self-directed learners, active contributors, and concerned citizens. At every stage of their education system from primary school, secondary school, and post-secondary education are guided by a set of developmental outcomes. This was done by ensuring that at every stage, a strong foundation was lay before its scaffold to the next stage. Singapore has an exciting and tested education system with continuous efforts to guide its students to achieve good results. This is to ensure that each student will do their best in every aspect they venture into.

Having good infrastructure, such as good schools, versatile school leadership and best teachers in various fields is the strength of the Singapore education system. This allows Singapore to prepare the future generation to embrace in an uncertainty world. Singapore has the courage to reform its education system and is quick to adapt to the ever-changing demands of the world, especially when the world is plagued by the covid-19 pandemic. Their teachers are not defensive with the changes that have taken place but have even made modifications to the way they teach with the support of technology. This is in contrast to the attitude of some teachers in other countries as once mentioned by Schlechty (1997), "Neither is it surprising that many, if not most, teachers are skeptical, if not cynical, about the need for and prospects of school reform."

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Singapore has made plans ahead of time in preparing its students such as by introducing Home-based Learning (HBL) way before the covid-19 pandemic. Although not done intensively during that period but has mentally prepared students and teachers with the online learning system. With the current situation, HBL will be a routine part of the school curriculum as reported by Sandra Davie quoting former Education Minister Ong Ye Kung, "The sensible thing to do is to complement classroom teaching with HBL, and make HBL a permanent and regular feature of education.

Singapore is known for producing students who mastery the learning of mathematics and science in problem solving. Even their students excel in reading and solving problems in teams. This is certainly not the result of a coincidence learning but is designed to create an environment and learning that leads to problem solving skills. Singapore's ability to produce top performers in problem solving has attracted education experts and researchers to study the improvement and capabilities of Singaporean students.

Problem Solving in Singapore Education System

Singapore Performance at Programme for International Student Assessment (PISA)

According to The Organisation for Economic Cooperation and Development (OECD), which conducted the Pisa test in 2015, Singapore students score 535 in Reading, 564 in Mathematics and 556 in Science out of 600. PISA also conducted its first assessment in wanting to understand the ability of 15-year-old students working together to solve a problem as in a real-world situation, collaborative problem-solving skills were tested. PISA's definition on collaborative problem-solving competence as "the capacity of an individual to effectively engage in a process whereby two or more agents attempt to solve a problem by sharing the understanding and effort required to come to a solution and pooling their knowledge, skills and efforts to reach that solution". The findings show that "Singapore is the top-performing country in collaborative problem solving (561 points) and performs significantly above all other education systems. Singapore's students perform even better in collaborative problem solving than their already strong performance in science, reading and mathematics would suggest." (PISA 2015)

In PISA 2018, OECD announced its findings on 22 October 2020, the assessment that was done on 15 years old students focuses on their proficiency in reading, mathematics, science and innovative domain i.e. global competence and on students' well-being. In the competence test, Singapore students score 549 in Reading, 569 in Mathematics and 551 in Science. There was a significant improvement as compared in PISA test in 2015. About 46% of Singapore students who took the Global Competency proficiency test in 2018 achieved highest proficiency at level 4 and 5. In relation to the 27 education systems which participated in the assessment with an average of 14%, Singapore has the highest proportions. According to Singapore Ministry of Education (2020), "At these proficiency levels, our students showed a strong ability to identify and analyse different perspectives, evaluate information to differentiate between biased and unbiased sources, assess situations and make connections across multiple activities within a problem." These proficiency components possess by Singapore students shows their ability in critical thinking and thinking processes, distinguished between facts and knowledge, and collaborate and communications. Alongside with these proficiencies, the spirit of innovation and creativity was imbued in them.

The PISA assessment serves as a students' global performance indicator for every country to constantly review their education policy to prepare and equip their citizens in entering the global workforce. According to Angel Gurría, OECD Secretary-General, as quoted by Andreas Schleicher,

> "Equipping citizens with the knowledge and skills necessary to achieve their full potential, to contribute to an increasingly interconnected world, and to convert better skills into better lives needs to become a more central preoccupation of policy makers around the world. Fairness, integrity and inclusiveness in public policy thus all hinge on the skills of citizens. In working to achieve these goals, more and more countries are looking beyond their own borders for evidence of the most successful and efficient education policies and practices…PISA is not only the world's most comprehensive and reliable indicator of students' capabilities, it is also a powerful tool that countries and economies can use to fine-tune their education policies."

The success of Singapore students is due to the long-term planning done by its government. They are constantly reviewing education

policies by looking at globalization trends that have an impact on society and economy.

The Ability Driven Phase

Singapore experienced a recession that for the first time since independence in 1985 has affected Singapore as well as revealed its weaknesses that are too dependent on high labor costs and focusing on small internal markets. External and internal factors that have caused Singapore's economic growth to plummet sharply have shocked everyone. Singapore conduct major changes to its economic policy. Singapore restructure its economic by leveraging on intellectual capital and technology. After restructuring the new economy, major change was then conducted in Singapore's education system which at that time was already effective.

According to Gopinathan (2013),

> The ability-driven phase began in 1987 with a move towards decentralisation, leading to the creation of independent, later, autonomous schools. This was built upon in the decade of the nineties by initiatives in reducing content and promoting critical and creative thinking, policies to extend use of ICT in schools and policies on values and citizenship education. The key intent behind all these reforms was to make the system flexible and responsive, to encourage greater diversity in curriculum and pedagogy, and to better tailor it to a wider range of talent and ability and to pay more attention to diversity. The school system is now much more diversified than it was in the nineties.

Singapore began building schools specifically for its academically weak students. Changes to the curriculum occur by focusing on activities and being student-centred. Changes to the assessment are reduced by giving more assignments. Exam question papers were redesign by incorporating problem-solving skills. Teachers are encouraged to innovate in pedagogy.

Thinking Schools, Learning Nation: Preparing for Future Workforce

Former Prime Minister Goh Chok Tong launched "Thinking Schools, Learning Nation" in 1997. It aims to encourage students to see that the educational process is a long way in developing creative thinking skills and passion for learning. Thinking Schools, Learning Nation is an extension of Singapore's economic resilience towards a knowledge-based economy. The outcome of this visionary statement

is to produce a thinking and inquiry-based workforce whom credible enough to make sound judgements, a united citizen, and are committed in life-long learning.

Singapore visionary leaders have a very broad imagination by anticipating the challenges that the workforce will face in the near future. In a keynote speech on, "Shaping our future: Thinking Schools, Learning Nation" at the opening of the 7th International Conference on Thinking, former Prime Minister Goh Chok Tong stated, "We do not even know what these problems will be, let alone be able to provide the answers and solutions to them. But we must ensure that our young can think for themselves, so that the next generation can find their own solutions to whatever new problems they may face."

The landscape of education is constantly changing dynamically. Making predictions in the future remains subjective. But this does not mean that we cannot anticipate by taking action by equipping our students with appropriate skills like problem-solving, critical thinking, innovative and others. The way we perceive education is not just overloading the students with information but rather to nourish or to bring up them. This goes back to the Latin word 'educare' from which the education word derived.

Teach Less, Learn More: Improve Quality Teaching and Enhance Student Learning

Since the change in education policy in 1997, Singapore has transformed classroom teaching by adapting to the syllabus, not relying on memorization, and innovate teaching methods that involve students' readiness to face the real world with a new concept of "Teach Less, Learn More ".

This concept of "Teach Less, Learn More" was first introduced by Singapore Prime Minister Lee Hsien Loong in 2004. It aims to overcome the challenge of transforming classroom practice. This is stated in his speech during the National Day Rally,

> "In fact, I think we should cut down on some of this syllabus. It would mean less pressure on the kids, a bit less rote learning, more space for them to explore and discover their talents and also more space for the teachers to think, to reflect, to find ways to bring out the best in their students and to deliver quality results. We've got to teach less to our students so that they will learn more. Grades are important – don't forget to pass your

exams – but grades are not the only thing in life and there are other things in life which we want to learn in school."

In his speech the term 'bring out the best in their students' was used and in alignment with the etymologic of education. The central focus in on the students itself as a self-directed learner. Students take ownership on their own learning Teachers play the role of a facilitator in identifying each student potential and guide them to the best of their ability.

Leading the Way to Knowledge-based Technology

The world in the last few decades has undergone rapid changes resulting in the role of learning and education also experiencing a similar situation. Skills such as problem-solving and critical thinking have existed in the last decades of education, are now increasingly prominent and becoming relevant in the management of daily life. The world today is seen to be "shrinking" when it comes to technology, media, and information. Changes to the world economy have affected one's employment and income as a result of uncertainties in economic direction, especially with the onset of the covid-19 pandemic. The world community is also increasingly concerned about issues involving the environment, climate change, privacy, food, water, energy, security, trade, and terrorism. This requires the world economy to innovate to stay competitive in meeting the demands and needs of its citizens.

To provide an environment in a changing world, our future generations need to be equipped with the right skills, values and attitudes that can support them in learning and innovation skills. Attitudes and values such as cooperation, curiosity, dimensional thinking, caring, failure recovery, confidence, and courage are among the needs that need to be applied in learning

The world today has no boundaries with the availability of digital technology that connects every corner of the globe. New knowledge and skills are needed that are technology-oriented should be developed as knowledge-based technology where the world economy is not too dependent on the workforce performing labor and manual work. The concern of education on knowledge-based technology requires every citizen to equip with problem-solving skills in the face of the ever-changing digital and technological world. Thus, problem-solving in education is the main source to provide a comprehensive diversity of

perspectives to face the possibility of various scenarios in an uncertainty world.

Problem-Solving in Education

Problem-solving is a skill that unravels questions, scenarios, statements to learning with a creative approach that requires a high level of thinking and complex communication skills. The main source of learning skills and knowledge is to meet the demands of new skills in the new workforce is the close relation between problem-solving with a high level of thinking, and collaboration and communication. Innovating in a high-level thinking requires a high level of imagination, persistence in creating something new, always providing excellent service and production of quality products.

Problem-solving also focuses on new exploration and innovation and not only describes a problem but also provides a new opportunity. The new opportunities found may not be explored and create new motivation and perseverance for a student in facing these challenges. Students are prone to new challenges if they get the right guidance from teachers because they are surrounded by digital technology where information is easily accessible. The role of the teacher is how each piece of information is used correctly and accurately.

Education is a platform for applying problem-solving learning that allows students to see a problem from a different point of view. This is to prepare students independently with the real world that is constantly changing dynamically. Students will not find answers to complex problems from what they have learned in school, but their ability to make sound judgments, far from being biased is crucial in providing solutions. Apart from that, asking good and critical questions on the subject enable them to evaluate and breakdown the problems into different components and form a perspective to solve the problem. Communicating the work of others will allow the students to understands on how learning takes place resulted in the new knowledge.

Critical Thinking in Problem-Solving

Adopting critical thinking in problem-solving are considered as a front liner in the innovation learning towards knowledge-based technology. The science of thinking has become the main focus among researchers and educators in teaching principles in all subjects taught without relying on facts alone. Critical thinking as the name suggests

is a combination of two words, i.e. critical and thinking. Being critical means the ability to review the subject beyond basic assumption and not making quick conclusions. Identify the factors within the contents that has considerable implication on the outcome of the results. The thinking process involves horizontal and vertical thinking with deep understanding of the problems and the ability to ask constructive questions and answer questions credibly.

There is a difference between fact and knowledge because facts themselves are not necessarily knowledge that requires one to think. Knowledge is acquired through a way of thinking that triggers our brain to think about something so that we are able to make sound judgments towards a knowledge base that involves the use of knowledge in all areas. Thus, thinking skills help a person acquire knowledge and can improve learning outcomes.

The ability to analyze, interpret, evaluate, summarize and synthesize all the information obtained requires critical thinking skills. The result of critical thinking is then used to solve problems or overcome any concerns or any uncertainties. Critical thinking skills come in a variety of ways as explained by researchers or experts in problem solving and are not limited to one particular way.

The revised taxonomy model organizes ways of thinking in order by remember, understand, apply, analyze, evaluate and create; then held a division by categorizing remember, understand and apply as low order thinking skills and analyze, evaluate and create as high order thinking skills. The order of thinking of the taxonomy model by following a bottom-up approach should not be rigid. Thinking process can take place with a top-down approach or a combination of any thinking order that gives flexibility when planning learning activities to suit the level of intelligence of students. There must be enough space for students to think differently in different ways and opportunity to apply it.

Students can learn critical thinking skills in problem solving by using various approaches in inquiry activities by instilling students' interest by using teaching materials creatively. The ability of students to apply in any form of thinking skill will give them the advantage to solve various problems by innovating or thinking out of the box by not sticking within the traditional ways of learning.

Communication and Collaboration Skills in Problem-Solving

The basis for good communication for students is clear speech, reading and writing. To encourage joint learning among students requires communication and collaborative skills. For that we need to understand extensively and deeply the skills required by students in communication and collaboration. Language proficiency is important and is fundamental in developing communication and collaboration skills.

The effectiveness of communication can be conveyed when students are able to express their thoughts and ideas through speech, writing, and nonverbal communication skills. Sharing opinions and ideas can be done in different situations and conditions according to different contexts so that students feel comfortable with the exchange of information among them. Students who have good ideas or opinions but if not able to articulate their thoughts will find his ideas distorted or unable to provide a good solution to a problem. This certainly gives inaccurate answers and hinders the communication process.

The use of communication occurs in multiple ways depending on its purposes and the extend it was used. The use of media and technology effectively with the combination of text or sound and visuals together will engage students to learn better and understand the impact of such use in problem solving. Student using traditional approaches with a single media will be outperform by students using multimodal designs approach.

Students should demonstrate their ability to work in different groups effectively as well as respect different views. Each student has a different background so there must be flexibility and tolerance in coming together to solve the problems which is the team common goal. Working collaboratively requires each group member to take on shared responsibilities and appreciate the contributions of each group member. Gradually it will increase the profile of the students to be a confident learner.

Creativity in Problem-Solving

Misconceptions often occur when creativity is associated with intelligent students only or cannot be learned in school. Imagination and dare to dreams are the basis towards creativity possessed by all human beings. People from a variety of different backgrounds have adopt

creativity and innovation in the various fields in which they venture. Creativity and innovation can be developed in a learning environment that encourages students to ask no matter how foolish it is, open to new ideas without judging them, have the patience to listen to what is presented, have high confidence without rejecting any suggestions, willing to learn from mistakes and failures and be authentic as possible in the original work. Task complexity which is not routine and tends to be complex with no single answer encourage creative and innovation thinking will lead to efficiency in learning.

Educators have a responsibility to ensure that today's students are now ready to thrive in the era of digitalization and technology. The role of technology will support future learning as new initiatives emerged to pilot smart school to explore future classroom beyond the four walls. Online learning such as home-based learning already taken place with the use of gadgets and devices to support educators in facilitating effective learning. As with other skills, creativity and innovation skills can be developed in a consistent learning structure inbuilt in the curriculum content. Students engagement in different level of deep learning will expose them to creative thinking, in line with critical thinking in problem solving. Students' desire to collaborate with others can be enhanced and creative ideas that have gone through the thought process can be applied.

There are various techniques to think creatively using creative idea generation methods including design thinking, brainstorming, mind mapping, role playing, think in reverse and etc. Students should be able to evaluate their ideas to make improvements and improve their creative efforts. They must be open and responsive to various perspectives and take into account feedback from other group members. The thinking path is usually unknown in the initial stage as it involves exploration of ideas. Considering failure as an opportunity to learn and realize creativity and innovation is a long-term endeavor. Professional acceptance of failure to become a part of life-long learning journey

Conclusion

Singapore's considered human resources as an important asset to remain relevant in the competitive globalization. Thus, an effective education system is able to develop human capabilities optimally by equipping them with appropriate skills. In a world full of challenges

and uncertainties, it is necessary to have a workforce equipped with problem-solving skills that are able to solve the problems faced or provide solutions to situations that need to be solved.

Many new innovations will emerge in the future and the willingness to response to these challenges, so knowledge-based technology alongside with problem skills will be able to replace conventional learning for the new future workforce in the era of technology.

Problem solving is not just a mastery of skills to provide solutions but is an art of thinking. It revolves around the human brain that connects every question and information for the appreciation of this life with the various opportunities available for the benefit and well-being of human life.

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Customer Loyality Current Stereotypes and Challenges

Mu`ah, MM, M.Pd[1]

Introduction

The world is experiencing massive development in various sectors. The emergence of facilities that ease people seem to emphasize that there have been significant changes related to shifting fundamental activities in public space. Moreover, the intense competition in the industrial and business sectors to the dynamic transformation of economic movements are concrete evidence that the times are no longer dictated by expectations, but mathematical algorithmic maps and wild thoughts that can reach every need in life. As a result, this condition forces economic actors to compete in creating various innovative changes. For instance, businesses and consumers have made a significant movement through the use of digitized tools to make efficient transactions, disregarding the limitations of space and time.

Referring to this phenomenon, Indonesia, one of the countries with the largest population in the Southeast Asia, has its own challenges and demands in driving the economy of primary escalation. Various efforts have been accommodated by the central government, provincial and regional governments. In fact, approaches that involve various elements are also necessary, such as approaches which involve academics and cultural movements from mass organizations and non-governmental organizations in order to stimulate business actors to remain independent in their economic efforts. This means that economic movement is not only initiated from one door, but also other doors so that inclusiveness formed of the elaboration and support of various elements in the framework of economic empowerment can be controlled properly and appropriately.

Globalization has demanded that business competition no longer talks about the boundaries of the local market, but creates new

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stereotypes so that people dare to compete independently in the global market. The trend of the startup business through the popular mentions such as Unicorn and Decacorn as the spearhead of the rise of world economic competition seems to be a symbol that competition and new-style economic development are beginning to be oriented towards the role of cutting-edge technology that can facilitate human activities. This makes business actors from various lines start thinking about alternatives in the future by utilizing mentoring programs, trainings, and accurate strategies to result in new thinking patterns. This is to say that business actors are required not only to penetrate the market but also to create market faucets independently. It then becomes crucial to have a basic understanding regarding theoretical approaches as well as practical relevance in order to be adaptive to upcoming changes, especially in understanding the behavior patterns and characteristics of consumers and customers in accordance with the acceptable conditions and the type of business.

Current Customer Loyalty and Consumer Stereotypes

A customer is a buyer of products that have been produced or marketed, and purchases the product repeatedly (loyal). Meanwhile, by definition, Griffin states that customers are more directed to the context of "custom" in the company, namely making something into a habit thus practicing the habit. So it can be concluded that a customer is someone who buys, uses and makes purchases periodically in a certain phase or period of time. Customers are the most important element in the economy sustainability. Therefore, one of observable development of a business or business can be seen from the consistency of customers feeling that their needs are fulfilled by the goods or services through the business. This makes customer interest in the selected product is the most important point in carrying out economic activities. Creating satisfaction with customers is an absolute thing that business actors must do in order to gain trust.

Customer loyalty can also be influenced by several factors including attention, trust, protection and accumulative satisfaction. Attention is required, since it is the condition in which business people overcome various problems and satisfy expectations and needs of customers. Treated this way, customers will become more satisfied and loyal. In other words, the greater the attention provided to customers, the more

likely customers become loyal. Secondly, trust that usually arises from parties that have been in a relationship for a long time. If the trust is high, the relationship with the customer will be stronger. The third is protection. Providing protection is the obligation of business actors to make customers not worry about various possibilities that may occur. Finally, Accumulative Satisfaction, which is a total assessment of the various transactions carried out, so that the company can find out where customer satisfaction lies.

Business actors commonly regard customers as sources of variation in marketing processes, meaning that the more they know about customers, the better the quality of service provided. This will automatically also have an impact on customer loyalty. The use of various possibilities and opportunities to identify the characteristics of customer is an integral step to create an effective strategy as a benchmark in improving the quality of service in the business involved.

The exploration of various business models certainly creates a new climate with regards to current consumer trends. The new lifestyle seems to leave consumers with no choice but to perform activities more efficiently when making economic transactions. The presence of technology makes consumers more complacent by the conveniences, which then result in over-consumptive behavior. On the other hand, this is also an advantage for business actors to create new areas to satisfy consumer needs. Today's consumers, therefore, can be assumed as someone who purchases goods and services using facilities that exist around them. That said, basic needs are no longer limited to problems, but economic functions which have been transformed into a lifestyle.

Findings: East Java and Lamongan in *Local Coffee Shop* Business

The trend of millennial terms began to echo in various parts of Indonesia. This has resulted in an intense competition in the business sector to attract customers, especially millennial teenagers, by bringing in contemporary nuances into the products. One of these business trends is the *local coffee shop* business. Besides having a function as a stopover for simply drinking tea, coffee and snacks, the local coffee shop, seems to have been transformed into a place to gather, exchange ideas and expand the network and even serve as a communication space for entrepreneurs. These functions have made the coffee shop inseparable from their daily needs.

East Java is one of the provinces that where coffee shop businesses develop. The data uploaded by the Central Statistics Agency (BPS) in 2018 calculated that there are currently 1341 coffee shop businesses spread across various districts or cities in East Java. Surabaya as the provincial capital is noted as a district with the most significant increase, compared to other districts or cities. This can be said that that the lifestyle and economic strength of the people affect the high and low quantity of this coffee shop business.

Geographically, Lamongan Regency is one of the districts which is adjacent to Surabaya. This indirectly impacts the coffee shop business in the regency. With so much competition, it will increase the competitiveness of the local coffee shop business 'players'. Proper innovations are therefore needed to make business actors achieve the customer satisfaction, thus create a fair competition.

In his study entitled "The Role of Café Atmosphere and Product Quality in Shaping Consumer Trust and Loyalty to Increase the Competitiveness of Local Coffee Shop", the author concludes that the cafe atmosphere has a positive and significant effect on consumer trust and loyalty. Furthermore, product quality has a positive and significant effect on consumer trust and loyalty. Then, consumer confidence has a positive and significant effect on competitiveness and the atmosphere of the café also affects competitiveness. Finally, product quality also has a positive effect on competitiveness.

Based on these findings, in order to increase the competitiveness of a coffee shop two things can be used to attract consumers, namely first, the quality of the product and secondly, the good atmosphere or condition in accordance with consumer expectations. This in turn can open up opportunities for business actors to attract new customers. The emergence of trust and loyalty from consumers are also of important variables to consider so that customers become more attracted to various things related to the business being run.

Conclusion: UMKM Go-International and Realistic Targets

In the midst of the economic crisis that occurred, the state should have begun to focus on facilitating business actors in the primary domain. Referring to the findings that have been above mentioned by the author which emphasizes product quality and atmosphere, the importance of trust and consumer loyalty can be used as a standard

in which Micro, Small and Medium Enterprises (MSMEs) can have an equal opportunity to create competition in a wider sector. That said, a stronger push is needed so that Micro, Small and Medium Enterprises (MSMEs) are able to compete and dare to grab customers in the global market constellation.

Seeing the increasingly open market opportunities, business actors are expected to receive maximum services and encouragement from various parties. This can motivate them to actively develop and keep up with the transformations of the times. Technological literacy and mastery of international languages as basic demands should be the government's top priorities so as to enable business people to surf anytime and anywhere to carry out various economic activities and transactions. Given this situation, it is not impossible for Micro, Small and Medium MSMEs as a small industry labeled Go-Public to achieve it, therefore a good effort to accommodate each problem is necessary.

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Problems in Indonesian Language Online Learning

Muhlis Fajar Wicaksana[1]

Introduction

Distance learning during the COVID-19 pandemic causes various problems, ranging from the students', teachers', and parents' limited facilities. There are at least 1,000-1,500 children (students in Surakarta) who do not have cellphones, and thus, are challenged with difficulties in accessing distance learning (*PJJ*) (Retnowati, 2020). Parents complain about a myriad of problems, and in fact, the Indonesian Child Protection Commission (KPAI) reported that it has received hundreds of parents' complaints from many regions in Indonesia. Many students grumble about the heavy assignments of their teachers or lecturers that have to be submitted with a tight deadline. On the other hand, tasks from other teachers await. Even though unexposed, teachers and lecturers are also challenged with the limited strategies to perform in front of their students when teaching online classes [25].

Today, online learning is the main option to protect students from unwanted possible impacts due to the outbreak of the COVID-19 (Ministry of Education and Culture Circular Letter Number 4 Year 2020 on Studying at Home). This learning model is a learning approach, in which the learning process is not implemented face-to-face in the classroom but through an online platform. In an emergency like this, e-learning can be used, since it is internet-based so that teachers and students do not need to come to class. Some of the e-learning platforms that are used for online learning activities are email, blogs, Wikipedia, portfolios, animations, video links to social networks, such as Facebook, Twitter, and Youtube, as well as Google Classroom, Edmodo, and others [16] & [18].

Learning the Indonesian language is also challenging for it cannot avoid various complex problems during this pandemic. The problems

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in implementing online distance learning range from learning materials, learning methods, evaluation systems, student readiness, to the equipment used for learning activities, whether by teachers or students. The active role of parents is another glitch in the realization of online learning. The study on online learning during the COVID-19 pandemic conducted [10] reported three types of obstacles that were most experienced by students during online lectures, which included limited internet data (21.5%), an unstable internet connection (23.4%) and piling-up assignments (30.6%). Referring to the results of this study, the obstacles experienced by students in doing assignments may have a greater percentage. This is because students do not complete their tasks on time and in order; and therefore, before completing previous tasks, new classwork is assigned. This condition requires a solution so that students can complete their duties well and on time.

Apart from students, teachers experience problems in teaching through online learning. The learning method and the evaluation system are the main challenges. Online learning requires teachers to be more creative to find the right formula for facilitating their students in learning and making them more comfortable to take part in learning activities, as well as applying a proper method that can encourage students to complete assignments punctually. These are teachers' homework that demands way outs. Teachers should not only carry out the learning and assessment in a perfunctory way. Teachers must apply creative learning and assessment systems because through several creative learning strategies, students will not feel bored in participating in class activities and material delivery will not be hampered [5], [11] &[13].

Another problem of online learning lies in the delivery of teaching materials. Some teaching materials particular subjects, such as mathematics, arts, and sports cannot be transferred well. Moreover, teachers do not have sufficient experience and knowledge of online learning systems, causing them to use repetitive and less innovative teaching methods and media [4]. In the context of Indonesian language learning, teachers commonly use textbooks that are already available. However, those textbooks are indeed designed for face-to-face classroom learning activities, instead of online learning activities. The materials provided by teachers in online learning are limited so that students inevitably have to look for additional material independently

[21] & [26]. Therefore, teachers, particularly those who teach the Indonesian language, are necessary to make innovations to compile teaching materials that are adapted to the current conditions of online learning.

Online learning affects parents since learning activities are carried out at home and this automatically gives additional tasks for them to accompany and monitor their children in learning. It is expected that parents can control the learning activities of their children at home. They are required to work together with teachers to motivate their children and succeed in learning activities. Parents with small children have to accompany their little ones when they are studying and communicate with them as a form of attention to their children [19]. However, the role of parents has not gone as expected. On the one hand, parents have to work, and on the other hand, they are required to help their children study. Their role becomes their main concern today.

Discussion

Indonesian language online learning is challenging for teachers, students, and parents. In direct face-to-face learning, teachers encounter some obstacles in delivering materials to students, one of which is caused by a limited understanding and implementation of how to communicate with students [6]. The problems are more serious in online learning during the COVID-19 pandemic today. In general, students from public and private schools argue that online learning is more interesting than direct learning in the classroom, although they can understand the materials and have been given opportunities to actively participate in learning processes [15]. Other problems in online learning are limited internet data, abundant assignments from teachers, limited internet literacy and unstable internet connection for students in rural areas [10]

Due to the pandemic, teachers and students have to shift the learning models and strategies from direct learning to online learning. Teachers are required to change the ways of communication with students during online learning, one of which is communicating through social media. As a solution, academic institutions have to develop media social platforms to continue the teaching and learning process, as well as facilitate the interaction among teachers and their students [24]. It was reported that increasing the focus on social media

as a tool for integrating scientific actions and learning activities can improve student GPAs, and result in a continuation of progress on the scientific journey with improved student retention [2]. In addition, projections of online learning for future teacher candidates have to consider the following aspects: a) strengthening the essence of prospective teachers; b) increasing insight of teachers and students on online learning literacy; c) creating a blended, online and face-to-face learning patterns in normal lectures; and d) compiling a pattern of causality with a business-driven by technology in class lectures [10]. The Office of Education and Culture (Disdikbud) of Sukoharjo added that efforts have been made to overcome the ineffectiveness of online learning by building teams of teachers who will be responsible for creating instructional videos [23].

Besides, students' perceptions of learning the Indonesian language are still low. The subject is considered uninteresting, unpleasant, wearisome, and boring [8]. It would be more exciting if teachers pay more attention to the various characteristics of their students. Also, educational institutions and teachers can create situations where students do not hesitate to use good and correct Indonesian as well as foreign languages. Indonesian language learning should take notice of children's language acquisition and learning since their language skills are more or less influenced by those factors. Based on the view of reconstruction, which is building language skills from the experiences and communicative methods, a person can have good language skills if the language is frequently used [9]. The success and failure of language-based learning are attributed to people's perceptions and attitudes [3] & [22].

In addition to students' poor perceptions of Indonesian language learning, another problem lies in the irrelevant learning evaluation instruments. In face-to-face learning, many Indonesian language teachers have shared about their problems in evaluating students, and this condition worsens in the current online learning. Face-to-face learning shows that: a) teachers do not check the instruments of assessment they are going to use, b) teachers rarely assess the learning process, c) teachers argue that the processing of evaluation results is too complex, and d) teachers have a poor motivation to review books on authentic assessment [14]. One of the problems in evaluating online learning is that students are not fully supervised during the learning

process. A poor internet connection and limited internet data due to high cost are the challenges in online learning [1].

In conducting online assessments, teachers need to pay attention to the objectives, timing, results, and use of the results of the assessment to determine the type of assessment that best suits the needs. Teachers are required to plan the assessment by pre-assessing student skills and knowledge before giving a lesson to students [17]. Deciding adequate and appropriate assessments is a constant challenge for teachers [20]. This is what a teacher must consider before choosing and applying the assessment techniques that will be used [14]. On the other hand, teachers should not burden students with too many and demanding school assignments. It is suggested that assignments are more directed at mastering soft skills, such as helping parents.

Conclusion

In dealing with various problems of online learning of the Indonesian language, universities that will produce teacher candidates should strengthen the core of student-teacher candidates. Competencies taught and trained in particular courses aiming at supporting online learning activities should be increased in terms of capacity. Also, teachers are expected to always build a culture of online learning literacy through strengthening information technology (IT) according to their respective competencies. Strengthening information technology is intended for improving Indonesian language teachers' ability to develop methods, media, and evaluation instruments that are attractive to their students in online learning. If the methods, media, and evaluation instruments used can attract students' interest to learn the Indonesian language, negative perceptions about this subject (unattractive, boring, and monotonous) will gradually decrease or even disappear. In short, reinforcement is significant to be initiated from the university.

Moreover, teachers also have some difficulties in preparing and applying evaluation instruments in online learning, some of which are the evaluation techniques and means of evaluation. Minister of Education and Culture has suggested that teachers should apply an evaluation method that focuses on life skills or soft skills.

Life skills can be in the form of students' daily activities with the family at home. Therefore, parents should always appreciate their children by encouraging them to increase their life skills. Children

should be continuously involved in daily activities. Also, measuring instruments of assessment should be able to accommodate the role of parents, meaning that the instruments for assessment related to life skills are prepared and implemented together with parents. These are necessary to ensure that all targets can be achieved properly.

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Community Empowerment Model through Agricultural Product Processing Innovations

Mulki Siregar[1] and Raihan[2]

Introduction

The community has a huge role in sustainable agricultural development. Through innovation in the processing of agricultural products, community empowerment is a process to encourage farmers to use the land and the environment sustainably. Economically, socially and ecologically sustainable. Agricultural land processing is a "man-made environment" to increase farmers' income and increase per capita income in the agricultural area. Endah [1] stated that community empowerment is essentially raising the potential that exists in an individual or group with encouragement, providing awareness of the potential of the person or group with the aim of empowerment leading to a state of achieving what it wants to direct community changes towards powerful and able to improve the socio-economic life of the community. Through increased community empowerment, it is hoped that farmers will have the ability to optimally utilize their natural resources and be fully involved in the production, economic, social, and ecological activities.

The agricultural sector is a significant source of livelihood for rural communities. The agricultural sector provides enormous employment opportunities, especially during the post-harvest time. Processing of agricultural products requires more advanced innovation to get greater added value. Therefore, community empowerment through innovation in the processing of agricultural products is something that is needed. Community empowerment concerns aspects of farming and agricultural economy and is also closely related to other aspects. Mubyarto and Santosa in Roring, et al. [2] stated that agriculture is not only an economic activity to generate income for farmers. More

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than that, agriculture is a "way of life" for most farmers in Indonesia. Therefore, agricultural communities' empowerment pays attention to economic aspects and needs to pay attention to farmers' social and cultural aspects.

Momongan, et al. [3] stated that agricultural development is largely determined by the quality and quantity of human resources in it. If human resources are highly motivated, creative, and capable of developing innovation, then agricultural development can certainly be better. Therefore, it is necessary to empower farmers to increase human resources in the agricultural sector. Empowerment of agricultural communities can be done by involving farmers in village planning, developing village institutions, involving farmers in determining village facilities and infrastructure, providing broad access to information, providing technology support according to farmers' needs - especially for farmers who process marginal lands.

Pusut, et al. [4] stated that community empowerment-based development is an effort to improve community welfare. One of the development goals is to achieve economic growth. In the 2010-2014, the Ministry of Agriculture of the Republic of Indonesia has devised a strategy to reposition agriculture as a motor of national development. The main targets of agricultural development are: (1) achieving sustainable self-sufficiency and self-sufficiency, (2) increasing food diversification, (3) increasing added value, competitiveness, and exports, and (4) increasing the welfare of farmers. Attempting to achieve agricultural development's main target is not easy because it is faced with complex problems and challenges in agricultural development. To deal with these conditions, the Ministry of Agriculture of the Republic of Indonesia. Implementing Land Revitalization, Seed and Seedling Revitalization, Infrastructure and Facilities Revitalization, Human Resource Revitalization, Farmers Financing Revitalization, Agricultural Institutional Revitalization, and Technology and Downstream Industry Revitalization. The key factor for the success of agricultural revitalization is implementing an integrated program from upstream to downstream with the support of reliable technology, management and human resources, and accurate data and information.

The description above shows that to empower agricultural communities, a complementary model of cooperation between farmers, government, and the industry is needed in utilizing existing agricultural resources.

Discussion

Research on the empowerment of agricultural communities has been carried out, including Liwu and Sasmito [5], which states that the village government has a big role in empowering farmer groups. Liwu and Sasmito also stated that the village government's strategy to increase farmer groups' capacity is to strengthen existing potentials and protect farmer groups from various conflicts. Another research conducted by Nurhidayah [6] states that community economic empowerment based on integrated agriculture can increase community income, create food sovereignty, and create jobs in rural areas.

Seeing the existing conditions and paying attention to the various problems in the agricultural community, the community empowerment model developed is an innovation in the processing of agricultural products following existing technology. This community empowerment goes through 4 stages. Each stage is described as follows:

Stage 1

The first stage is to determine the superior commodities that can be developed in an agricultural area. The determination of this superior commodity must of course, be under the conditions of the agricultural area. The superior commodities to be developed must pay attention to cropping patterns, farm management, production yields, post-harvest handling, and distribution and marketing. Furthermore, identifying the potentials that can be developed on the predetermined superior commodities. Determination of the potential to be developed on existing superior commodities must pay attention to economic, social and cultural aspects. This is very important to convince various parties that the selected superior commodities are agricultural commodities that are most suitable to be developed and most suitable to farmers' conditions in the agricultural area. In addition, it is also to convince various parties that the selected superior commodities have economic potential in the processing of their final products. This stage 1 flow chart is shown in Figure 1 below:

Figure 1.Stage 1 Flowchart.

Stage 2

The second stage is to disseminate the research results in stage 1 to the government, industry, and farming communities. Further experiments or participatory implementation were carried out involving farmers and farmer groups. This participatory implementation also involves the government and industry to obtain input on innovation and processing technology for predetermined superior commodities. Of course, the innovation and technology that will be applied must pay attention to production capacity and its sustainability. What is very important at this stage is research conducted by universities or other research institutions. This study's results are the first steps in determining superior commodities in terms of processing and added value. With processing innovations that have high added value, it is hoped that farmers' income will increase, which will impact the economy, social, and culture of the farmer. There is also a need for commitment from various parties in supporting farming communities to increase their production sustainably. This stage 2 flow chart is shown in Figure 2 below:
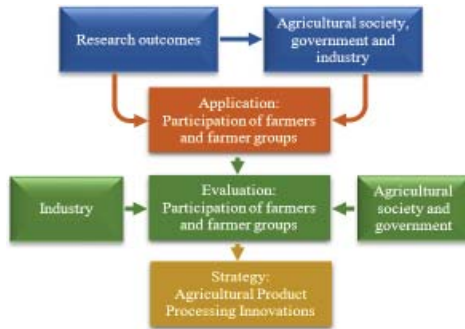
Figure 2.Stage 2 Flowchart.

Stage 3

Stage 3 is the development stage. Agricultural products that are superior commodities are processed by applying agricultural product processing innovations with greater added value. Universities or research institutions play a significant role at this stage. Universities or research institutes will assist in implementing these agricultural product processing innovations. Furthermore, universities will help farmers legalize trademarks, production permits, distribution permits, halal permits, and other permits related to the agricultural product processing industry. The tertiary institution will also carry out assistance and training for the initial marketing of the products produced. This cycle will continue to be implemented to create sustainable agricultural product processing innovations. This stage 3 flow chart is shown in Figure 3 below:
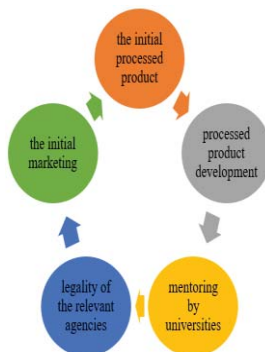
Figure 3. Stage 3 Flowchart.

Stage 4

Stage 4 is the sustainability stage. At this stage, a strategy is determined for the sustainable development of innovation in the processing of agricultural products, which are the region's leading commodities. Processed products that have been marketed must always be monitored and evaluated for quality and quantity. Based on the monitoring and evaluation, the production capacity is determined to maintain its sustainability. At this stage, other leading commodities in the agricultural area are also identified. This stage 4 flow chart is shown in Figure 4 below:

Figure 4. Stage 4 Flowchart.

Conclusion

This community empowerment model through innovation in processing agricultural products is highly dependent on cooperation between the farming community, universities, government, and industry. From this model, it is expected that the leading commodities for an agricultural area will be identified. Besides, from this model, it is expected that there will be product processing innovations.

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An Implementation of Islamic Education in Central Mindanao, Philippines: A Case Study at Cotabato State University

Nhelbourne K. Mohammad[1], Tobroni[1],Ishomuddin[1]

Introduction

"Islamic education" is a term that has been used as one such means of communication. In particular, the word has often served as an adjective in everyday speech that neatly divides familiar terms from normality and transforms them into unreachable, alien concepts [1,2]. Muslims use the term to refer to Islamic teachings or institutions. Still, both Muslims and non-Muslims often use the term "Islamic" to elevate cultural expressions to the status of normative or consummate institutions or practices [3]. Among public commentators, the poorly nuanced usage of the word Islamic also fails to differentiate between what relates explicitly to Islam and its teachings and its followers' behavior in the cultural or social sphere [4]. Thus, as used by both Muslims and others in public discourse, words used to denote Islam and Muslims lack specificity [5]

The Islamic educational system prescribes the incorporation of divine/religious knowledge and human/secular knowledge in the appreciation of this complementary role of education and religion in a Muslim society [6] . However, in the Philippines, this is not practiced because our public-school system only focuses on human understanding, while the Islamic (i.e., Madrasah) learning system focuses on the spiritual element. Since these two information systems are taught separately, the country's current educational system is not very successful in meeting Muslims' needs [7].

The educational system is exclusively dichotomized into spiritual and secular among the Bangsamoro-dominated areas in Mindanao [8]. In the Madrasah, the former is taught, while the latter is learned in

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public education institutions in the Philippines. Those who studied in the Madrasah are well versed in the Arabic language, as practiced, but they can not understand the English language, which is the medium of instruction used in public schools in the Philippines [8,9].

Since these two education systems are predominantly practiced, only secular system graduates are useful to society. Simultaneously, those from the Madrasah are either unemployed or underpaid, most of whom are working only in small privately operated Madaris (plural for Madrasah) [10]. As a result, in the Arabic schools, which are so degrading among us Muslims, only very few of the Muslim youth are interested in learning because the knowledge of the Qur'an is mandatory among all its believers [11]. Despite the considerable number of Bangsamoro (i.e., Muslim Filipinos) in this country, the system is not observed in the Philippines since it is a secular nation whose educational system is copied from the West. Being patterned from the European style, our public-school system emphasizes human knowledge, while the Islamic (i.e., Madrasah) learning system concentrates on the divine aspect. Since these two systems of knowledge are taught separately, the country's present educational system is not much effective in meeting the needs of the Muslims [8].

In addressing this educational challenge, the Philippine government has initiated various programs and policies sanctioned by the following laws, such as (i) the Letter of Instruction No. 1221 of 31 March 1982; (ii) the Letter of Instruction No. 17-A, (iii) the Muslim Mindanao Autonomy Act No. 14, (iv) the DepED Order No. 51 of 28 August 2004, (v) the DepED Order No. 40 of 19 May 2011, and (vi) the different provisions of the Peace Agreements between the Bangsamororebels and the Philippine government. However, despite these legal issuances and programs still, the Muslims' Islamic education in the Philippines has been hampered by financial, administrative, and structural problems [8].

Since the Bangsamoro Autonomous Region Muslim Mindanao areas where the quality of Islamic education condition is still low under the new development of the Ministry of Basic, Higher Technical Education (MBHTE) system hence, this study has been considered in response to these needs and shortcomings.

To address the discourse of these issues, we address the following questions in this study: 1) how do the curriculum implementation of the Islamic education program at Cotabato State University?, and 2) how does Islamic activity implement under the secular institution (e.g., Islamic festivals)?

Discussion

The researcher discussed the issues that have been found out by the researcher in chapter IV. The collected data were obtained through observation and interviews to answer the purpose of this study.

The researcher investigated the admission policy for a new undergraduate student or transferee from the interview responses mentioned above. The findings of the investigation that every applicant for admission shall undergo a thorough health examination. Because no person shall be admitted to every college and university found by the University Health Service to be with a dangerous, communicable, contagious, or infectious disease or physically unfit to take the courses in any college department university. Each course's entrance requirements shall be prescribed by the college faculty offering the course and approved by the University Council and the university president. Through UPCAT, Graduates of accredited high schools may be admitted as freshmen into the University of the Philippines on the following bases: (1) their performance in the UP College Admissions Test (UPCAT); (2) their weighted average in the first three years of high school and; (3) their choice of UP Campus and the quota set for specific course/colleges/units developed by the respective deans.

An instructional material or subject matters in this university are the teachers, textbooks, blackboard, and other reading materials (e.g., Islamic books as the references). These are written in Arabic with English translation. This pointed to the generally Islamic approaches in class in this college. This college's primary consideration is to provide Islamic education to the youths and enhance their learning and understanding of Islamic values and traditions. Many Islamic institutes wanted to teach English or Filipino as an added skill to their students. The most pressing concern and paramount considerations are on the Islamic teachings that enhance Filipino Islamic identity and preserve Islamic values that are fast becoming threatened by cultural invasion and globalization [12].

The annual activity here is based on the Muslim National Holidays. Filipino Muslim struggled in the Philippines is one of the solutions for the benefits of all Filipino Muslims. Because of this struggle, the Philippine Government recognized the Muslim holidays such as Eidul Fitr, Eidul Adha, and Isra' wa al-Mi'raj. The Muslim holidays here not just being recognizing by the government, but it has already Policy or Republic Act by the government like other Special Days and National Holidays celebration in the Philippines. An Act Rationalizing the Celebration of National Holidays amending for the purpose under Section 26, Chapter 7, Book 1 of Executive Order No. 292, as amended, and otherwise known as the Administrative Code of 1987.

Conclusions

The Islamic education program at Cotabato State University has been challenged with inadequate educational facilities and buildings. Limited classrooms have been built to accommodate very few students. The classrooms are not conducive for learning. The buildings are not supposed to be made for education. Besides, masjid institutions are poorly managed and administered. This is one of the factor cases encountered in implementing the Islamic education or institute of Islamic studies in the country. The government was not fully supportive of this program. Some prominent local families and political leaders give attention to any Islamic institution are for some instances, particularly during the election, only to get the sympathy of the Muslim voters.

The quality of education offered in the Islamic education program presently does not give much scope for the students to develop as modern human beings. The reason for the gradual decline of the program is the absence of qualified teachers who can contribute to the program's fast-growing improvement. Higher graduates of Islamic teachers were mostly teachers in Islamic schools in local communities. It is important to stress that science education coupled with modern technology will be used properly in Islamic education programs; it would make Islamic education meaningful. Islam is a comprehensive religion. Muslims can have plenty of relevant information and knowledge about modern education to adjust themselves to any challenges and confrontations.

Mostly the traditional madrasah education program in the Philippines is not recognized by the government. Islamic schools have been running under the supervision of the Muslim communities or

local leaders. The absence of national accreditation in all Madrasah educations in the Philippines is an obstacle for a higher degree. Most of the subjects in Madrasahs are religious subjects without further inclusion of the scientific subjects such as mathematics, economics, politics, sociology, English Language, and computer. Since the madrasah curriculum governs only religious subjects, the government cannot grant accreditation for those educational institutions that cannot reach the government standard requirements.

Through this multiculturalist view of social coexistence, Islamic education can be finally made an integral part of the national educational system. Consequently, this is the realization of the time-honored unity principle in diversity instead of unity inhomogeneity. We Filipinos can truly experience the real dividends of peaceful and harmonious coexistence. After all, education is man's liberation from the shackles of ignorance, suspicion, and discrimination to the benedictions of enlightenment, accommodation, and respect.

The Philippines' Islamic education system has played a significant role in spreading Islam in the country. It has developed Islamic the Filipino Muslim communities and shaped their Islamic cultural identity. It has strengthened their piety and Islamic awareness. The development of Islam in the Philippines through madrasah education has catered the Muslim minorities a sense of brotherhood and unity and enlightened their historical background. The Islamic education program at Cotabato State University plays a vital role which played a crucial role in Cotabato city because this university is a public institution. This institution is the only hope of the young Bangsamoro central education. Education is commonly essential, especially in the current situation of the minority Muslim in Southern Philippines, both secular and Islamic education.

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The Role of Marketing Mix in Increasing Customer Satisfaction Nine Coffee Bondowoso

Nurul Qomariah[1] and Afifah Putri Wulandari[2]

Introduction

Indonesia is the second coffee producing country after Brazil. The quality of Indonesian coffee is not inferior to the quality of coffee in neighboring countries. Coffee is one of the plantation commodities which has an important role in economic activity in Indonesia. Coffee is also one of Indonesia's export commodities which is quite important as a source of foreign exchange in addition to oil and gas. In addition to the increasingly open export opportunities, the domestic coffee market is still quite large. When viewed from its contribution, Indonesia's agricultural sector contributes 13.4% of GDP, with the agricultural sector being the second largest contributor after the manufacturing sector. Approximately 3.47% of the contribution of the agricultural sector came from the plantation sub-sector, in which coffee has a big share in it.
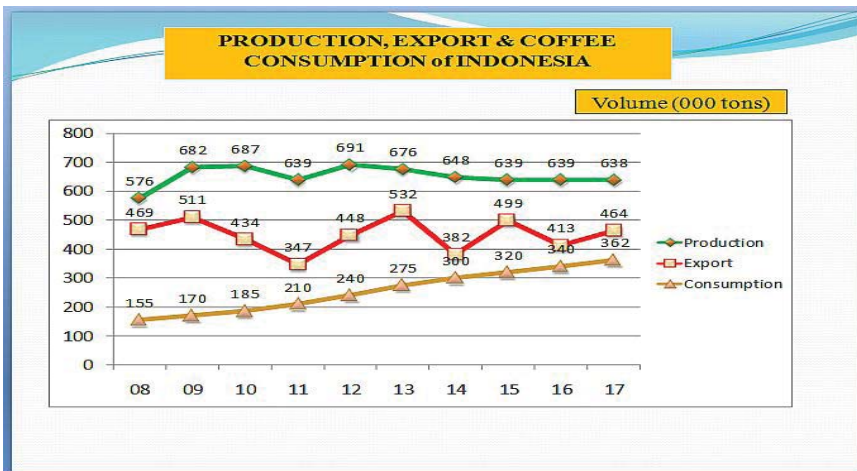

Figure 1. National Coffee Consumption (2008-2017)

[1] Universitas Muhammadiyah Jember
[2] Universitas Muhammadiyah Jember

Based on data from the Association of Indonesian Coffee Exporters during the period 2008-2017, the decline in coffee production, along with the decreasing production conditions, coffee exports also experienced a decline even though coffee consumption had increased (Figure 1) [1]. Currently, the coffee business industry sector plays an important role in the economic growth of people in Indonesia. Coffee is a type of beverage that is widely consumed by the public. [2] states that coffee is the main plantation export commodity in Indonesia, so it plays a very important role as a foreign exchange earner. The International Coffee Organization (ICO) states that the level of coffee consumption increases every year, it is estimated that the need for coffee powder in the world is around 8.77 million tons. The need for coffee continues to increase every year and acts as a foreign exchange earner, so that the increase in productivity and quality of coffee in the food industry must also be improved. Meanwhile, Indonesia's domestic coffee consumption also continues to increase. The 2019 Annual Data Consumption of Indonesian Coffee released by the Global Agricultural Information Network shows the projection of domestic consumption (Coffee Domestic Consumption) in 2019/2020 to reach 294,000 tons or an increase of around 13.9 percent compared to consumption in 2018/2019 which reached 258,000 tons [3].

At present, coffee can almost be said to be an addiction for the community. Especially for today's teenager lifestyle. The existence of coffee is no longer just attached to parents, but has also become a necessity for young people. This has made coffee shops mushrooming in various regions. Many young entrepreneurs have begun to look to the coffee processing industry, which is increasingly in existence. Of course this has a very positive impact on the use of local coffee production and absorption of labor in Indonesia. With all the wealth and quality of coffee that exists, and balanced with the efforts and strategies that have been made, it is hoped that coffee can continue to be the main export commodity of the plantation industry in Indonesia which will continue to increase its contribution to Indonesia's GDP every year. So it is hoped that more and more entrepreneurs will dare to spread their wings in this coffee processing industry sector. Now coffee is not only a mandatory drink for parents, but now the audience has grown from various professions, such as schoolchildren, students, workers, socialites, and other professions.

Along with the development, coffee production houses also seem to be competing to offer distinctive Indonesian coffee flavors from various regions in Indonesia. The increasing number of coffee shop businesses in several major urban areas in Indonesia, this could indicate that the presence of coffee in Indonesia is currently popular. This stems from the increase in the coffee processing industry in the archipelago. The increasing of the coffee industry, so that making your own coffee is part of the lifestyle of most people today. If Indonesian coffee succeeds in popularity overseas, of course Indonesia will be better known in the eyes of the world. Even now there are so many coffee makers, the types vary from manual brewing to automatic espresso makers. If we look at this trend, it will not end because now coffee is no longer a lifestyle, but "it seems" has become a necessity. Today's coffee is accompanied by the emergence of various flavors. In addition to variations of modified coffee, coffee originating from the archipelago itself has many flavors from Sabang to Merauke. In the coffee business, there are many attributes on which consumers choose coffee products, including aroma, taste, availability, price, packaging materials, packaging design, packaging size, storage age, label design, and so on. For this reason, each local specialty coffee production house company needs to implement a strategy to compete to maximize sales to attract consumers to feel satisfied with the products offered. The research results of TOFFIN, a company providing business solutions in the form of goods and services in the HOREKA industry (hotels, restaurants and cafes), in Indonesia, show that the number of coffee shops in Indonesia in August 2019 reached more than 2,950 outlets, an increase of almost three times compared to 2016. which is only about 1,000 [3]. The real number of coffee shops could be higher because the coffee shop census only includes networked outlets in big cities, not including modern and traditional independent coffee shops in various regions. Seeing the current condition that the number of coffee shops is increasing, it is necessary to have a strategy so that entrepreneurs in the cafe shop business sector continue to improve in increasing the number of visitors and visitor satisfaction with the marketing strategies of each business manager. Thus visitor satisfaction is an important thing for business people in the field of coffee shop provider services.

Customer satisfaction is a customer assessment of a product or service in terms of assessing whether the product or service has

met customer needs and expectations [4]. Customer satisfaction is the feeling of customers who have felt the services received exceed their expectations [5]. The comparison between expectations and performance will produce feelings of pleasure and happiness on the part of consumers or buyers. If the performance matches or even exceeds expectations, the customer will feel very happy or very satisfied. Conversely, if the performance is below expectations, the customer will feel disappointed or very dissatisfied. Customer satisfaction is the overall customer attitude shown by customers for goods or services after they acquire and use them [6]. There are many ways that service businesses do to increase customer satisfaction. One way to increase customer satisfaction is by implementing a marketing strategy in the form of a marketing mix.

Marketing mix is a tool that companies use to achieve marketing targets in the market. For this reason, the right marketing strategy is needed in order to make the company survive and thrive in the midst of any kind of business competition. Within the marketing scope there is a marketing mix. The marketing mix is a strategy to interfere with marketing activities, so that the maximum combination is sought so as to produce satisfactory results [7]. Marketing mix consists of four components or what is called the 4Ps, namely product, price, place, promotion.

Products are everything that a manufacturer can offer to be noticed, requested, sought, purchased, used, or consumed by the market as a fulfillment of the needs or desires of the relevant market [8]. Products include more than just tangible items [9]. In a broad sense, products include physical objects, services, events, people, places, organizations, the idea or mix of these entities [6]. Products are a key element in the overall market offering, marketing mix planning begins with formulating offers that provide value for target customers [10]. Products are the results of the company that can be offered to the market for consumption and are a tool for a company to achieve the goals of the company [11]. A product must have advantages over other products in terms of quality, design, shape, packaging, service, warranty and taste in order to attract consumers to try and buy the product [12].

Price is the only element of the marketing mix that provides income or income for the company compared to other elements of the

marketing mix [5]. Price can be interpreted as the value of goods that is determined or equivalent to money. Price is also referred to as the amount of money paid for a product or service, at a certain time and in a particular market. Price is one element of the marketing mix that requires careful consideration with several strategic dimensions of price [13].

Promotion is one component of the marketing mix which is a determining factor for the success of a marketing program. However good a product is, if consumers have never heard of it and are not sure that it will be of use to them, then they will never buy it. [14] explains that sales promotion becomes a core ingredient in a marketing campaign, consisting of a collection of incentive tools, mostly short-term designed to stimulate purchases.

Location or place often determines the success of a company, because location is closely related to a company's potential market. In addition, location also affects strategic dimensions such as flexibility, competitive positioning, and focus. The flexibility of a location is a measure of the extent to which a company can react to changes in the economic situation. [7] states that location is a strategy that determines where and how someone will sell a particular product to buyers or the public. The most important thing in this strategy is to determine the location, distributor or outlet where consumers can see and buy the goods offered by service providers or products.

To increase customer satisfaction, it is often associated with a marketing mix strategy. Many studies have linked the marketing mix to customer satisfaction. [15] conducted a research entitled "The Effect of Marketing Mix (7Ps ') on Tourists' Satisfaction: A Study on Cumilla" which resulted in that five out of seven marketing mix elements were positively related to tourist's satisfaction but the promotional activities and tourism process of Cumilla were not satisfactory to the tourist's. So some recommendations have been given for future improvement and to position this place in the heart of tourist's destination. [16] in their research entitled "The Effect Of The Sharia Marketing Mix On Tourist Satisfaction After Earthquake In North Lombok Regency" states that the dimensions of the marketing mix ie place and physical evidence (infrastructure) affect tourist satisfaction. [17] conducted a research entitled "The Effect Of Marketing Mix On Consumer Satisfaction And Loyalty For Indonesian Brand Salad Dressing XYZ" which results are that the marketing mix has a significant effect on

consumer satisfaction is product, price, and place. Promotion has no significant effect on consumer satisfaction. [18] in his research entitled "The Effect of Marketing Mix to Increase the Satisfaction of Magister Magister Students in Padang State University" states that the product has no significant effect to the satisfaction, the location has no significant effect on. the satisfaction, the promotion has a significant effect on the satisfaction. [19] in their research entitled "Effect of Internal Green Marketing Mix Elements on Customers' Satisfaction in Jordan: Mu'tah University Students" states that there are seven supported hypotheses related to green product, green price, green, place, green promotion, green provided information, green process and green people, respectively. [20] conducted a research entitled "The Effect Of Marketing Mix Toward Satisfaction And Loyalty Of Patient In The Public Hospital Of Dr. Fauziah Bireuen Of Aceh Province Of The Indonesia ". The research was conducted at the dr. Fauziyah Biruen Aceh with 110 respondents whose results stated that this research model has a good suitability because all of the hypothesis can be proven. It concluded that the process, people and physical evidence positively and significantly influence on the satisfaction.

Nine coffee is one of the MSMEs engaged in selling coffee, which is also the largest entrepreneur in Bondowoso. This business grew from a home industry which finally developed until now and is able to compete with other similar businesses. To develop the coffee business, which is the field, all kinds of strategies are used in order to compete with others. Bondowoso is one of the coffee-producing districts so that the coffee business grows like mushrooms in the rainy season. Based on Nine Coffee sales data until the end of June 2020, it can be seen that Nine Coffee sales have experienced sales fluctuations. In June, sales revenue experienced an increase in coffee sales due to Nine Coffee participating in the Jakarta Fair event. Nine Coffee sells coffee with 3 types of coffee typical of Bondowoso City with different prices depending on the type and packaging of the coffee as well as the product profile (Ground & Roasted bean) sold by Nine Coffee. Bondowoso Regency is a coffee producer, so many business people are doing business in the field of selling various types of coffee. Several coffee production houses that are competitors to Nine Coffee Bondowoso such as Becoffe, Dako Julie, Mat Coffee. Based on the explanation in the background and also the theory of marketing mix and customer

satisfaction as well as previous research that has been done by several researchers, the formulation of the problem in this study is how to increase customer satisfaction based on the marketing mix at Nine Coffee Bondowoso. Meanwhile, the purpose of this study is to analyze and determine the effects of the marketing mix consisting of product, price, place and promotion on customer satisfaction at Nine Coffee Bondowoso. The population of this study were consumers who visited and bought coffee at Nine Coffee during the period from January to June 2019, totaling around 1.7.95 visitors. The sampling technique in this study uses nonprobability sampling technique, which is a sampling technique in which not all sample members are given the opportunity to be selected as sample members [21]. The number of samples is determined by the Slovin formula and it is known that the number is 95 respondents. Reliability test and validity test were used to test the measuring instrument in the form of a questionnaire. To determine the effect of independent variables on the dependent variable, multiple linear analysis is used [22].

Discusion

Respondent Data Description

In this study, the respondent's age, gender, and the respondent's last education were used as descriptions of the respondent's data. Based on the age of the respondents, the results of the analysis of the respondents' descriptions showed that there were 57 respondents aged 20-30 years (60%), 21 people aged 31-40 (22%), 13 respondents aged 41-50 (14%), respondents aged 51-60 years are 4 people (4%). Based on the gender of the respondents, the results showed that there were 91 male respondents (96%) and 4 female respondents (4%). Based on the education owned by the respondent, the results of the study showed that respondents with primary school education amounted to 3 people (3%), respondents with junior high school education were 19 people (20%), respondents with high school education were 42 people (44%), and respondents with high school education were 42 people (44%). S1 education amounted to 31 people (1%).

Validity test

The validity test is a test to determine the validity of the data obtained from questionnaires [23].The results of the data validity test are presented in Table 1.

Table 1. Validity Test Results

Variable	Item	r-table	r-count	Sig.	Information
Product	$X1_1$	0,1698	0,648	0,000	Valid
	$X1_2$	0,1698	0,716	0,000	Valid
	$X1_3$	0,1698	0,763	0,000	Valid
	$X1_4$	0,1698	0,746	0,000	Valid
Price	$X2_1$	0,1698	0,675	0,000	Valid
	$X2_2$	0,1698	0,690	0,000	Valid
	$X2_3$	0,1698	0,733	0,000	Valid
Promotion	$X3_1$	0,1698	0,786	0,000	Valid
	$X3_2$	0,1698	0,640	0,000	Valid
	$X3_3$	0,1698	0,468	0,000	Valid
	$X3_4$	0,1698	0,546	0,000	Valid
Place	$X4_1$	0,1698	0,723	0,000	Valid
	$X4_2$	0,1698	0,657	0,000	Valid
	$X4_3$	0,1698	0,546	0,000	Valid
	$X4_4$	0,1698	0,439	0,000	Valid
Satisfaction	Y1	0,1698	0,719	0,000	Valid
	Y2	0,1698	0,773	0,000	Valid
	Y3	0,1698	0,705	0,000	Valid
	Y4	0,1698	0,512	0,000	Valid

Source: Primary Data Processed 2020

Based on the table. 1. that all indicators are declared valid because the level of significance of each indicator of each variable has a value below 0.05. This is in accordance with the statement (Sugiyono, 2013) that a variable is said to be valid, if the variable provides a significant value of approximately 0.05.

Reliability Test

Reliability test is a tool for measuring a questionnaire which is an indicator of a variable or construct. A questionnaire is said to be reliable if a person's answer to a question is consistent or stable over time [21].The results of the data reliability test are presented in Table 2. Based on table 2, it can be seen that all variables are declared reliable because all variables have an Alpha coefficient above 0.60. This means that each variable concept is suitable for use as a measuring tool. This

is in accordance with the statement [24] that a construct or variable is said to be reliable if it provides a value (α) of 0.60.

Table 2. Reliability Test Results

Variable	Cronbach Alpha	Reliability	Information
Product (X1)	0,60	0,650	Reliable
Price (X2)	0,60	0,801	Reliable
Promotion (X3)	0,60	0,680	Reliable
Place (X4)	0,60	0,662	Reliable
Satisfaction (Y)	0,60	0,768	Reliable

Source: Primary Data Processed 2020

Multiple Linear Regression Test

Multiple linear regression to determine the effect of independent variables on the dependent variable. The results of statistical calculations related to multiple linear regression analysis are presented in Table 3.

Table 3. Multiple Linear Regression Test Results

Model	Unstandardized Coefficient		Standardized Coefficient	t-count	Sig
	B	Std. Error	Beta		
(Constant)	6,630	2,214		2,995	0,004
Product	0,158	0,093	0,182	1,688	0,095
Price	0,210	0,106	0,193	1,981	0,051
Promotion	0,203	0,100	0,226	2,027	0,046
Place	0,132	0,112	0,138	1,181	0,241

Source: Primary Data Processed 2020

Based on table 3, it can be developed using a multiple linear regression equation model: Customer satisfaction = α + $\beta1$ product + $\beta2$ price + $\beta3$ promotion + $\beta4$ place if the value in table 3 is substituted, the following values will be obtained: Customer satisfaction (Y) = 6,630 + 0.182 X1 + 0.193 X2 + 0.226 X3 + 0.138 X4 + e.

The Effect of Product on Customer Satisfaction

The results showed that the coefficient value for the product variable was 0.158 with a significance level of 0.095, which was below the required significance level of 0.10. Thus the hypothesis which states that the product has an effect on customer satisfaction is accepted. From the calculation, it can be concluded that the product has an effect on customer satisfaction, Nine Coffee Bondowoso. Quality products will provide satisfaction to customers. These results are supported by several previous studies conducted by: [25], [17], [18], [20], [26].

The Effect of Price on Customer Satisfaction

The results showed that the coefficient value for the price variable was 0.210 with a significance level of 0.051, which is below the required significance level of 0.10. Thus the hypothesis which states that price affects customer satisfaction is accepted. From the calculation, it can be concluded that the price has an effect on customer satisfaction of Nine Coffee Bondowoso. Prices that match the price sold will provide satisfaction to customers. These results are supported by several previous studies conducted by: [19], [16], [15], [27], [28], [29], [30], [31], [32], [33], [30], [34], [35], [36], [37].

The Effect of Promotion on Customer Satisfaction

The results showed that the coefficient value for the promotion variable was 0.203 with a significance level of 0.046, which is below the required significance level of 0.10. Thus the hypothesis which states that promotion has an effect on customer satisfaction is accepted. From the calculation, it can be concluded that promotion has an effect on customer satisfaction of Nine Coffee Bondowoso. Companies that always provide good information about the products they are going to sell will provide their own satisfaction for customers, because customers will know information about the goods or products they will buy. These results are supported by several previous studies conducted by: [38], [39], [40], [41], [42], [43], [44], [45], [46].

The Effect of Place on Customer Satisfaction

The results showed that the coefficient value for the place variable was 0.132 with a significance level of 0.241 which is below the required significance level of 0.10. Thus the hypothesis which states that place affects customer satisfaction is rejected. From the calculation, it can be concluded that the place has an effect on customer satisfaction of Nine Coffee Bondowoso. For customers, usually the place or location is important in providing customer satisfaction. In the case of Nine Coffee Bondowoso, it turns out that the place where coffee is sold has no effect on customer satisfaction. Research that has been done which also discusses the relationship between the marketing mix and customer satisfaction includes: [47], [25], [15].

Conclusion

Based on the results of the analysis of data testing from the discussions that have been carried out, it can be concluded several things related to the results of this study, namely that:

1. The products offered by Nine Coffee Bondowoso have an impact on customer satisfaction. Therefore, Nine Coffee Bondowoso must continue to maintain the quality of its products in order to keep giving decisions to its customers.

2. The price offered by Nine Coffe Bondowoso can provide satisfaction to customers. Thus, the price of Nine Coffee Bondowoso products is in accordance with the quality of the product being sold.

3. Promotions carried out by Nine Coffee Bondowoso can provide satisfaction to customers. Nine Coffee Bondowoso customers feel that information on their products through promotions can make customers feel satisfied because what is informed is in accordance with the existing reality.

4. The place where Nine Coffee Bondowoso products are sold has no effect on customer satisfaction. Nine Coffee customers do not mind the location where this coffee product is sold.

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The Role of Leadership and Entrepreneurship Mindset for Competitive Advantage in the Society 5.0 Era

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Introduction

In a situation where everything changes suddenly, such as what is happening right now, leaders must examine their competence in dealing with change in order to achieve optimal results. Great leaders tend to think differently than most people. In fact, those who take leadership roles do not think much before they act, even though thinking is a crucial skill and instrument for a leader. Great leaders adopt a mindset that is oriented towards development, excellence, success, and relentless and unshakable efforts in pursuit of goals [1]. Leaders with a growth mindset expect ideal partners who are able to see and help correct their mistakes, challenge them to become better individuals, and encourage them to learn new things [2]. Leaders with a growth mindset can create, inspire, prepare, and direct teams to consistently work effectively both individually and collectively in the most challenging conditions to pursue the shared goals.

Organizations need leaders who not only have a leadership mindset, but also an entrepreneurial mindset. An entrepreneurial mindset is indispensable for exploring opportunities and innovation, taking risks, and managing change and uncertainty. An entrepreneurship mindset involves ways of thinking that aim to identify and take advantage of new opportunities through flexibility, reactive, innovative, and change-oriented mindset [3, 4]. Every business leader must develop a leadership mindset and entrepreneurial mindset to win the competition and manage the organization in order to survive in a critical situation. Competitiveness can be realized through the application of a strategy to use weapons to face competitors [5]. When an organization can do something that cannot be done by a competing organization, or if the

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organization has something that is desired by a rival organization, then competitiveness can be created [6]. Competitive companies are able to design and implement value creation strategies that the competing companies/organizations cannot even think of.

This study sought to construct the role of a leadership mindset and an entrepreneurial mindset towards competitive advantage in the Society 5.0 era. The rational-empirical approach was applied in this study. The analysis was carried out by relying on data sourced from various literature references and the findings reported by past studies. The data analysis consisted of defining the problem, finding the solution, identifying the consequences of the alleged solution and testing the consequences, namely testing whether the problem definition fit the situation [7].

According to the previous explanations, the specific objective of this study was to construct a model of leadership and entrepreneurial mindsets and examine its effect on competitive advantage. Furthermore, this study explored whether leaders who have the ability to develop a leadership mindset and an entrepreneurial mindset could contribute to winning business competition in the society 5.0 era. This study is expected to produce a scientific knowledge construction about the leadership mindset and entrepreneurial mindset in business organizations, as well as map how business organizations can have a competitive advantage to compete in critical situations and come out as winners. Considering the importance of technology in business activities today, the characteristics of society 5.0 in the future entrepreneurial context need to be discussed. Besides the dominance of technology in business interactions, the human aspect will also be a key part of this discussion because Society 5.0 focuses on people. In an era when the business world is struggling in a difficult situation with an increasing level of competition, organizations need leaders who have an adaptable mindset and are familiar with technological developments so that the organizations can be pulled out from the difficulties.

Diacusion

Competitive Advantage

The new normal is characterized by four forces, namely: change, complexity, chaos, and contradiction [8]. Organizations that wish to thrive in such an environment must strategically exploit their current

competitive advantage. Conceptually, competitive advantage can be increased through the development of leadership capabilities [9], innovation [10, 11, 12,], and an entrepreneurial mindset [13, 14]. Competitive advantage can be realized through the application of strategy as a weapon against a competitor [5]. Competitive advantage is pinned on a company when the company can do everything a competing company cannot do or if the company has something that competitors want [6]. Competitive advantage is the performance that is relatively superior to other competitors in the same industry [15]. Meanwhile, Dess, et.al. [16] define competitive advantage as the resources and capabilities of a company that allows control of competitive forces in the industry. Competitive advantage can be sustainable if the firm has valuable, scarce, inimitable, and organized resources [17]. Business managers must evaluate and select strategies they think will make their business successful. A business becomes successful due to its competitive advantage relative to its competitors [18].

Society 5.0

Society 5.0 was first introduced by Japan in 2019, when the world was excited to talk about the industrial revolution 4.0. Society 5.0 is a human-centered society that is expected to balance economic progress with solving social problems through the integration of virtual and physical worlds. There is a fundamental difference between the industrial revolution and the stages of society in the world. The stages of society began when humans existed, while the industrial revolution began in the 18th century. Industry 4.0 and Society 5.0 came together, where industry 4.0 first emerged with a focus on the manufacturing industry while Society 5.0 was still a vision and focused on people [19]. In Society 5.0, the new value created through innovation will eliminate regional, age, gender and language gaps and enable the provision of service products that are well adapted to the diverse needs of individuals and groups.

In the society 5.0 blueprint designed by Nakashi and Kitano, it is stated that this program is designed for sustainable development goals by involving technologies such as: big data, IoT, artificial intelligent, robots, drones, sensors, 3D print, cloud, 5G, virtual reality and others [19]. Furthermore, Fukuyama argues that the goal of Society 5.0 is to create a society where people enjoy life to the fullest. Economic growth and technological development are intended for this purpose and not

for the prosperity of the few. Even though Society 5.0 originates from Japan, the framework and technology developed will contribute to solving the challenges of societies around the world. Based on the description of the characteristics of Society 5.0, the future business activities (entrepreneurial behavior) will rely more on technology. Producing, selling, buying, transporting/distributing and trading goods and services will involve the use of available technology tools. To win the competition, business in the future should be turned into e-business or e-commerce.

Leadership Mindset and Competitive Advantage

The realization of competitive advantage requires a leadership mindset capable of changing habits that hinder change. Khan and Anjum [9] have proven that leadership abilities have an impact on competitive advantage. According to Agbor [20], "leadership is the most important source of competitive advantage". Daniel Marcos [21] argues that a business company will grow and be successful if the company is led by a leader with a growth mindset. Leaders who adopt a growth mindset, which is oriented towards excellence, success and achieving goals, will not be deterred [1]. Leaders who are able to show an emotionally intelligent mindset can perform their duties and responsibilities well, thus impacting their employees. Leadership has always been strongly associated with strategies for securing competitive advantage [22] and is an essential part of an organization.

A leader is responsible for training, guiding and encouraging his staff to improve their skills. Most leaders struggle to find the right timing or method for doing so. However, self-development is another major motivator that employees need to be able to produce competitive performance. Leaders with a growth mindset will always be oriented towards staff development, while leaders with a fixed mindset are oriented towards personal glory. Leaders with a growth mindset want to maximize everyone's contribution over time, giving rise to a culture of growth that involves many people [23]. Organizations that are in an atmosphere of high competition need a leader who has a growth mindset in order to build commitment in completing work, analyzing conditions under pressure and anticipating problems.

Many organizations around the world spend large amounts of money on leadership development. However, the Brandon Hall

Group, a human capital research and analysis institute, surveyed 329 organizations and found that 75% of organizations rated leadership development programs as not very effective. Why don't companies get more from a leadership development program than they cost? The results of research by Gottfredson and Reina [24] show that this is because most leadership development efforts ignore the specific attribute that underlies the way leaders think, learn, and behave, namely the mindset. Furthermore, Gottfredson and Reina [24] explain that a mindset is the mental lens of leaders that determines what information should be obtained and used to understand and navigate the situations they face. In other words, mindsets drive what leaders do and why they do it. There are various concepts that have been elaborated on by experts/researchers about mindset. Subramaniam and Shankar [25] proposed three mindset models, namely a people-oriented mindset, a goal-oriented mindset and a learning-oriented mindset. Hussain and Joshi [26] proposed four types of mindset, namely emotional intelligence mindset, connection mindset, innovative mindset, and growth mindset. Meanwhile, Gottfredson and Reina [24] identified five mindsets which included a growth mindset, a learning mindset, a deliberation mindset, and a promotion mindset.

Anna Lucia Makay [27] in her study said that there has been a growing awareness in organizations saying that there is a direct correlation between the mindset of employees and their performance. In fact, there is increasing evidence that the development of a mindset has become a necessity in organizations not only at the leadership level but also among the employees. Under these conditions, the organization's ability to compete is thus supported by qualified human resources.

Enterpreneurship Mindset and Competitive Advantage

Besides a leadership mindset, the improvement of organizational performance also requires an entrepreneurial mindset. An entrepreneurial mindset is important for the sustainability of today's business. An entrepreneurial mindset enables an individual to explore opportunities and innovations, take risks, and manage change and uncertainty. An entrepreneurial mindset contains various elements such as making decisions, values, beliefs, and problem approaches [4]; recognizing opportunities, alertness, putting forward logic in developing work frameworks and choices [28]; taking responsibility, finding results

and value and creating a repertoire of thinking [29]. An entrepreneurial mindset is needed to deal with conditions of uncertainty through creativity, innovation, and taking opportunities [30]. According to Neneh [31], "the crucial components of an entrepreneurial mindset consist of creativity, motivation, and the tendency to take risks".

In Dalvi and Ahangaran [14] and Liu et al [32], it is explained that an entrepreneurial mindset has a positive effect on the company's competitive advantage. Similarly, Lee and Chu [13] found that an entrepreneurial mindset has a significant relationship with excellence. An entrepreneurial mindset also has a positive effect on productivity [33]. Entrepreneurial minded leaders will encourage business development. Entrepreneurial-minded leaders have a growth-oriented perspective that individuals should promote flexibility, creativity, innovation and continuous renewal [28].

In view of the dynamic development of technology that continues to transform, business leaders (entrepreneurial actors) need to have a good understanding of the technology offered in the Society 5.0 era. Business opportunities in the Society 5.0 era are very wide open so that they can be explored to win business competition in the future. Consumers will choose practical and affordable services to meet their daily needs by relying on available technology. In a situation like this, the presence of a leader who has a mindset that can adapt to change is eagerly awaited by business organizations so that they can develop and win the increasingly competitive competitions.

Conclusion

The results of this study contribute to leadership practices in three different ways. *First,* the results of this study add an insight into the leadership literature, especially regarding the various mindsets that can be adopted by the people who are currently in leadership and staff positions. The various existing literature has highlighted the importance of leaders in dealing with uncertainty and exploring their leadership style by maximizing cognitive abilities. However, the current study provides a different nuance on how the leader mindset can optimize competitive organizational advantage. *Second,* an entrepreneurial mindset is required to balance and equip a leadership mindset in order to win the competition. To deal with uncertainty and ambiguity, the dimensions in an entrepreneurial mindset must be explored. *Third,* the

Society 5.0 era offers new nuances in future business/entrepreneurial activities. The era of society is interesting because it is more oriented towards providing services to all levels of society by relying on available technology. This era also encourages the emergence of various new competitions in technology-based entrepreneurship behavior.

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The pattern of Water Resources Resilience in Coastal Areas Centered on Balance in Society 5.0

Retno Tri Nalarsih[1]

Introduction

The era of society 5.0 is the starting point for a paradigm shift in thinking and moving to take references Fukuyama, 2018 that defines the journey of society from the beginning, namely during the society 1.0 period where the community lived their life by hunting and living well together with nature. Developed into society 2.0, namely when the community lived the way of farming, here the agricultural period was formed, the formation of associations and the formation of integrated development carried out by the nation. Developing in the era of society 3.0, society began to rise in the industry, with work support equipment. The subsequent development of society 4.0 industrial society began to use data-based computer tools and technology to complete work, developed during the era of society 5.0 where the potential of technology, human degradation by robotics, and quality data became information in solving problems, which in turn creates a society that is centered on people in decision-making, to support economic and social development, so that people can enjoy a high quality of life that is fully active and comfortable and the beach area [1].

Mavrodieva, 2020 researched disasters, namely disaster handling that must be faced by the Japanese government where disasters continue to increase, have an impact on social and economic risks, together with private parties in the sense of non-governmental society in implementing the Society 5.0 concept by utilizing technological innovations owned by private parties, to achieve goals development. His research aims to get the concept of causes of disasters, creating policies on climate change that are integrated into sustainable strategies [2]. Likewise, what happens in Indonesia is known as the Maritime Continent where there are coastal resources that have problems that

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must be handled in an integrated manner; based on previous research, it is said that the rapid development of cities causes life to shift towards the coast, where the area often occurs erosion, abrasion, changes in ecology, in the economic sector, in the social sector accompanied by an increase in population, this has made the need for clean water to increase [3].

Intergovernmental Panel on Climate Change (IPCC) reports that the availability of fresh water in Asia, especially in significant watersheds, is projected to decline due to climate change and population growth and increased demand due to higher living standards, adversely affecting more than one billion people by 2050. Coastal areas, especially in densely populated delta areas, will be at the most significant risk due to increased flooding from the sea and rivers. Coastal areas also face the problem of seawater intrusion into the land. Freshwater supplies are running low because of the large amount of seawater that enters the ground. Seawater that pushes into the land is a problem for coastal communities dependent on their raw water from rivers for their daily needs, industry, fisheries, and agriculture. Even during the rainy season, water sources' quality decreases due to the abundance of water, but the water produced is milky white with a high content of lime and sediment. In the dry season, reduced river run-off affects reservoirs, which in turn has an impact on reduced groundwater supply. An increase in the evaporation rate will affect the water supply and contribute to agricultural land salinization[4].

The drought in Spain is a disaster every year due to the management of water resources that are not optimal and not integrated, resulting in an increased risk of drought in Spain. The steps taken in addressing this matter determine the framework through integrated climate change prediction and hydrological planning, determining a sensitivity system for the focus of water resources in the development and basic implementation of early adaptation in water resources management before drought conditions occur. (Challenges for the Integration of Water Resource and Drought-Risk Management in Spain). This study's results make an essential way to adopt that climate change in Indonesia needs to be considered for its impact on water resources management for drought prevention [5].

The decline in the average water quality in Langata Sub-County, Kenya, occurred in water sourced from the Langata sub-district drilled

water source, an area located south of Nairobi, Kenya's capital in East Africa, that indicated that water dryness resulted in a decrease in groundwater in the region. The results showed that the past drought resulted in a decrease in water quality in the present. The quality of groundwater in the area is substantially vulnerable to a decrease in any drought event. It is recommended that groundwater control in the form of monitoring must be carried out continuously to become clean water. This is very important to use as a reference for groundwater control in Sidoharjo Village [6]. The results of research by Nurmalia et al., 2019, show that there is a shortage of clean water in Sidoharjo Village, Tepu District, Gunungkidul Regency Yogyakarta, which takes water from the Bribin SPAM reservoir as a measure to equalize clean water; there has been a physical leak in the piping network and a small water supply resulting in water not flowing to the Village Sidoharjo [7]. Based on a survey that Sidoharjo Village already has clean water infrastructure in the form of reservoirs, intake pump houses, reservoirs, and pipelines, it is planned that water sources from the tapping of the PDAM network under the PAMSIMAS program, but until now, Sidoharjo Village still lacks clean water because the network is cut raw water supply has not met capacity needs.

Sidoharjo Village has 4 (four) beaches, one of which is Sadranan Beach; based on coastal geoecological characteristics that Sadranan Beach has a dangerous potential, namely cliff collapse, it is known that the 12-meter high cliff has occurred due to sea abrasion. This location has a fragile karst rock type when exposed to continuous wave exposure conditions, which causes weathering. Sadranan Beach has 2 (two) springs, which come from a cave adjacent to Slili Beach and the water source comes from drilling, both with fresh and clear conditions [8]. The location of the study is Sidoharjo Village, Tepus District. Geologically, climate and geography can be considered the same as Tepus District. Tepus Subdistrict has rainfall including 1725 mm/year, the topographic height of 0 to 25 m, geomorphology including thousand mountains, latosol, and red Mediterranean soil types, high gap aquifer hydrogeology with groundwater depth greater than 15 m, groundwater fluctuation types of karst groundwater, land use in the form of moor or gardens and empty land bushes, ecosystems including thousand mountains [9].

Sidoharjo Village is one of the villages located in Tepus District, with a land river system from Bribi where water flows to the southwest to Baron while the other water systems are from Ngobaran to Ngobaran Beach. There are 10 (ten) springs in the area, each of which has a Ngobaran water source debit of180 l / sec, Baron of 8,200 l / sec, Slili for 50 l / sec, and Sundak 200 l / sec [10]. Based on several literature reviews and survey results, this study aims to examine the conditions of Sidoharjo Village based on the problems of water resources on the coasts of Slili, Sadranan, Ngandong, and Sundak beaches, to policies, regulations, and laws currently in force in Indonesia, to produce a solution that is in line with the concept centered on Society 5.0.

Discussion

Sidoharjo Village, with an area of 1,604.29 Ha, has a percentage value of the village area to the district area of 15.29, based on the division of land functions, namely the area of open land in the form of moor and shrubs covering an area of ?? 5.44 Ha, type of dry land 1,428.54 Ha, 141.2 ha of built-up land, 29.02 ha unused. According to the type of irrigation, paddy land is in the form of a rainfed area of 5.44 hectares. The Village of Sidoharjo consists of 11 hamlets, 11 of which are divided into 11 Rukun Warga. The average number of people per hamlet is 581.90 and divided into 51 Neighborhood Associations, a population of 6,401 people, consisting of 1,910 heads of families and an average soul per head. Family of 4 people [11]. It can be concluded that the ratio of land availability in Sidoharjo Village is based on land use to the total area 1604.29 Ha so that the ratio to the total area is 0.339 bushes/moor, 89.045 to dry land, 8.8014 to built-up land, and 1.8089 to unused land, to make it more transparent over the area of Sidoharjo Village as shown in Figure 1.
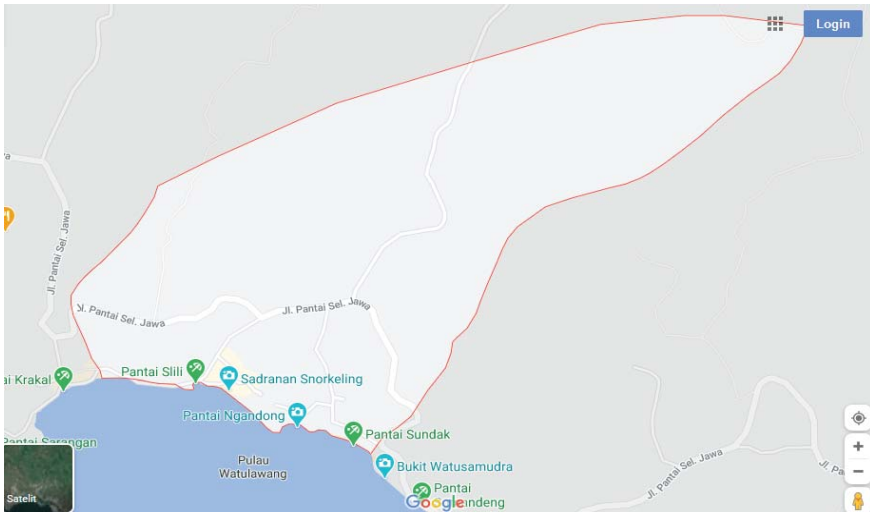
Figure 1. Boundaries of Sidoharjo Village

The tourism potential of Sidoharjo Village should be an independent village in water resistance because it has a source of clean underground water from a cave, predicting groundwater with a discharge of 50 l / sec. Figure 1 shows that in Sidoharjo Village, there are 4 (four) beaches, namely Slili Beach, Sadranan Beach, Ngandong Beach, and Sundak Beach. Based on information on Gunungkidul development, only Sundak Beach, a beach, is managed by the Regional Government [12].

Definition of Water Resources

Many definitions of Water Resources have the same assumption that refers to the Water Resources Law that Water Resources are water, water sources, and water resources contained therein. Water Resources Management is planning, implementing, monitoring, and evaluating the implementation of Water Resources Conservation, Utilization of Water Resources, and Control of Water Damaged Resources. At the next point, the Water Resources Management Pattern is a basic framework in planning, implementing, monitoring, evaluating the activities of Conservation of Water Resources, Utilization of Water Resources, and Control of Damaged Water Resources. Conservation of Water Resources is an effort to maintain the existence and sustainability of the condition, nature, and function of Water Resources so that they

are always available in sufficient quantity and quality to meet the needs of humans and other living creatures, both now and in the future [13]

Method of Compilation

This paper is compiled with a qualitative method aimed at producing a study in the form of descriptive data, which is a literature study, by tracing data and related information using reference books, articles, journals, literature sourced from online libraries, other people's research results, and good seminar results. National and international.

The qualitative method is then carried out by descriptive analysis, which describes a condition clearly and is easy to understand, objective, analytical, and critical. Regarding the problem of clean water in the location used, literature data that supports this phenomenon then reviewed;

a. Information for the Development of Gunung Kidul 2020

b. Constitution Number 1 of 2014 Concerning Management of Coastal Areas and Small Islands,

c. Presidential Regulation of the Republic of Indonesia Number 59 of 2017 concerning the Implementation of Achieving the Sustainable Development Goals,

d. Guidelines for the Preparation of the Sustainable Development Goals (SDGs) Action Plan 2017,

e. Water Resources Law Number I7 of 2019,

f. Government regulations Number 32 of 2019 About the Marine Spatial Plan,

g. Presidential Regulation of the Republic of Indonesia Number 18 of 2020 National Medium-Term Development Plan 2020-2024.

Based on the laws and regulations used, only every paragraph or article related to water resources will be taken, especially water resources related to coastal areas. So it can be concluded that this paper aims to analyze the relationship between each rule and legislation with society 0.5. The following is discussion and analysis;X Based on the steps to achieve the development of Gunungkidul Regency, it has set several missions, one of which is the fourth mission, which is to improve adequate infrastructure to drive a strong economy based on regional potential. with the efforts of the Regional Government in developing inter-regional connectivity through improving conditions provision of

basic service infrastructure in the form of clean water, irrigation and even sanitation [12]

1. Based on the steps to achieve the development of Gunungkidul Regency, it has set several missions, one of which is the fourth mission: to improve adequate infrastructure to drive a strong economy based on regional potential. with the efforts of the Regional Government in building inter-regional connectivity by improving the conditions for providing necessary service infrastructure in the form of clean water, irrigation and equitable sanitation [12].

    Analysis of Society 5.0: related to drought conditions that often occur in Sidoharjo Village, infrastructure improvement so that the economy increases, one of which is an increase in water resources, it is known that Sidohrjo Village has water sources that the land is 50lt / sec, that means it must be taken into account the water needs of the population. And non-residents of the current water availability. The availability of this infrastructure directly encourages economic growth as expected. This achievement cannot only rely on the local government. It must still involve the surrounding community and local governments, who work together based on data information to build applications for using big data and the Internet of things (IoT).

2. Constitution Number 1 of 2014 Concerning Management of Coastal Areas and Small Islands, Management of the Coastal Zone and Small Island Pupau is coordinating planning, utilization, supervision and control of coastal resources and small islands carried out by the government and local governments, between sectors, between land and sea ecosystems, and between science and management for improving people's welfare. Continued in Article 26A paragraph 4 Letter b, point c, it is said that fishermen and fish breeders' access to fisheries activities, including access to drinking water or clean water [14]. **Analysis of Society 5.0**: Sidoharjo Village is included in the Coastal area which is currently experiencing a lack of water resources; it should be included in the priority agenda of the Regional Government, which then becomes the priority agenda of the Central Government, in implementation there needs to be coordination between the Community, PDAM, District / City Government, Academics. Then the utilization is managed by Karangtaruna in the community structure involving academics for the application of using big data and Internet of things (IoT), supervision is carried

out by Village officials based on a data dashboard and control by the District based on an integrated dashboard, as reports by the District using the dashboard to the Regency / City Government, so that a synergistic performance is formed where policy is centered by the community and for the community. The fulfillment of clean water supports all aspects of tourism, both in services for clean water for residents and non-residents or commercially; this directly spurs the coastal area's economic improvement so that the concept of society 5.0 is realized.

3. Presidential Regulation of the Republic of Indonesia Number 59 of 2017 concerning the Implementation of Achieving the Sustainable Development Goals, Guidelines for the Preparation of the Sustainable Development Goals (SDGs) Action Plan 2017, in Annex VI It said, "The Global Goal is to ensure the availability and sustainable management of clean water and sanitation for all. The Global Goal by 2030 is to achieve universal and equitable access to safe and affordable drinking water for all. The National Goal of RPJMN 2015-2019 in 1.2 is to increase capacity raw water infrastructure to serve households, cities, and industry in 2019 to 118.6 m3 / s (2015: 51.44 m3 / s) and the supply of raw water for 60 islands " [15]. **Analysis of Society 5.0** The next step is the task of the Regional Government to propose to the Central Government that the priority of increasing the capacity of raw water infrastructure in Sidoharjo Village is the main program, managed optimally in cooperation between the community, the local PDAM, and the Regional / City Government. The problem of clean water in Sidoharjo Village should become a global goal of achieving sustainable development goals because it is a 2019 program. The global Goal of development utilizes integrated and comprehensive management to realize the guarantee of raw water or clean water for Sidoharjo Village people, ensuring that the discharge of water from underground water sources is stable 50 l / sec. This sustainability is developing into the sanitation aspect of the area, even though it is a priority for tourism areas, but is slowly being carried out to cover Sidoharjo Village. Realizing the Global target by 2030 in achieving universal and equitable access must go through *big data*. The Internet of things (IoT), a dashboard is formed based on a map of the raw water plan to clean water worthy of being said drinking water by the

community. For the community, the final target of this solution is the independence of the Village in stabilizing clean drinking water.

4. Sources of study The Water Resources Act states that conservation "Water Resources are implemented in springs, rivers, lakes, reservoirs, swamps, groundwater recharge areas, groundwater basins, water catchment areas, nature reserve areas, nature conservation areas, forest areas, and coastal areas. Listed in marine Spatial Planning is the allocation of Marine space in Water Areas into its main function along with directions for its utilization; in one of the paragraphs it is mentioned about Conservation Areas, further clarified in article 31 that Conservation Areas are established to protect the preservation of Marine, Coastal and Small Island ecosystems and maritime cultural customs that in the face of the imbalance between the availability of water which tends to decrease and the need for water that is increasing, water resources need to be managed with due regard to social, environmental and economic functions in harmony to create synergy and integration between regions, between sectors and between generations to meet the needs of the people water" [13]. To facilitate the mapping of water distribution, the road network's potential must be seen, as shown in Figure 2.
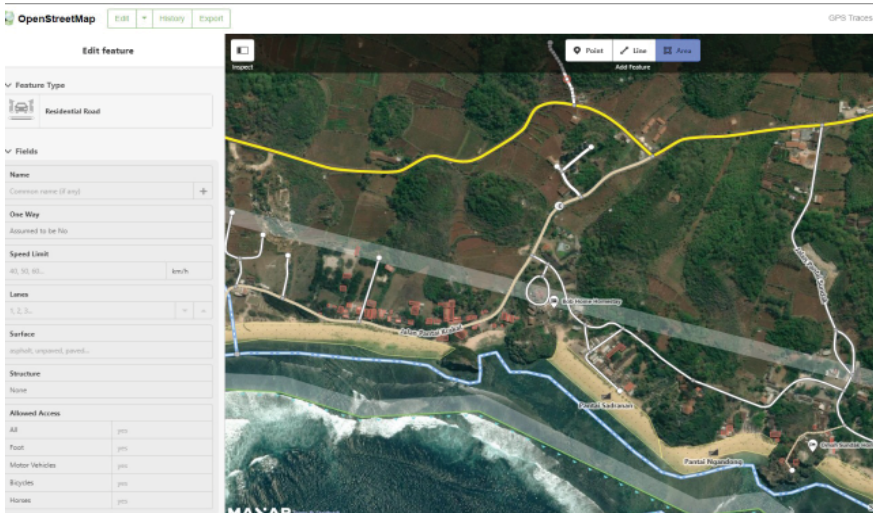

Figure 2. Mapping of Road Network Potential

Analysis of Society 5.0 Figure 2 shows that the road network in Sidoharjo Village is sufficient to support the distribution of clean

water, even though the local road network is limited to connecting to areas with tourism potential, but instead as a starting point for economic development in tourist sites to support the surrounding areas. A step to map the location of raw water must be drawn up to integrate between the existing and the planning. This means that underground clean water sources in the Slili Coast area need to be conserved by the Regional / City Government, together with the local community, academics, private investors if possible in self-help management, then the media as a link for the publication of potential resources owned by Sidoharjo Village, so that it is manifested in society 5.0.

5. Regarding the acquisition of rights, it remains to refer to the limitation of the carrying capacity of natural resources and the carrying capacity of the environment in supporting development is defined as the limit of the capacity of natural resources to support the lives of humans, other living things, and the balance between the two; as well as the ability of the environment to absorb substances, energy and/or other components that enter or are incorporated into it. The carrying capacity of natural resources and the environment's carrying capacity must be considered in every development planning process because it will determine rebuilding sustainability. Several parameters of the carrying capacity of natural resources and the carrying capacity of the environment that need attention include: (a) primary forest cover; (b) forest cover on peatland; (c) critical species habitat; (d) the extent of settlements in coastal areas affected by climate change; (e) disaster-prone areas; (f) water availability; and (g) energy availability [16]. **Analysis of Society 5.0,** based on land use can be taken The conclusion is that the land as a reservoir for rainwater is only 0.339% because 29.02% of the land is not utilized, is of dry type and rocky cliffs. Analysis of natural resources and environmental carrying capacity was carried out on parameters related to water resources based on land use in Sidoharjo Village as follows;

1) based on primary forest cover in Sidoharjo Village is not available, so efforts must be made jointly and continuously between Karangtarusn, the farming community, supported by funding from the City Government to make land in the form of dry land made terraces so that it can be used as plantations and rainfed to form a large infiltration area.

2) The area of settlement in coastal areas affected by climate change, especially on the coast of Slili Beach, Sadranan Beach, Ngandong Beach, and Sundak Beach, because each residential area is very close to the coast, this must be taken seriously because it will have an impact on the stabilization of underground water sources.

3) Sidoharjo Village is experiencing a lack of clean water availability because the management of available water sources has not been optimal; optimization of availability must involve the local Karangtaruna, *Local water company* (PDAM) because this agency is a government tool that serves the distribution of clean water for the community, so that there will be synergy between the agency and the community, and supported by the Regional / City Government.

5. In Appendix I concerning Water Availability, it is estimated that the damage to forest cover will lead to scarcity of raw water, especially on islands with shallow forest cover such as Java, Bali, and Nusa Tenggara. Raw water scarcity has also begun to occur in several other areas due to global climate change that has hit most parts of Indonesia. Currently, water availability is classified as scarce to critical in most areas of Java and Bali. It is estimated that the area of critical water area will increase from 6 percent (2000) to 9.6 percent (2045), covering southern Sumatra, West Nusa Tenggara, and southern Sulawesi. For water scarcity not to hinder development, the national water-safe area needs to be maintained with an area of at least 175. 5 million ha (93%of Indonesia's total area), while water availability on each island must be maintained above 1,000 m / capita/year. Especially for Java Island, considering the threat of a water crisis is very worrying; the proportion of safe water areas needs to be increased significantly [16][16]. **Analysis of Society 5.0,** Seeing the land's potential in Sidoharjo Village, a karst area, it is necessary to examine it more clearly by mapping. It is more easily presented in Figure 3.
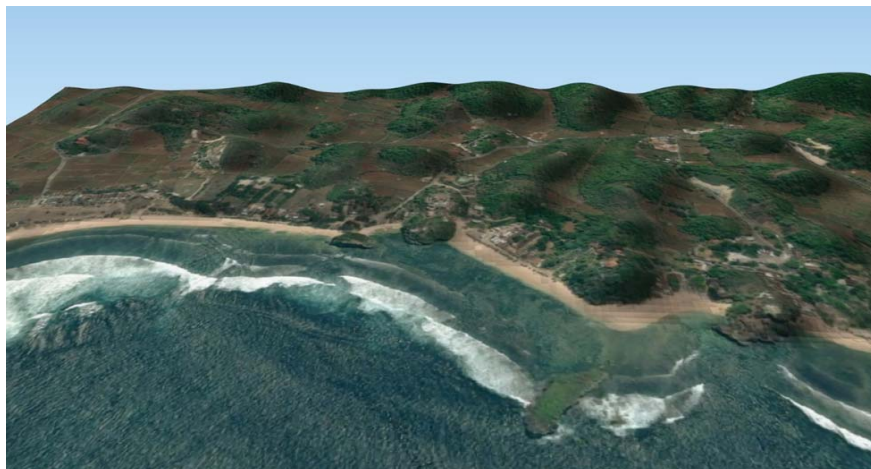
Figure 3. Land Potential in Sidoharjo Village

Based on Figure 3 shows the suitability of the land that Sidoharjo Village with an area of 1,604.29 ha, the percentage of village area to the district area is 15.29, with the division of land functions is the area of open land or paddy fields 5.44, dry land 1,428.54, buildings 141.2 Another 29.02, the results of the analysis of the location did not have forest cover, because it was plantation land, so it was indicated that the scarcity of raw water was increasing. Conditions like the above must be a concern of all systems that are in the concept of the penta helix on water scarcity with endurance (*resilience*) Water Resources, what is meant by a condition which ensures that a location has the availability of clean water which is greater than the need for clean water, both residents and non-residents. What is called the needs of the domestic population is the need for water that is used by the population to fulfill their daily life. Meanwhile, non-resident or non-domestic needs, namely water used to meet commercial area operations and public facilities [3]. Sidoharjo Village must formulate a concept Water Resources resilience which is carried out by the Penta Helix namely Government, Academics, Media, Community, Investors, makes mapping between the needs of non-domestic residents and the needs of domestic residents, to make it easier to map as shown in Figure 4
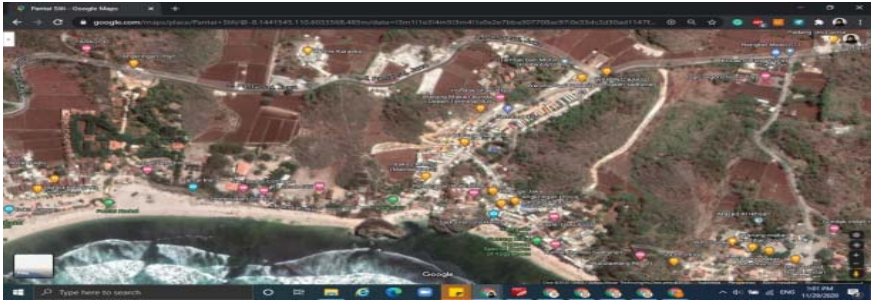
Figure 4. Mapping of Water Requirements

Figure 4 shows that the infrastructure of Sidoharjo Village is centered on the coastal area, namely Slili Beach, Sadranan Beach, Ngandong Beach, and Sundak Beach. The development of tourist areas can increase income from the local community's economic side; However, it causes an increased need for clean water; planning must be made so that increased tourism can support improving clean water infrastructure, resulting in the high synergy between sectors.

7. Increasing the quantity or water security to support economic growth is implemented with the following strategies: (1) strengthening forest areas with protection functions; (2) managing forests sustainably; (3) providing water for agriculture and inland fisheries; (4) providing raw water for priority areas; (5) maintaining, restoring and conserving water resources and their ecosystems including revitalizing lakes and green infrastructure; and (6) developing multipurpose reservoirs. Infrastructure support in water security includes the provision of raw water for priority areas focused on underdeveloped, frontier areas; outer islet; urban; strategic areas (KI, KEK, KSPN); the northern coast of Java Island; and water prone areas. The value of water productivity can be increased through the efficient use of water, especially in agriculture. Infrastructure with high economic value, such as the dam, is expected to provide full service. Besides meeting raw water needs, dams can be used for irrigation, flood reduction, and hydroelectric power generation (PLTA) [17]. **Analysis of Society 5.0**There is several things that need to be done in Sidoharjo Village to improve quantity or water resistance to support economic growth where. It is known that Sidoharjo Village has 4 (four) beaches, which are very potent in supporting the Village economy. Still, only 1 (one) beach has been managed by the Regional Government, namely

Sundak Beach. For a balanced development between existing beaches by the concept of society 5.0, it is necessary to do the following;

1) The dry land area is strived to become a forest or garden so that it is used by and for the community because it is based on land mapping in collaboration with academics, especially Agriculture so that it is suitable for plants that are suitable for the type of soil so that from this it can be used as a rainwater storage area.

2) Provision of water for agriculture with lThe area of paddy fields is 5.44 Ha. In water management, the distribution system is used. It can be done by inputting data to the dashboard so that the schedule for the distribution of irrigation water can be seen from each Android.

3) Maintenance, restoration, and conservation of Water Resources and coastal ecosystems can be

8. **Policy direction in sustainable groundwater and raw water management** accelerates the supply of raw water from protected water sources, increasing integration in drinking water supply, and utilizing technology in raw water management. Strategies to accelerate the supply of raw water from protected water sources include: (a) Additional raw water capacity from dams and other water sources supported by water quality safeguards; (b) Rehabilitation and efficiency improvement of raw water supply infrastructure; and (c) Implementation of groundwater conservation that is integrated with the raw water supply system and is supported by enforcement of groundwater extraction regulations. This strategy needs to be developed simultaneously to improve the Water Treatment Plant (IPA) and water distribution system (PLTA) [18].

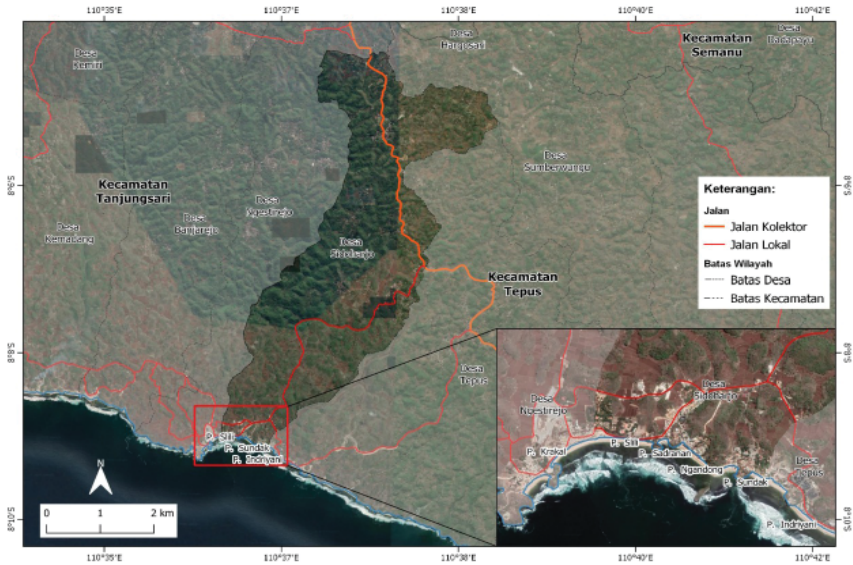To make it easier to analyze is presented in Figure 5.

Figure 5. Mapping of Water Distribution based on Road Network

Analysis of Society 5.0, the problem of clean water in Sidoharjo Village in the existing conditions has not been managed optimally, so it is necessary to hold groundwater conservation in underground water sources, one data and one map are needed as shown in Figure 1. It is known based on Figure 5 that the location of Sidoharjo Village is passed immediately held increasing the capacity of raw water together with academics so that the concept of improvement can be made by making simulations based on data, then rehabilitating the clean water distribution system, increasing the efficiency of infrastructure so that raw water capacity increases, all big data-based systems, and Internet of things (IoT). Based on **Policy direction in the management of groundwater and raw water,** There are several targets for 2024, but the only realistic ones for implementing Desa Sidoharjo are:

1) construction of a new irrigation network because the irrigation network in Sidoharjo Village is not yet available. The irrigation network can increase yields of rice fields that were initially rainfed.

2) the area of protected areas, forests as water storage areas,

3) production forest area,

4) increasing the availability of domestic and industrial raw water.

9. The discourse on water resistance results from UN-Water that there are several critical elements in common for water safety. Below is a summary of the core elements needed to achieve and maintain water security, as found in the various published definitions: (1) Access to safe and adequate drinking water at an affordable cost to meet basic needs including sanitation and hygiene, and safeguarding health and welfare; (2) Protection of livelihoods, human rights, and cultural and recreational values; (3) Conservation and protection of ecosystems in water allocation and management systems in order to maintain their ability to deliver and maintain the functions of essential ecosystem services; (4) Water supply for development and socio-economic activities (such as energy, transportation, industry, tourism); (5) Collection and treatment of used water to protect human life and the environment from pollution; (6) Collaborative approaches to transboundary water resources management within and between countries to promote sustainability and cooperation in fresh water; (7) Ability to deal with uncertainties and risks of hazards related to water, such as floods, drought and pollution, among others; (8) Good governance and accountability, as well as paying attention to the interests of all stakeholders through: an appropriate and effective legal regime; transparent, participatory and accountable institutions (9). Well planned, operated, maintained infrastructure and capacity building (6) Collaborative approaches to transboundary water resources management within and between countries to promote sustainability and cooperation in freshwater; (7) Ability to deal with uncertainties and risks of hazards related to water, such as floods, drought, and pollution, among others; (8) Good governance and accountability, as well as paying attention to the interests of all stakeholders through an appropriate and effective legal regime; transparent, participatory and accountable institutions (9). Well planned, operated, maintained infrastructure and capacity building (6) Collaborative approaches to transboundary water resources management within and between countries to promote sustainability and cooperation in freshwater; (7) Ability to deal with uncertainties and risks of hazards related to water, such as floods, drought, and pollution, among others; (8) Good governance and accountability, as well as paying attention to the interests of all stakeholders through an appropriate and effective legal regime; transparent, participatory

and accountable institutions (9). Well planned, operated, maintained infrastructure and capacity building such as floods, drought, and pollution, among others; (8) Good governance and accountability, as well as paying attention to the interests of all stakeholders through an appropriate and effective legal regime; transparent, participatory and accountable institutions (9). Well planned, operated, maintained infrastructure and capacity building such as floods, drought, and pollution, among others; (8) Good governance and accountability, as well as paying attention to the interests of all stakeholders through an appropriate and effective legal regime; transparent, participatory and accountable institutions (9). Well planned, operated, maintained infrastructure, and capacity building Water (PLTA) [18]. **Analysis of Society 5.0:** based on Figure 6, it is shown that the water-resistance map is based on the condition of the road network, both collector roads, and local roads so that in the water distribution dashboard construction system, it will be easier to build a pipeline network. The next step is based on land use; several functions will be formed, namely in the form of plantation land, fields, rice fields, shrubs or mixed gardens and forests; the formation of this land use is to map the water balance so that the value of water needs and availability can be known.
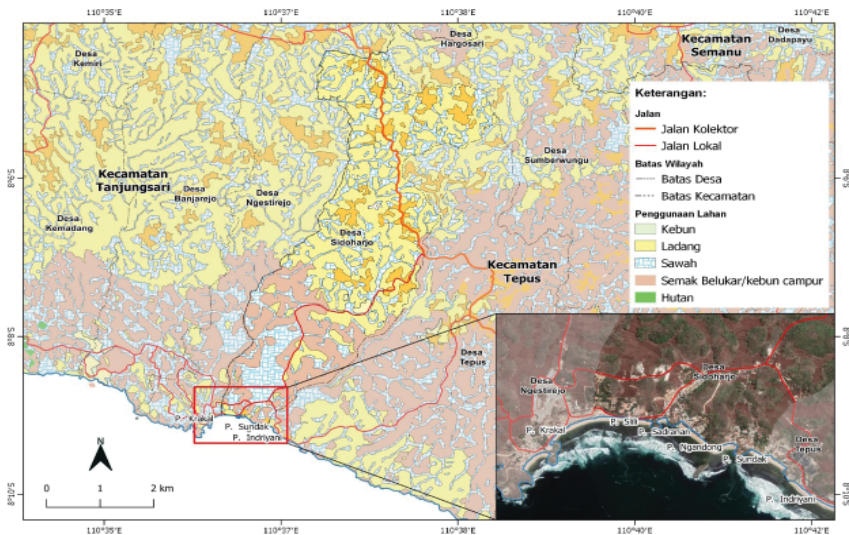

Figure 6. Mapping of Raw Water Resistance

Conclusion

Based on Policy direction in the management of groundwater and raw water, There are several targets for 2024, but the only realistic aspect of the implementation of raw water supply for Desa Sidoharjo is;

1) construction of a new irrigation network because the irrigation network in Sidoharjo Village is not yet available. The irrigation network can increase yields of rice fields that were initially rainfed.

2) area of protected areas, development of areas as water storage areas,

3) the area of a production forest area, apart from being a water storage, can also improve the community's economy,

4) increasing the availability of domestic and industrial raw water as an effort to support the water balance concept.

The best solution to solving the drought problem in Sidoharjo Village is to formulate a water balance concept to measure what factors should be developed. Simultaneously, the variables are used to formulate water balance, namely, components of clean water needs and components of clean water availability. All efforts are made with the synergy of Penta Helix and the realization of a balance between technology and wise policies for and for society to realize the society 5.0 era.

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Implementation of Moral Intelligence Values in the Age of Society 5.0

Ronggo Warsito[1], Dhiva Maulida Rizqi Nur'aini[2], Septiana Wijayanti[3]

Introduction

National character development is a basic need in the process of nation and state. The importance of character education related to its emergence is explained that national character education is not something new for the Indonesian nation. The founders of this nation have thought long ago about the importance of character to make this nation great and honorable in the midst of the world community. The declining character of society needs serious attention. Now there has been moral degradation. The respect of children to father or mother as well as people who should be respected is fading. Manners in society are starting to wear off. Honesty and trustworthiness are starting to be abandoned, and so on. At present, some people have suffered from an inferiority complex or feel that they are low in degrees when compared to other nations. The effect of this attitude is a habit that continues to swallow easily the entry of foreign cultures which are not necessarily suitable and give a positive influence on the nation.[1]

The cultures of western countries that have deviated a lot from the teachings of oriental religions and customs are increasingly gaining space and freely undermining the original culture of the Indonesian people.[2] This is because we feel that their culture is higher, more advanced, and appropriate to the times. The community proudly accepts foreign culture without a filter, so that it makes Eastern culture thinner, fades, and can be abandoned by their own people. The results of the situation analysis, found deviant behaviors or deviant behavior from some people in Bolon Village, Colomadu District. Behavioral deviations that occur in some of the people of Bolon Village need

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serious attention. If left unchecked, this behavior deviation will have more fatal consequences, for example the community will behave at will (at will), violence between residents, apathy and pessimism in an activity and so on

The re-emergence and development of the values of moral intelligence in the era of society 5.0 is very much needed for nation building.[3] Why are the values of moral intelligence important and urgent for our nation? Because our nation has long had habits that are not conducive to building a superior nation. In terms of behavior, morality among students is getting further away from the corridors of ethics and religion. Fights, brawls, intimidation, and other negative behavior are not unusual anymore. In early 1999, an example of a case in Jakarta occurred in a mass brawl involving hundreds of students from various schools. The action of hitting each other turned into throwing stones at each other. The brawl that initially took place on the main road led to the village. Villagers who were disturbed by the presence of students who were fighting tried to evict him and pelted the students with stones. Unfortunately, many stone throws hit the next village. Feeling offended because suddenly his village was stoned, the villagers next door responded by throwing stones too. That is, a brawl that initially occurred between students became a brawl between villages.[4]

According to Ki Hajar Dewantara, the application of character education (moral intelligence) is carried out to help develop life in a positive direction. The statement is, "Character education or moral intelligence is applied to support the development of children's lives. The development of this life is directed towards one positive goal, namely the direction of civilization in its general nature. " Methods that can be done, for example, teaching children how to sit properly, respect for mothers and fathers and others, like to help and so on. Ki Hajar Dewantara, who is known as an educational figure, hopes, "students should be given positive suggestions. The recommendation is intended to make children accustomed to doing various good behaviors in a deliberate way. " In this way, the requirements for character education which were previously known as understanding, feeling, and acting ("tringa") can be fulfilled. The method of presenting Ki Hajar Dewantara's education is called the among method, which according to its validity can also be called the tutwuri handayani method, in the context of

implementing the education system. The mention of tutwuri handayani has contained in it a certain teaching and learning process and has its own characteristics. Adhering to the tutwuri handayani principle also demands an embodiment in curriculum preparation.[5]

The tendency of the nation's children towards the negative as mentioned above is increasingly evident. The development of community life is still marked by various moral, moral imbalances, social, economic, political problems, as well as the emergence of acts of violence. This shows that education in Indonesia has not been able to develop Indonesian people and society as expected. Not a few of the younger generations have failed to display praiseworthy morals according to the expectations of their parents. Politeness, friendly nature, tolerance, humility, helpfulness, social solidarity and so on, which have been the national identity for centuries, seem to be less firmly attached to the Indonesian people. Regarding the values of moral intelligence, in this study, the authors found five moral intelligences that are highly relevant to the era of society 5.0, namely empathy, conscience, self-control, respect, and tolerance. In this research, we will look for reasons why it is necessary to implement the values of moral intelligence in the era of society 5.0. Next, we will describe how the values of moral intelligence are implemented in the 5.0 society era.[6]

Research Methods

This research is in the form of an exploratory study. In this exploratory study, the form of research is qualitative in nature. Qualitative research is an interpretation research. In qualitative research, the researcher engages in an ongoing and ongoing experience with participants. This involvement will lead to a series of strategic, ethical, and personal issues in the qualitative research process. [7]

The research strategy used in this research is single fixed. Single means that there is only one problem studied, namely about the implementation of the values of moral intelligence in the era of society 5.0. It means that when the researcher starts to go into the field, he already has a lot of provisions with relevant theories for problem solving and the focus of the problem has been designed before the researcher goes into it.

Data collection techniques used in the form of in-depth interviews (depth interviewing), observation or observation, and documentation.

In qualitative research, checking the validity of the data uses triangulation techniques. The triangulation used was data / source triangulation and method triangulation. Data triangulation is to test the validity of data from different sources, while method triangulation is to test data using different methods. [8]

The data analysis technique used is an interactive analysis technique in the form of Components of Data Analysis: Interactive Model for qualitative data. This model consists of three components of analysis that are simultaneously interrelated with each other. The three components are (1) data reduction, (2) data display (data presentation), and (3) conclusions drawing / verification (drawing conclusions / verification). Data reduction, data presentation, and conclusion / verification are intertwined. This occurs before, during, and after data collection in parallel form, to build a general insight known as "analysis." Data reduction is a continuous process after going into the field until data collection is deemed sufficient. Data reduction is not something separate from the analysis as a whole.[9]

Research Results and Discussion

The public's response to the practice of moral intelligence values is reported as follows. Regarding caring (empathy), in general, people still have a sense of empathy for fellow humans. However, there are some people who show empathy for others who experience misfortune on the road as long as they are not in a hurry. For fellow community members who apologize for a mistake, all respondents will forgive. However, there are some people who give conditions that they will forgive but with several conditions. Respect for fellow citizens is shown by greeting and walking slowly when they pass.

The results of observations / observations in this study include three aspects, namely 1) observations of spiritual attitudes, 2) observations of social attitudes, and 3) observations of conveying, listening, communicating, and contributing.[10] Spiritual attitude includes three indicators, namely praying starting and ending activities, giving greetings, and giving thanks. Observations of social attitudes include five aspects, namely empathy, conscience, respect, self-control, and tolerance.

The results of the observation of skills competencies include four aspects, namely communicating, listening, arguing, and contributing.

From the observations that the researchers conducted, it was conveyed that the community had not fully practiced the values of moral intelligence, namely empathy, conscience, self-control, respect, and tolerance. From this condition, the author tries to further clarify the material of socialization, by providing input to citizens to use language more effectively and efficiently, and further adding to illustrations in the form of stories about empathy, conscience, self-control, respect, and tolerance.

Regarding the importance of implementing the values of moral intelligence, the results of the analysis of observations conducted by researchers can be reported as follows: (1) The values of moral intelligence are very attractive and foster public response, (2) The enthusiasm of the community is very high in the effort to implement the values of moral intelligence, (3) Most citizens feel unfamiliar with the terms empathy, conscience, self-control, respect, and tolerance. (4) Based on point (3) above, it is necessary for citizens to understand and familiarize themselves with the values of moral intelligence, namely empathy, conscience, self-control, respect and tolerance.[11]

Some of the obstacles found in understanding the values of moral intelligence are the existence of some members of society who do not really understand the values of moral intelligence. From this condition, the writer tries to clarify the implementation material more, by providing input to citizens to use language more effectively and efficiently, and adding more illustrations about empathy, conscience, self-control, respect, and tolerance.

The results of the analysis of observations carried out by researchers can be reported as follows: The values of moral intelligence are very attractive and foster a community response to be implemented in real life. Most of the citizens feel unfamiliar with terms which are the values of moral intelligence. Based on point (3) above, it is necessary to introduce, understand, and familiarize citizens with the values of moral intelligence, namely about empathy, conscience, self-control, respect, and tolerance.

Conclusion

This conclusion is formulated based on data analysis and discussion of research results obtained through several stages. By referring to the problem formulation in the introductory chapter, some conclusions

can be formulated as follows. There are five values of moral intelligence that are relevant to the era of society 5.0, namely empathy, conscience, self-control, respect, and tolerance. Empathy is the ability to understand and feel what other people feel. This first moral virtue sharpens one's sensitivity to differences in viewpoints and opinions of others.

Conscience or conscience is a person's moral awareness in concrete situations. In the center of a person's personality called the heart, he is actually aware of what is really required of him. Ultimately, morally, we have to decide for ourselves what to do. We cannot pass that responsibility on to someone else. We must not simply follow other people's opinions, and we must not blindly obey the demands of an ideology. Independently we must seek clarity on obligations.

Self-control (mujahada al-nafs) is a real struggle or jihad against ego or personal passions. This struggle is carried out because self-desire has a tendency to seek various pleasures, is indifferent to the rights of others, and neglects the obligations that must be carried out. Whoever likes to obey whatever his lust wants, then in fact he has been captured and enslaved by his lust.

Respect is respecting others by being kind and polite. Respect means appreciating someone or something. Respect encourages us to treat and respect others well. Respect is part of the fourth major virtue of moral intelligence in this study. Respect is a virtue that underlies manners. If we treat others as we expect others to treat us, the world will become more moral. Tolerance is a valuable moral virtue that can reduce hatred, violence, and bigotry. With tolerance, one treats others with kindness, respect, and understanding.

Some of the reasons why it is necessary to implement the values of moral intelligence in the era of society 5.0, are the reasons why it is necessary to implement the values of moral intelligence in the era of society 5.0, are (1) the development of information and communication technology that further alienates society from human values because the development of technology and information not only has a positive impact, but also has a negative impact (2) lack of respect for human dignity, (3) the era of society 5.0 which seeks not to degrade the role of humans as in the industrial revolution era 1.0 to 4.0. (4) The next reason is that the era of society 5.0 tries to overcome dehumanization, and on the contrary tries to humanize humans.

The final conclusions of this study are: a. Several other reasons that it is necessary to implement the noble values of the teachings of Ki Hajar Dewantara are because of the occurrence of deviant behavior, an inferiority complex (low degree), and the deteriorating character of the nation. Such conditions need to be resolved immediately, one of which is by exploring the values of local wisdom 2. The implementation of community intelligence values is carried out using a model of knowing the good, feeling the good, and acting the good. Everything begins with knowing beforehand, for example how empathy is a concept. Then we feel the true benefits of empathy, and then it is practiced in everyday life.

The application of the values of moral intelligence begins with knowledge, then to feelings or attitudes and finally to real action / behavior. In other words, the implementation of the values of moral intelligence begins with knowing the good, then grows into feeling the good, and finally becomes acting the good. Thus there will be a sustainable implementation process in the context of its social environment. T

his community culture will be internalized in the personality of the residents which in turn will affect their behavior. Furthermore, it is hoped that through contextual-based socialization by implementing the values of moral intelligence, the citizens will become human with character and intelligence. 3. In social life, a paradigm shift is necessary, not only the transfer of knowledge but more importantly the transfer of values.

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Aggressive Virus Fosters Student Innovation Towards the Era 5.0

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Introduction

Innovative behavior and innovation are social shifts in explaining innovation, which have disparities in the transition characteristics that focus on the study. An object that is seen as something new to someone becomes the focus of innovation. Innovation is very much concerned with the innovative behavior of a person. Meanwhile, innovative action focuses on inventive behavior so that it can develop to improve quality in creating new markets and provide more benefits for the surrounding community, especially during the Covid-19 pandemic. The initial period of Covid that was felt by the community was the discomfort in socializing with family, neighbors, workmates, school friends with restrictions on associating with others for various fundamental reasons, the main one being the very aggressive nature of the corona-19 virus in its transmission [1]–[3].

Background Covid-19 is a large family of viruses that cause illness ranging from mild to severe symptoms. At least two covid-19 types cause diseases that can cause severe symptoms, such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) [4]. Viruses that can cause infection in humans and clinical signs and symptoms reported are mostly fever. Some cases have difficulty breathing, and X-rays show large pneumonia infiltrates in both lungs. Many victims have caused deaths from various groups. But there are also groups, clusters that are not too prone to contracting the covid-19, namely young people and productive age people who have healthy immune powers [5].

Lately, many have discussed the Corona-19 virus, which is currently popular around the world. Covid-19 is a family of viruses that cause

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minor illnesses ranging from the common cold to severe, interfere with breathing, and are very quickly transmitted aggressively from one person to another. Another impact of the spread of news is that people in the red zone receive isolation treatment by the government. News and information from various valid media can help the community understand and follow up on preventing it. There is also hoax news about handling covid-19 and causing public misunderstanding regarding the impact of the spread of covid-19 [5], [6].

People in early adulthood and people in the productive period have good immunity because they still have physical abilities that are still developing according to their developmental age and have firm psychological morale. Even though age groups that still have a lot of physical and psychological energy are getting more substantial during the pandemic, they can respond to the difficult times felt by all society levels by replacing useful activities. Useful activities that can be carried out, especially during the pandemic, include planting hydroponics, carving, and convection. Opening land and training that is useful for people affected by covid-19 may also be ways that the government can seek [7]–[10].

The work is an innovation made by people who can make dreams that cannot be made into innovations that are useful for society. Innovations are made in the form of products introduced to the public, which can be sold online or directly to consumers. The benefits obtained can be enjoyed and used by many people due to innovation. Dharma and Akib (2007) say that innovation is any effort that results in better products, processes, procedures, or new and better ways of doing things introduced by individuals, groups, or institutions. Individuals who have innovative behavior are daily habits [11].

Community groups who have worked on their innovations need to get support from the surrounding community to foster other innovator's spirit, namely the children of the younger generation, namely the enthusiasm of students who are still in school. The physical and psychological energies of adolescent children who are still sitting in school also have a body resistance, although perhaps their psychological immunity is still low with life's problems. The ability of innovation in students can be in the form of participation in research and engineering products that can be useful for society. Although the possibility of his innovative work is still in the product design introduction stage, it is

necessary to get encouragement to realize the form of the product he designed.

Students welcome the 5.0 society era as part of the super-smart ecosystem. The age of Society 5.0 is a community developed as the Japanese government's vision for a future society supported by the internet as supporting technology such as big data, internet of things (IoT), artificial intelligence (AI). As young people who have fresh intellectual abilities to carry out cognitive and conative activities, students can be involved and need encouragement from people around them to realize their innovations. Adolescents have strong, aggressive power in capturing stimuli from their environment. During adolescence, this aggression requires students in schools to raise awareness in building innovations for their students to produce products during a pandemic. Following Law No. 18 of 2002, innovation is a research, development, and engineering activity aiming to develop practical applications of new values and scientific contexts or new ways of applying existing science and technology to products or production processes.

Discussion

Aggressive

Aggressive behavior often gets negative attributes from society; for example, if someone commits violence against others, they will get the label as someone who has disrespectful and dishonorable behavior. Most of the aggressive behavior carried out by a person can be carried out spontaneously, intentionally, or unintentionally, resulting in offending the dignity of the person being verbally attacked, injuring, and harming others. This opinion is supported by Atkinson (1999), which defines aggression as behavior that deliberately intends to hurt others directly, both physically and verbally, as well as destroying their possessions [12].

Aggressive behavior is synonymous with action that deliberately intends to injure others directly with physical and verbal forms. Furthermore, it is to damage and destroy property belonging to oneself and others. However, when aggressive studies are viewed from a different perspective, not all aggressiveness is a bad problem. There is the aggressiveness of someone who has speed in capturing a problem to solve problems through positive activities. An example is if a student or student who still has brightness in his intellect during a pandemic can produce work that can be enjoyed by the community.

For certain people, positively aggressive behavior will take a different form of action; for example, a student quickly answers a teacher's question in class. A behavioral psychology review with the speed of answering the teacher's questions is positively aggressive behavior, mostly based on the teacher's orders with a speed competition in answering questions. Another example is the way teachers motivate and train their students to speak up and dare to answer. Many characters still think about dealing with aggressiveness in adolescents but are still in an aggressive context that contains negative emotions. Negative emotions will give birth to aggressive behavior carried out by individuals to hurt or harm others with a specific purpose or without the aim of protecting themselves who are being threatened.

Aronson stated that aggressive behavior is behavior carried out by individuals to hurt or harm other individuals with or without a specific purpose (Koeswara, 1988). However, in certain conditions, if someone gets a threat from outside, he will spontaneously try to protect himself aggressively. In connection with the student, aggressiveness is aggressive behavior by carrying out activities by their intellectual power in the form of innovative works that can be used by the community. In a threatening condition, a person will spontaneously take aggressive actions; likewise, during a pandemic, a person feels threatened by his discomfort and aggressively captures the necessities of life in the form of innovative product work.

Before getting further about destructive, aggressive behavior and productive aggressive behavior, it is necessary first to assess the dimensions of aggressive behavior in a person. Buss argues that aggressive behavior can be classified into three dimensions: physical-verbal, active-passive, and direct-indirect. The difference in the physical-verbal extent lies in the difference between hurting someone else's body or body and attacking with words; the difference in the active-passive dimension is the difference between real action and failure to act. Simultaneously, direct aggression means face to face contact with someone attacked, and aggression does not appear immediately in connection with the person being attacked [13].

Schneiders explained the aspects of aggressive behavior, namely; a) Authoritarian, that is, people have rigid personality traits in holding conventional values and cannot tolerate weaknesses that exist in themselves or others b) Superior, namely individuals feel the best

compared to other individuals c) Egocentric, namely individuals prioritize personal needs without paying attention to their interests as shown by power and ownership d) The desire to attack both objects and individuals and have a tendency to vent their wishes and feelings that are uncomfortable or dissatisfied with the surrounding environment by attacking individuals or other objects around it [14].

Various expert opinions are still and may lead to the point of view of destructive aggressiveness. If we look at the three dominance of aggressive behavior, a person's tendency to combine aggressive behavior will be obtained. The combination of three dimensions produces a framework to categorize various forms of aggressive behavior. However, the combination is still being studied about destructive, aggressive behavior, even not responding to aggression that builds superior personality traits. Still the same as Medinus and Johnson and Medinnus (1976) opinion classifies aggression into four categories, namely: a) Physical attack, such as hitting, pushing, spitting, punching, kicking b) Attacking an object, such as attacking an inanimate object or star c) Verbally or symbolic, such as verbally threatening, aggravating others, threatening, and demanding d) Violation of other people's property or attacking other people's territory [15], [16].

According to Buss, aggressive behavior divides human aggression into eight classes, namely: a. Direct active physical attack, b. Direct passive physical aggression, c. Indirect active physical aggression, d. Indirect passive physical aggression, e. Direct active verbal aggression f. Direct passive verbal aggression, g. Indirect active verbal aggression, h. Indirect passive verbal aggression [17]. When applied to adolescents as students who have optimal physical abilities and intelligence, the type of aggression is a combination of the types of aggression put forward by Buss. As a student, adolescents require guidance in interpreting aggressiveness during the development of his personality and fast-paced motivation.

The spirit possessed by adolescents in the form of aggressiveness can become a virus that sticks to their bodies from every behavior. The aggressive virus will move quickly to encourage enthusiasm to express abilities and manifest in skills. The ability of aggressive viruses to mutate soon, likewise with aggressive adolescent viruses, will mutate in the sense of rapidly expressing abilities as a form of innovation during their development. During the psychological development

of adolescents, they still need guidance and assistance to express life values. The expression of youth's values as students will encourage other students to work as products of innovation.

Innovation

The form of innovation that follows the values in Indonesia is stated in Law Number 18 of 2002. According to the Law, innovation is a research, development, and/or engineering activity aiming to develop the practical application of new scientific values and contexts, or methods - new ways to apply existing technological sciences to a product or production process. Janssen (2000) defines innovative behavior as the deliberate creation, introduction, and application of new ideas in a job, group, or organization to gain benefits in the performance of a job, group, or organization. This definition limits innovative behavior as attempts are deliberately made to bring about new, profitable outcomes [18].

According to Wess & Farr (2013), the definition of innovative behavior is all the behavior of a person aimed at creating, introducing, and implementing something new and useful in various organizations. Some researchers call it shop-floor Innovation [19]–[22]. Zhou and George (2001) stated that the character of individuals who have innovative behavior are: 1) Digging up information about the latest technology and new ideas, 2) Creating creative ideas, 3) channeling the resulting ideas to others, 4) Develop and prepare the resources needed to implement new ideas, 5) Build a mature plan to realize these ideas [23].

De Jong & Den Hartog (2008) detail in more depth innovative behavior in carrying out the innovation process into four stages as follows:

1) Opportunity

   Find an opportunity for someone and analyze the various options that arise. Finding opportunities can come from dissatisfaction with existing methods and improve the process for the better, such as the emergence of difficulties in the ongoing work system, unmet consumer needs, or the emergence of changing trends.

2) Idea Generation

   At this stage, individuals generate inventive ideas that aim at improvement, such as creating something new or improving services

and making supporting technology. The main thing about generating ideas is aggregating and reorganizing existing knowledge and data to improve performance or solve problems.

3) Championing

When an idea is born, it must be realized. This stage is often referred to as convergent innovation behavior. Convergent innovation behavior is an attempt to become a champion and strive hard. Fighting for ideas can take the form of building relationships with other people or influencing others and can also pressure or negotiate. This effort is useful for convincing others of the added value or function of our proposed innovation.

4) Application

This stage is the last, namely realizing the ideas that have been generated, including individual behavior, to apply the resulting ideas. The behavior at this application stage relates to the efforts carried out by individuals in implementing ideas in the real world. According to Janssen (2000), innovative work behavior is defined as creating, introducing, and applying new concepts or ideas in a job, group, or organization to improve the individual, group, or organizational role. [19], [24]

Scott & Bruce (1994) have two kinds of innovation: radical Innovation and incremental Innovation when viewed from the speed of change in the innovation process. Radical innovations are usually realized on a large scale, carried out by experts in their fields, and are generally managed by agencies related to research and development. This radical innovation is usually carried out in manufacturing companies and financial service institutions, and incremental innovation is implementing or applying smaller innovations. These innovations generally produce goods or services that are not much different from their origin, but these incremental innovations often create significant added value for their users [25]–[27].

Conclusion

Society 5.0 is a human-centered and technology-based (technology-based) concept developed by Japan around October 4, 2019. The idea of society 5.0 is a concept that introduces community in the future that human life will be based on digital technology. Therefore, the

Indonesian nation in welcoming the era of society change 5.0 started at childhood. Preschool age and school-age are followed by the child's cognitive development, which will make them capable of fantasizing. Fantasy in children is needed to provide rapid stimulation to capture the content of the problems found aggressively.

At school age, children's cognitive development makes them capable of fantasizing. The content of fantasy is much influenced by the spectacle that is watched by children. Through this spectacle, children learn about bad and good characters so that they want to behave like admired characters. According to Cavell (2000), the factors that cause aggressive behavior are biological, family factors, socio-cognitive factors, peer or group, academic, school teachers, and the community. Biological factors related to genetics (e.g., temperament), pioneering mass, and biological mechanisms. Family factors such as parenting styles and family disruptions, such as pressure or rejection from the group, are peer factors. Cognitive, social factors are associated with a person's inadequate ability to process social information appropriately. From infancy, biological development also coincides with cognitive development until childhood, which appears in childhood in fantasy [28].

Wenar & Kerig (2000), one of the factors causing aggressive behavior is low self-control [29]. According to Hurlock (1990), a person's self-control is related to how individuals control their emotions and drives in them [30]. Rahman (2013) besides that aggression is differentiated based on how the behavior is carried out, namely, first, whether aggression is carried out directly (directly aimed at the perpetrator to the victim) or indirectly (carried out by other people or directed at people or objects related to the target of aggression). Second, whether aggression is active (hurting others by showing actions or words) or passive (hurting others by not doing or saying something that should be done or said). Third, aggression is carried out verbally (hurting others through words) or non-physically (hurting others through actions) [31], [32].

If an individual experiences problems and fails to deal with these problems, frustration will arise, leading to aggressive behavior. Student aggressiveness in society 5.0 has a superior perspective if they receive guidance and are given opportunities and a place to express their abilities. The nature of the virus is mutating in developing its

ability with aggressive traits that can be modified in adolescents' aggressive behavior. The attributes of aggressiveness in adolescents get a good label, and it is not always that every adolescent aggression has a destructive impact on society. Hanurawan (2005) argues that one of the factors causing the emergence of aggressive behavior is frustration; aggression behavior arises because someone is obstructed from achieving specific goals, needs, desires, expectations, or actions [33], [34].

The aggressive virus in adolescents will become a weapon that can generate creative and novel ideas if all intelligence is applied in school children. The virus is a symbol in holding aggression towards society 5.0; however, it will be in vain if youth's goals as students in making innovation are not appropriately managed for society's benefit. Bryd & Brown (2003) For high school students, the courage to take risks is needed in implementing an idea because introducing something new contains risks. The meaning of taking a risk is the intelligence to force a new creation in facing existing challenges or problems so that accepting risks is a method for implementing creative ideas in the real world [27].

The form of youth innovation as students that have been broadcast by Metro Television on November 18, 2020, at 16.50 by Fitri Cahyaningtyas from Gresik, East Java with Innovation is Balm. An innovative balm for stomach aches is made from "simbukan" leaves recognized at the international children's innovation arena. It seems that the virus, as a symbol of aggressiveness, has a significant effect together as a predictor of innovation in high school students. Therefore, further research is expected to continue this research so that knowledge and knowledge about innovation and information and aggressiveness can continue to develop. Future research can examine the innovations of high school students with other factors to provide more extensive information.

According to De Jong and Hartog (2010), innovative work behavior is a series of work activities that are gradually carried out to develop and increase effective work behavior [19]. According to Janssen (2000), the development of this innovation requires a contribution from each individual. In the perspective of organizational psychology, these activities are called innovative work behavioral (innovative behavior). The development of this innovation requires a contribution from each individual, especially students in high schools. Therefore it is

essential to understand individual activities that lead to innovation. In organizational psychology, these activities are called innovative work behaviors [18], [35].

Aggressive behavior during childhood and early adolescence is a predictor of anti-social problems in the future because the offender tends to have difficulty developing the ability to form healthy interpersonal relationships. Besides, it can also affect school academic issues; therefore, an innovative channel is needed to guide children who have aggressive tendencies. Welcoming the era of societal change 5.0 handling aggressive children requires education and psychological coaching and guidance to fantasize about the growing power and finding innovative product work. Innovation products can be in the form of student research, community service as the application of their innovative products' results, and creating new and recycled products.

The level of aggression in students needs to be identified to clarify the problems associated with the negative effects of aggressiveness and the positive impact of aggression regarding the speed with which strong intelligence impacts innovation. Children's aggressive behavior does not always have a lousy attribute if they get proper guidance in preparing adolescents. Students are ready to welcome the era of changing times in society 5.0. Guidance is needed to become a basis for carrying out prevention and handling programs provided to students and providing opportunities for students to provide facilities for developing innovation. This opinion is similar to a study conducted by Risser (2013) on 1,067 grade 4 and 5 students who found that in female students, relational aggression is statistically negatively correlated with academic achievement (performance in school) by controlling the aspects of victimization and aggression. Meanwhile, overt aggression in male students negatively correlates with their performance in school [36], [37]
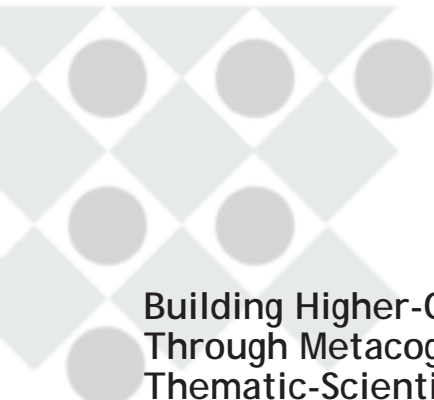
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Building Higher-Order Thinking Skills (HOTS) Through Metacognition-Based Learning with Thematic-Scientific Approach

Theresia Kriswianti Nugrahaningsih[1] and Iswan Riyadi[2]

Introduction

To face the era of the 4.0 industrial revolution, a learning process is needed that leads to the establishment of higher-order thinking skills (HOTS). This can be started when studying in elementary school. As mandated in the enhanced 2013 curriculum, learning is provided in a thematic form. This article provides an alternative to the establishment of higher-order thinking skills by utilizing metacognition in thematic-scientific learning in elementary schools. Learning begins by presenting a theme that has been determined according to the curriculum, drawn from contextual problems that are familiar to students. In presenting the material it is based on the stages of scientific learning by paying attention to higher-order thinking processes. Another thing that is no less important is the evaluation tool. The evaluation tool is designed to lead to higher-order thinking, namely testing the cognitive levels of C4, C5, and C6.

Discussion

Higher-order Thinking Skills

Higher-order thinking skills include critical, logical, reflective, metacognitive, and creative thinking. They are activated when the individual faces an unknown problem, uncertainty, question, or dilemma. The successful application of skills results in explanations, decisions, performance, and products that are valid in the context of available knowledge and experience and which promote the continued growth of other intellectual skills [1].

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Mulyadi and friends [2] stated that higher-order thinking will transform complex material into parts, detect relationships, combine new and old information, be creative in constrained contexts, and make decisions by combining and use all prior knowledge.

In this regard, the purpose of learning children is to acquire abilities or skills both in cognitive, affective, and psychomotor skills. As stated by Benjamin S. Bloom [3] stated that the domain of learning outcomes is the cognitive, affective, and psychomotor domains. To achieve these three learning domains, a thought process is required. In thinking there are two ways of thinking, namely creative thinking, and analytical thinking. Creative thinking is thinking that will generate new ideas and products, always find new ways to express something and connect existing ideas to produce better ideas. Analytical thinking is placing a situation, problem, subject, or decision on a rigorous examination in a logical step-by-step manner. Dimensions of thinking according to Marzano [4] in their book, include metacognitive, critical and creative thinking, process thinking, core thinking skills, and the ability to connect the content.

Rose et al. said that children, adults, companies, and nations who develop analytical creative thinking will rule the 21st- century. Someone who can think at a high level is one who has more intelligence [5]. Gardner in Multiple Intelligences stated that children with greater intelligence can solve problems, find answers to specific questions, and learn new materials quickly and efficiently [6].

The Ministry of Education and Culture expects students to achieve various competencies by applying Higher Level Thinking Skills (HOTS). These competencies include critical thinking, creative and innovative, communication skills, the ability to work together (collaboration), and confidence. The five things conveyed by the government that are the character targets of students are inherent in our evaluation system in the national exam and are 21st- century skills. [7].

According to some experts, one of the definitions of higher-order thinking skills from Resnick is a complex thought process in describing the material, making conclusions, building representations, analyzing, and building relationships by involving the most basic mental activities [8]. These skills are also used to underline various high-order processes according to Bloom's taxonomic level.

Bloom, a teacher from Anderson and Krathwohl divides learning objectives into three learning domains, namely cognitive, affective, and psychomotor domains [9]. In the cognitive domain, Anderson and Krathwohl divide into six thinking abilities, namely, (1) remembering, (2) understanding, (3) application, (4) analyzing, (5) evaluating, and (6) creating. Of the six thinking skills, they are grouped into two thinking skills, namely higher-order thinking skills, which include analyzing, evaluating, and creating, and low-order thinking skills, which include remembering, understanding, and applications [10].

While from the results of his research, Zohar strongly suggested that teachers should encourage students of all academic levels to engage in tasks that involve higher-order thinking [11]. In the next studies, Anat Zohar and Schwartzer enhanced the assignment of higher-order thinking tasks by providing a variety of thinking strategies; increasing student involvement in metacognitive thinking; and using "language thinking" in the classroom [12]. Meanwhile, Barnett's tips for improving critical thinking are to give higher-order thinking questions [13]. So, to practice high-level thinking skills students have developed evaluation tools by tackling high-order thinking skills.

Multiple intelligences consist of several bits of intelligence in them ranging from linguistic, logical-mathematical, visual-spatial, kinesthetic, musical, interpersonal, intrapersonal, and naturalist intelligence. Knowledge about the type of intelligence students have will greatly help teachers facilitate learning with the learning styles of each student, even able to help students who have. Uswatun Sholiah et al. proved that there is a very strong correlation between multiple intelligences and higher-order thinking skills. If the student's multiple intelligence is good, it will also be good for higher-order thinking skills. Students with logical-mathematical intelligence tend to have better higher-order thinking skills [14]. Furthermore, there is a true relationship between logical-mathematical intelligence and higher-order thinking skills. Intrapersonal intelligence has a relationship with higher-order thinking skills. Students with intrapersonal intelligence are students who understand their own strengths and weaknesses.

Metacognition

John Flavell, a psychologist from Stanford University coined the term metacognition in around 1976. According to John Flavell,

metacognition is defined as thinking about one's thinking processes. It has to do with the active monitoring and regulation of cognitive processes, which means that metacognition is thinking about a person's thinking processes. This must be done by actively monitoring and regulating cognitive processes. Metacognition is also defined as "One's knowledge concerning one's own cognitive processes or anything related to them" [15].

Blakey [16], argues that Metacognition is thinking about thinking, knowing "what we know" and "what we don't know". So with metacognition, a person will "know the known and know the unknown". Marulis et al [17] proposed that by integrating metacognition and executive function in developmental theory, research, instruction, and interventions, children's awareness and control, or agency, concerning their own learning can be enhanced.

Metacognitive strategy refers to the methods used to help students understand the way they learn, a process designed for students to get students to 'think' about their 'thinking'. Blakey [16] formulates metacognitive strategies in the basic metacognitive strategies, namely:

a. Connecting new information to former knowledge,

b. Selecting thinking strategies deliberately.

c. Planning, monitoring, and evaluating thinking processes.

Desoete [18] refers to Brown's opinion that executive control or metacognitive skills can be seen as a person's control over their own cognitive processes, with four metacognitive skills: prediction, planning, monitoring, and evaluation. In mathematics, prediction refers to activities that aim to distinguish difficult exercises from easy ones, to be able to concentrate and be more resilient in thinking. Planning involves analyzing exercises, taking specific relevant domains of knowledge and skills, and sequencing problem-solving strategies. Related monitoring for questions such as; Am I following my plan? Can this plan be carried out? Do I have to use paper and pencil to solve the divisions? etc. In evaluation, assess ourselves for the answers obtained and the process of obtaining these answers.

Thematic approach

Thematic learning is integrated learning that uses themes to link several subjects so that they can provide meaningful experiences to

students. This is in line with [19] who argues that thematic learning allows teachers to organize learning on several topics by integrating the content and skills of several subjects. Kovalik argues that thematic learning is a model of curriculum and learning that makes it easier to achieve goals [20].

A thematic approach can allow students to more thoroughly analyze topics, understand key concepts, and find value in problems. With the implementation of learning by utilizing this theme, several benefits will be obtained, namely: 1) By combining some basic competencies, indicators, and subject content there will be savings because overlapping material can be reduced or even eliminated, 2) Students can see the relationships that are meaningful because the content/learning material plays a more role as a means or tool, not a final goal, 3) Learning becomes complete so that students will get an understanding of the process and material that is not fragmented. 4) With the integration between subjects, the mastery of concepts will be better and increase.

Scientific Approach

Learning with a scientific approach is learning which consists of observing (to identify things you want to know), formulating questions (and formulating hypotheses), trying/collecting data (information) with various techniques, associating/analyzing/processing data (information), and draw conclusions and communicate results consisting of conclusions to acquire knowledge, skills, and attitudes. These steps can be continued with activities to create [21].

Learning activities at each step of the scientific approach can be described as follows:

1. Observing: reading, listening, listening, seeing (without or with tools) to identify things you want to know

2. Asking: asking questions about things that are not understood from what is observed or questions to get additional information about what is observed

3. Trying/collecting data (information): conducting experiments, reading other sources and textbooks, observing objects/events/ activities, interviewing sources.

4. Associating/processing information: students process information that has been collected, either limited to the results of gathering/

experimental activities or the results of observing and gathering information.

5. Communicating: students submit observations and conclusions based on the results of the analysis orally, in writing, or in other media

6. (Can be continued with) Creating: students innovate to create, design models, produce based on the knowledge learned.

Thematic-Scientific Learning Development that Involves Metacognition to Build Higher-Order Thinking Skills

The development of this model uses a thematic approach and a scientific approach. The thematic approach in this case is used to package learning that starts with a particular theme. The theme is raised from contextual problems known to students, taken from a problem that can indeed be related to all subjects to be taught. Starting from this theme, learning begins, then enters each subject. Meanwhile, the scientific approach is used to build cognition in each subject, by applying the 5 steps, observing, asking, trying/collecting data (information), associating/processing information, and communicating. In carrying out these steps the teacher always remembers to provide stimulation so that students can make questions and express opinions. By presenting facts, concepts, and procedures in problems, students are invited to differentiate, organize, attribute the point of view (analyze/ C4), learn to check and criticize a problem (evaluate/ C5), and finally students are allowed to generate, plan, and produce something (create / C6). Thus, learning leads to higher-order thinking, and students are always trained to be able to think at a higher level, as a provision for learning at a higher school level and especially as a provision in facing the era of the industrial revolution.

To support learning, learning media is developed that combines thematic approaches and scientific approaches, by paying attention to metacognition in elementary students. This learning media begins by presenting the themes for the subjects to be studied. The theme is taken from contextual problems that are familiar to students so that students can connect, participate actively in learning by expressing opinions and asking questions. Thus learning will be alive and can form students' thinking skills as expected. The evaluation tool developed is also made regarding higher-order thinking skills. Aydin concluded that

metacognitive skills develop thinking skills, provide active learning, develop general abilities and intelligence, develop problem-solving skills [22].

The five components developed in this model as proposed by Joyce [23] are; 1) Syntax 2) Social System 3) Principle Reaction 4) Support System 5) Instructional effects and nurturant effects.

Conclusion

Learning with a thematic-scientific approach based on metacognition can build students' higher-order thinking skills. Using the metacognitive strategy recommended by Blakey, learning begins with contextual problems as the main theme, students are asked to identify problems that arise, are invited to express their opinions about problems that arise, and are given the chance to ask questions that have not been understood. Teachers provide opportunities for students to express opinions so that two-way communication between teachers and students can take place. Likewise, students are given the chance to discuss with their friends so that multi-directional communication is formed. This will improve students' skills to communicate and collaborate. Class discussions can go well. The teacher asks questions that lead to the formation of higher-order thinking skills for students. This will make students able to think at a higher level. With contextual themes, students can be trained to construct their knowledge by collaborating with friends and support from the teacher. By learning with the same theme for various subjects, students' knowledge becomes intact and connected, so that it is more durable in their memory. By often guiding students with questions at cognitive levels C4 to C6 can train students to think critically, creatively, innovatively, which in turn will help students master 21st-century skills.

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Development of the Productive Fisheries Sector as an Effort to Reduce the Poverty Rate of Fishermen in Coastal Areas

Totok Hendarto[1]

Introduction

Availability of foodstuffs and reducing poverty are big goals of development programs in many countries. The goal of development in a country should be able to deliver its people to a decent and prosperous life from time to time, as the development program is running. The basic welfare form of the development program is the availability of foodstuffs for the community. Cooperation between countries is a real form of efforts to reduce poverty and strengthen food security in each country. However, to this day, there are still many countries living in a vicious circle of poverty and vulnerability to panic [1].

Poverty is still a lot of important discussion because poverty is related to many aspects, not only one side of the income aspect, but it is very varied and multidimensional. Multidimensional discussion of poverty includes a very broad socioeconomic and institutional aspects. One of them, poverty is always related with low health level, which is caused by poor hygiene practices such as unhealthy food, smoking habits and physical activity were less good life [2].

In Indonesia, poverty alleviation programs are still one of the focus of development goals. Poverty is important to discuss because it is always related to the quality of the living environment, multidimensional poverty is more in rural areas, which depend more on the local ecosystem, namely its ability to produce food. It is feared that poor community groups with their poverty conditions will prioritize food needs while at the expense of their environmental system. So it is suspected that there is a close relationship between the parameters of economic dynamics and ecological parameters [3].

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One of the social professions, most of which are vulnerable to poverty, are fishing communities in coastal areas. Although the coastal area is the meeting point between the land area and the sea area, so many resources should be used as the basis for food security. Most of the fishing community is classified as laborers and small fishermen with a very limited life. Fishermen have a tendency to have no other skills besides fish, it is different from farmers who can still do many things when there is time to wait for the harvest to arrive. The fulfillment of basic needs in the form of daily foodstuffs is still considered very difficult to prepare. For fishing communities, there are several types of basic necessities of life, the most important and obligatory to be fulfilled is food needs. The existence of the continuity of meeting their daily food needs is very important for them to be able to maintain their survival [4].

This exposure will be much to discuss shared issues related to the concept of development of the productive sector of fisheries to suppress the number of poverty in coastal areas of the northern coast of Java T imur and South coast of East Java. The level of poverty in the community is always related to the fulfillment of food security. People will be said to be poor if most of their income is still used for their daily food needs. Generally, the poor people are in rural areas. With the results of this poverty disparity analysis, it is expected that policies for the development of the productive sector in the fisheries sector will reduce poverty disparities.

Discussion

Poverty Rate in Coastal Areas

The concept of development requires an even economic growth in all areas of development, but in fact it cannot be denied that each region has different regional characteristics, both in terms of the variety of types and the number of types of natural resources. Apart from that, he also realized that there were often imbalances in the quality of human resources for the development actors. Both in terms of the level of productivity which concerns the variety of achievements and the number of achievements. The other side is the ease of access in utilizing energy resources. And often it is also caused by the weighting and emphasis of the development program itself, so that the potential is not immediately able to enjoy the results of the development process equally.

Coastal areas are widely discussed in relation to the potential for abundant natural resources because they are the confluence of the ocean and land areas, however, there are often many life problems related to the fulfillment of basic needs such as food and the level of community welfare. In the social context, the coastal area is more of a dynamic area with all its economic and social activities and interactions that occur in the surrounding environmentCoastal areas are also still dealing with damage to natural resources such as overexploitation of resources, physical damage to important ecosystem habitats such as pollution, garbage and abrasion of sea water.

From the social perspective, the poverty rate is still high, the inability to access health and education facilities and other population facilities. It is hoped that the poverty rate analysis can provide a more precise and more accurate road map for development priorities and focus spots for regional development. Policy analysis related to poverty alleviation is a concern and partisanship of humanitarian development programs and social interactions.

Especially the problem of poverty in coastal areas, the conception of coastal development will not be far from what is called a sustainable fisheries system. Sustainable fisheries systems are complex systems, and have a number of elements that are linked to each other dynamically and statically.

Examples of case studies given are the number of poor people in the North Coastal areas of East Java (Pantura East Java), the South Coast of East Java (Pansela East Java) and the Madura Coast in Table 1.

Table 1. Number of Poor People in the Pantura, Pansela East Java and Madura Coastal

No.	District / City	Number of Poor Population			
		2018 (Thousand Souls)	Percentage (%)	2019 (Thousand Souls)	Percentage (%)
Pantura of Easty Java					
1	Tuban Regency	178.64	15.31	170.80	14.58
2	Lamongan Regency	164.00	13.80	157.11	13.21
3	Gresik Regency	154.02	11.89	148.61	11.35
4	City of Surabaya	140.81	4.88	130.55	4.51
5	Sidoarjo Regency	125.75	5.69	119.29	5.32
6	Pasuruan Regency	152.48	9.45	141.09	8.68
7	Probolinggo Regency	217.06	18.71	207.22	17.76
8	Situbondo District	80.27	11.82	76.44	11.20
total		1 .213, 03	91 , 55	1,086, 49	86, 61
Average		151, 63	**11 , 44**	135, 81	**10, 83**

East Java Pansela					
1	Pacitan Regency	78.64	14.19	75.86	13.67
2	Trenggalek Regency	83.50	12.02	76.44	10.98
3	Tulungagung Regency	75.23	7.27	70.01	6.74
4	Blitar Regency	112.40	9.72	103.75	8.94
5	Malang Regency	268.49	10.37	246.60	9.47
6	Lumajang Regency	103.69	9.98	98.88	9.49
7	Jember Regency	243.42	9.98	226.57	9.25
8	Banyuwangi Regency	125.50	7.80	121.37	7.52
total		1,090.87	81.33	1,019.48	76.06
Average		136.36	**10,17**	127.44	**9,51**

Madura					
1	Bangkalan Regency	191.33	19.59	186.11	18.90
2	Sampang District	204.82	21.21	202.21	20.71
3	Pamekasan Regency	125.76	14.47	122.43	13.95
4	Sumenep Regency	218.60	20.16	211.98	19.48
total		740.51	75.43	722.73	73.04
Average		185.12	**18.85**	180.68	**18.26**

Source: East Java province in 2020 figures [5]

At table 1 shows that the number of poor people in the northern coastal areas of Java averaged 1 1 , 44 % in 2018 and in 2019 decreased to 10.83% and in the South coast of Java on average reaches 10.17% in 2018 and in 2019 it decreased to 9.51%. Whereas in the Madura region it was 18.85% in 2018 and in 2019 it was 18.26%. This shows that the

number of poor people is more concentrated in the Madura area in general and in Sampang Regency in particular. The data in table 1 above requires the government to reconsider the development strategy so that it is not only oriented towards high growth rates but also considers the spread of economic growth rates. The distribution of economic activity should be more equitable throughout the development area, based on the development of resources in the region. For coastal areas, the development of the fisheries sector in a wider area should get more attention and get more encouragement. For this reason, the conception of the development of the productive fisheries sector must be one of the development priorities in coastal areas.

Fisheries Productive Sector Development

Sustainable fisheries development includes at least three basic things, namely:

1. Fisheries Natural System

The natural fisheries system includes understanding the fish itself, the form of the ecosystem, and the biophysical environment, all fishing efforts, fish cultivation , the supporting environment for fresh and brackish water fish resources, the supporting environment for marine fish resources , post-harvest technology, social institutions for fisheries and marketing. in economics. In general, fish can be understood as finned vertebrates, which breathe with gills and live in water. Meanwhile, another definition is biological resources that can perform recovery through a reproductive process, so it is better known as renewable resources. While fisheries d a pat defined as all business activities of catching or farming fish. For a larger meaning, fisheries are understood as all activities related to the management and utilization of fish resources and their environment, starting from before the production process, at the time of the production process, all management activities to marketing the products, which are carried out in a fisheries business system, the provisions of the Law on Fisheries No. 31 of 2004. Experience shows that the field conditions of fishery systems are very diverse, including because:

1) the diverse interests of all stakeholders often lead to conflicting interests,

2) growing religious groups of fishermen along with the dynamics of their interactions with the household and community sectors.

3) the formation of the social structure of society mem influence i condition fishery

4) various types of fishing gear technology used by fishermen,

5) information dynamics and fisheries extension, dissemination and practice visits were very fast and fundamentally,

6) There is still an element of uncertainty in each component of the fishery system that is built [6]

2. F isheries Public System

Fishery community systems, especially those in coastal areas, can be understood as all life arrangements that exist in coastal communities, past, present and future in a coastal area with the main activity of fisheries business extensively with the aim of community welfare. The profession whose main activity is fishing is often known as a fisherman. The fate of a fisherman is closer to the following characters:

1. Professions that are far from access to welfare support include microfinance institutions, technical guidance, work safety and comfort assistance and other non-formal educational institutions.

2. Professions that are less accompanied by other elements and components of society. Feeling far from the social capital that is formed in the community. At least in terms of population, education and health. Of the population can be seen from the number of residents, population density, gender ratio, the projected number of births, Population Statistics, Employment and Demand According to Gender. Transmigration by Destination and Type of Transmigration. From the educational side, it can be observed from the ratio of teachers and students, schools and students as well as teachers and schools. In terms of health, namely the number of hospitals, the number of health centers, the number of supporting health centers, mobile health centers, Posyandu and maternity centers, the number of health workers and others.

3. Profession less attention that legally d a r i government. The future as a fisherman is very much determined by the character of his own fishery business. Far from job welfare guarantees, work accident insurance and insurance, career path guarantees and so on.

4. Professions that have not been properly assisted in terms of cultivation results and the catch they get. Whether related to cultivation or the process of business results, business sharpening, processing of business results and even in terms of marketing the results of the business.

5. The profession is poor in professional information and its development, poor in terms of training and visits to various regions as a means and process of learning.

6. A dry profession against spirituality and social and cultural guidance of religious communities in an orderly manner. This can be seen from the religious facilities and infrastructure, the number of people who left for the pilgrimage, the criminal and civil cases that occurred. High rates of marriage, divorce, divorce and reconciliation.

7. Profession that is poor with information on changing times and the speed of changes in cultivation and fisheries technology and institutional changes.

8. A poor profession will regenerate and organize social communities. The younger generation is reluctant to make the fishing profession an option for their future. The younger generation is not yet convinced that the world of fisheries can provide a better life support for the future.

In this regard, it is suggested that the profession of fishermen should be parallel and in line with other professional career paths. A fisherman should also have the opportunity to become a servant of the State or ASN, TNI-POLRI. Fishermen should also have own positions and ranks, have the duty and the right to devote himself to the State formally or informally berk a Itan the fishing world widely. The fishing profession must be as follows:

1. A profession that can guarantee a better level of welfare from time to time. Supported by an official financial institution in the framework of financing its fishery business unit. Has the right to government technical guidance, both formal and informal. Assistance for work safety and comfort as well as support from other non-formal institutions.

2. A profession that is assisted in terms of population, education and health as well as other life activities.

3. Professions whose welfare is guaranteed, work accident insurance and insurance, career path guarantees that are not determined by the catch and / or the results of the fishery cultivation.

4. Professions that must be properly assisted in terms of cultivation results and the catch they get. Whether related to cultivation or the process of business results, business sharpening, processing of business results and even in terms of marketing the results of the business.

5. A profession that has a lot of professional information and its development, varies in terms of training and visits to various regions as a means and process of learning.

6. A profession that always gets spiritual shower and socio-cultural guidance of religious communities in an orderly manner.

7. A profession that is always supported by information on changing times and rapid changes in aquaculture and fisheries technology as well as institutional changes.

8. A profession that is an idol for the younger generation and a pride for social organizations.

3. Fisheries M anagement S ystem

The fisheries management system can be defined as an attempt to regulate overfishing, which at least includes: local .

1. fisheries planning and policy,

2. fisheries development management,

3. fisheries research and development.

The basic hope is that every fisherman must be able to make and compile a business development plan and his own profession by responding to existing fisheries policies. When fishermen experience various obstacles in planning and developing the fishing profession, then there must be agents from outside their scope to help them. Assistance can come from fishermen's partners or from the government. Fishery planning includes at least the following:

1. mental preparation and business capital in fisheries with a high enough risk

2. calculate and control the level of risk that will be faced and plan all elements of uncertainty in doing fisheries

3. planning and preparing markets for fishery products and absorption

4. planning and preparing production facilities such as labor, technology to be used and so on.

5. Planning and preparing professional management

In the field of fisheries development management, the government should also encourage the fisheries development process to be faster. Encouragement for fisheries development can take the form of:

1. granting business credit

2. support for the sustainability of fisheries resources widely

3. provisions of the rules of the game in the pro fishery sector

4. support system and post-harvest technology

5. certainty and maintain the stability of fishery market prices

6. the overall pattern of fisheries community development

Conclusion

It is still clear that the concentration of poverty in certain coastal areas shows that development reorientation is important to observe. Coastal areas with high poverty rates to be a concern with how to consider back development strategy that not only oriented to the high growth rates alone, but also must consider the level of distribution of economic growth in the region other coastal areas. The distribution of economic activity should be more equitable throughout the development area, based on the development of resources in the region. For coastal areas, the development of the fisheries sector in a wider area should get more attention and get more encouragement. For this reason, the conception of the development of the productive fisheries sector must be one of the development priorities in coastal areas.

The development of the fisheries productive sector includes at least three things, namely: 1. Natural fishery system, 2 fishery community systems and 3. Fishery management system. In the field of fisheries development management, the government should also encourage the fisheries development process to be faster. Encouragement of fisheries development can be in the form of: 1. Providing business credit, 2. supporting the sustainability of fishery resources in a broad manner, 3. stipulating the rules of the game in the pro fishery sector, 4. support

for systems and post-harvest technology, 5. certainty and maintaining the stability of market prices fisheries and 6. comprehensive pattern of fishery community development

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Thinking Process of Smp Students Completing Trigonometry Based On The Van Hiele Theory

Laili Nurul Fitiyah, Umy Zahroh[1]

Introduction

Learning geometry is very important because it can foster logical thinking skills, develop problem-solving skills, and provide reasons and can support many other topics in mathematics [1]. The need to study geometry according to Usiskin, namely: first, geometry is a science that connects mathematics with the real world, second, geometry is the right science to describe other mathematical ideas, and the three geometries can also be used to show other examples of mathematical systems [2]. From this explanation, the role of geometry in the field of mathematics is very strong and not only guides students' thinking processes but also strongly supports other topics in mathematics. So all students, especially junior high schools (SMP) should understand geometry well and correctly.

The National Council of Teaching of Mathematics (NCTM) in Principles and Standards for School Mathematics in 2000, said that the objectives of learning geometry in secondary schools are, among others, so that students can: first, describe clearly, classify and understand the relationship between types of dimensional shapes two- and three-dimensional using their definition and properties. Second, understand the relationship between the angle, side length, circumference, area, and volume of the same shape. Third, making and criticizing inductive and deductive arguments regarding geometrical ideas and relationships, such as the congruence, similarity, and relationship of Pythagoras [3].

The results of the report Trends in International Mathematics and Science Study [TIMSS] (2011) explained that level VIII students in 2011 showed the average scale score of students' mathematical abilities in Indonesia was ranked 37 out of 43 countries. Indonesia's ranking is even below other ASEAN countries such as Singapore, Malaysia, and

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Thailand [4]. The report also shows that students' geometry skills in Indonesia are lower when compared to other mathematics materials such as algebra, numbers and data, and chance. Many factors cause low student achievement in geometry, one of which is the delivery of material and the level of student ability in receiving the material given. Learning geometry needs to consider the level of thinking of students in geometry.

The results of research conducted by Detrick Venda Falupi and Soffil Widadah from 32 students of class VIII C of MTs Negeri 1 Sidoarjo, 12 students or 37.5% of whom were at level 0 (visualization) were able to recognize the names of triangular and rectangular flat shapes, 18 or 56.25% of students at level 1 (analysis) can recognize the names of flat shapes and can mention the characteristics of flat shapes in full by paying attention to the components, and 1 or 3.125% of students at level 2 (abstraction) can understand the same at level 1 and able to understand the equivalent form of a given definition, and 1 or 3.125% of other students at level 3 (deduction) at this level can understand like level four and can use and choose the correct theorem. From these results students do not like problems with solving using proof, students solve more problems that are presented visually than verbally [5].

Based on the research results above, it shows that the students' geometric ability is still relatively low. The causes of low students' geometrical skills include the low understanding of students' concepts and thought processes in solving problems, the treatment is given by the teacher (methods, models, learning approaches used by the teacher) tends to be the same for all students, while students' way of thinking and learning is different, many students do not pay attention to the process of solving geometry problems in learning activities, which results in lower math scores than other subjects.

Van Hiele's theory is a theory that discusses the process of student development in studying geometry. Students studying geometry experience the development of thinking skills through certain levels. Van Hiele said that there are five levels of thinking in children in the field of geometry, namely: level 0 (visualization), level 1 (analysis), level 2 (informal deduction), level 3 (deduction), and level 4 (rigor) [6].

Good geometry learning must be following the child's abilities. Children's abilities can be seen from the thought process and the application of skills in solving geometric problems. In this case, the application of van hile's theory can be a solution in overcoming students 'difficulties in solving problems in geometry, because the theory *of Van Hiele* explains the development of students' thinking in learning geometry [7].

Mayberry said that *Van Hiele's* theory was a theory developed by two Dutch educators, Pierre Marie *Van Hiele* and Dina *Van Hiele*-Geldof, which explained the development of students' thinking in learning geometry. Students will go through five stages of thinking development in learning geometry, namely stage 0 or level 1 (Visualization), stage 1 or level 2 (analysis), stage 2 or level 3 (relational/informal deduction), stage 3 or level 4 (deduction/deduction). formal deduction), and stage 4 or level 5 (rigor) [8]. Each of these levels describes the thinking ability of students in solving geometry.

Based on this description, there are differences in students' thought processes that allow differences in understanding the concept of the material. This makes research on the level of thinking of students in solving geometry problems, especially triangles. So that the results can be used as a reference for teachers in knowing the thinking process of students in solving geometry problems.

Discussion

The results of research regarding the thinking process of class VIII students of SMPN 3 Kedungwaru in solving geometry problems are based on the theory of *Van Hiele*.

1. **Thinking Process of High Ability Students Based on Van Hiele's Theory**

   At the visualization stage, high-ability students, namely S1 and S2, can correctly group various triangular shapes into two groups. Both of them were able to group various shapes into two groups, namely triangles and not triangles correctly and correctly, and strengthened by the results of interviews. Even though the answer to the S2 test does not provide information on the group that is not a triangle, it will still name all the shapes that are not included in the triangle group. However, when the two students interviewed were able to

provide clear answers about the shapes that were included in the triangle group and not the triangle.

Based on this, students can identify the building based on what they see. So high-skilled students can reach the visualization stage. This is in line with Renaldi's research that students can already identify shapes based on the shapes or properties they know and in the process of thinking students at level 0 tend to recognize geometric shapes from visible visual characteristics [9]. This means that students who have high thinking skills can reach the visualization level.

Furthermore, the analysis stage is where high-ability S1 and S2 students can mention the nature of the triangle shape. From the results of the interview, the two students were able to answer questions confidently and clearly and add characteristics that in their answer sheets were less clear. However, the first student reduces the characteristics written on the answer sheet, namely all angles when added up to 180°, even though the student's answer is correct.

Based on this, students can use models in stage 0 to explore various properties of triangular shapes, students focus more on properties than just identification. Students begin to look for the characteristics of why a certain group of pictures is included in a group of triangles and not a triangle so that the properties can characterize and contrast each group. This is following the results of Falupi's research that students at level 1 (analysis) have been able to state the nature of the shape completely by paying attention to its components [5].

The last stage is informal deduction, at this stage high-ability students can make definitions and sketch pictures, students can answer questions correctly. When the students were asked again during the interview, the students were able to make a definition of the list of characteristics that the students made, the students were also able to show the part of the ladder that was leaning against the wall which was the hypotenuse of the triangle. Meanwhile, in the calculation process students are also able to explain the process that has been done. For the last question, the first student's answer was not correct, but when the interview was able to rework it correctly without confusion. For the second student during the test, the written answers were correct, and when the interview was asked the students were able to explain clearly and precisely.

Based on this, students can continue the classification of the model with a focus on defining traits, and students can solve problems that involve the characteristics of the shapes they recognize. Based on this, high-ability students have been able to reach the informal deduction stage. This is in line with Falupi's research that students who have high thinking skills can understand the equivalent form of a given definition [5]. Also in the research of Iyad Mulyadi that high-ability students can be at level 2, namely informal deduction [10]. Similar to the research of Afifudin and Ahmad Suton, students with high abilities in solving geometry problems can express what is known and asked in their language, and in answering tend to use concepts that have been studied and can explain the steps taken in solving the questions. [11]. Thus high-skilled students have been able to reach stage 0 (visualization), stage 1 (analysis), and stage 2 (informal deduction).

2. **Thinking Process of Medium Ability Students Based on Van Hiele's Theory**

At the visualization stage, students with moderate abilities, namely S3 and S4, can group the shapes presented into two groups, namely the triangular group and not the triangle, as well as when interviewing the subject can answer questions clearly and accurately, even though the students First, there was an error in answering it turned out that after the researcher made sure to ask the students again, they stated that the answer was wrong and immediately replaced the answer with a more correct one.

Based on this, students can identify shapes based on the shape they see, meaning that students with moderate abilities have been able to reach the visualization stage. This is in line with Muhassananah's research that students with moderate abilities can tell the characteristics in the image [7]. This is in line with Eka's research, that the thinking process of students who are at the level of analysis tends to recognize the geometric shapes of visible characteristics and their properties [9]. Thus, students with moderate abilities were able to reach stage 0 (visualization).

At the stage of analysis, students with moderate abilities were able to correctly name the properties of the triangular and not triangular groups, students in mentioning the nature of the triangle were less

specific, but when interviewing students were able to answer with right and right. In the interview, when asked again about the nature of the triangle group, the students were able to answer several properties of the triangle. Based on this, students can use models in stage 0 to explore various characteristics of shapes. That is, students with moderate abilities have been able to reach the analysis stage, this also agrees with Muhassanah's research that students' skills at the analysis level can tell the properties in the picture [7]. This is also in line with Mulyadi's research that male students who have moderate abilities are at level 1, namely analysis [10].

Finally, in the informal deduction stage, at this stage students can make definitions and make sketches of triangles and solve problems appropriately, even though the answers are less specific. There was an error made by S3, namely, when making a sketch, students did not add a description of the size to the drawing they made. This was also seen during the interview, when students were asked again about their work, students could not explain what they wrote, so students' answers were not clear. However, students are being able to solve the problem at first and can explain again, but students cannot explain the ladder sketch. While the second student is unable to explain anything about the answers written even though the steps are written correctly, but the result is not quite right.

Based on this, students can continue to classify models with a focus on defining traits, but students have not been able to solve problems that involve familiar wake-up characteristics, meaning that students with moderate abilities have not been able to reach the informal deduction stage. It also agrees with Peter's research that the thinking process of a medium capable subject indicates his thinking in solving problems related to the properties of geometry to identify shapes based on the shape he sees as a whole but has not been able to solve the problem of proof related to the properties of geometrical constructs [12]. Thus, students with moderate abilities have not been able to reach the informal deduction stage. Thus, students with moderate abilities can achieve 2 of the 3 stages that should be achieved, namely stage 0 (visualization), and stage 1 (analysis).

3. Thinking Process of Low Ability Students Based on Van Hiele's Theory

At the visualization stage, students with low abilities, namely S5 and S6, can group various shapes into two groups, namely the triangular group instead of the triangle appropriately. Likewise, when interviewing students were able to explain the shapes belonging to the triangle group and not the triangle, even though the second student only showed the shapes that were not the triangle group, the student's answers were correct.

Based on this, students can identify shapes based on the shape they see, meaning that low-ability students have been able to reach the visualization stage. This is in line with Eka's research that the thought processes possessed by students who are at the visualization level tend to recognize geometric shapes and visible visual characteristics [9]. He also agrees with Mulyadi's research that low-ability students are at level 0, namely the level of visualization [10].

Meanwhile, at the analysis stage, students with low abilities have not been able to list the characteristics of the wake-up group in the previous question, on the answer sheet students write a triangle that has only 3 sides on the list of properties, and there is no list of specific characteristics written by the two low ability students. However, when the first student interviewed added answers about the nature of the triangle shape and slightly increased the clarity of the student's answer, it still lacked specific answers from the first student. Meanwhile, the answers are given by the second student only mentioned that the triangle has sides and line segments. From the answers during the test and interview, the students' answers have not focused on the properties of the triangle.

Based on this, low-ability students have not been able to use models at stage 0 (visualization) to explore various characteristics of shapes. What is not in line with Peter's research is that the thinking process of students with low abilities in solving problems has been able to reach level 1, namely being able to identify shapes based on the shape they see as a whole, describing an object based on its properties.

The last stage is the informal deduction stage, at this stage the thinking process of low-ability students regarding the questions that are solved, the students have not been able to make a definition from

the list of traits made. Students instead write the formula for the area of a triangle in defining the properties of a triangle, when the first student interview can fix the answer more precisely, but the answers made do not include the list of properties that are written, while for the second student has not been able to fix the answer, the second student is still confused about defining about the triangle. Likewise, with sketching and problem solving, the two students were not able to sketch triangles correctly, students also did not increase the size of each part of the triangle, students were also unable to solve problems related to triangles, when interviewing low-ability students also admitted that they had difficulty working on questions.\

Based on this, it can be said that students have not been able to continue the classification of the model by focusing on defining traits, and have not been able to solve problems that involve familiar traits. So the thinking process of low-ability students has not reached the stage of informal deduction. This is not in line with Afifudin's research that students' thinking processes at level 2 (informal deduction) in solving problems can express what is known or asked in their language, and in answering tends to use concepts that have been learned and can explain the steps. taken in solving the problem [11]. However, it is in line with Iyad Mulyadi's research that students with low abilities only at level 0 (visualization) have not been able to reach the level of informal deduction [10].

Thus low-ability students are only able to reach 1 stage according to theory, *Van Hiele's* namely stage 1 (visualization), low-ability students have not been able to reach 2 other stages that should be achieved, namely the informal analysis and deduction stage.

Conclusion

Based on the results of research on the thinking process of students based on Van Hiele's theory, it can be concluded that, first, the thinking process of high-skilled students in solving geometry problems based on theory is *Van Hiele's* that students can reach 3 stages of theory *Van Hiele's*, namely the visualization stage, the analysis stage, and the deduction stage. informal, because it can identify a shape, mention its nature, and make definitions and solve problems involving the characteristics it recognizes. Second, the thinking process of students with moderate abilities is that students of this type can reach

2 stages of theory *Van Hiele's*, namely the visualization stage and the analysis stage, because they have identified a shape, and can mention its nature. Third, the thinking process of low-ability students is that these students are only able to reach one stage of theory *Van Hiele's*, namely the visualization stage, because they are only able to classify shapes, without being able to mention their nature, and have not yet been able to define or solve problems related to the nature of triangles.

After knowing the description of the student's geometric thinking process, the results of this study can be used as reference material for the teacher in determining the appropriate and effective way of teaching by the students' geometrical abilities. Teachers can develop appropriate methods and strategies, and design lessons, especially on geometry material to improve students' basic skills in learning geometry, and deliver material by the stages of theory *Van Hiele's*.

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Legal Empowerment on The Utilization of The North Coast of Jakarta in The Era 5.0 Based on Paradigm Participatory Perspective

Untoro[1] and Bambang Sukamto[2]

Introduction

Ecologically like other coastal areas, the northern coastal waters of Jakarta is transition area where marine and terrestrial ecosystems meet. There are two criteria to set the boundary of coastal waters; namely, waters towards the sea and landward waters. Waters towards the sea includes parts of the ocean waters that are affected by natural processes that occur on land. It includes freshwater flow from rivers, sedimentation, and human activities on land, such as agricultural intensification, waste disposal, deforestation, and settlement expansion. Meanwhile landward waters are the part of land which is both dry and submerged by sea water, and is still influenced by the physical characteristics of the sea such as seawater seepage, waves, tides, and waves [1]. Coastal management requires good governance so that it can be used sustainably. Good governance is marked by the implementation of regional autonomy law in 2004.

As regional autonomy era begun, there were division of coastal and marine management, i.e. among the central, provincial and district/ city governments. The change in governmental system, from centralization to decentralization, has affected coastal waters management. The regional autonomy law is one of the results of legal reform in Indonesia that began in 1997-1998. The management process was divided into two, namely natural processes and non-natural processes (human activities). Besides, coastal management requires multi sector coordination, namely service, industry, fishery stakeholders. There is a need for strong coordination between local and central governments, between marine and terrestrial ecosystems, as well as between

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management and science. This coordination is intended to increase the welfare of the community. During planning stage, which is essential in coastal waters management, Zoning Plan for Coastal Areas and Small Islands (Rencana Zonasi Wilayah Pesisir dan Pulau-Pulau Kecil/ RZWP3K) was drafted.

Zoning Plan for Coastal Areas and Small Islands (RZWP3K) is separated into provincial and regent/ city plans. Besides, the plan needed harmonization and synchronization with regional spatial plans at provincial/regency/ city levels (RTRW Prov./Kab./Kota). Harmonization is intended as an effort to prevent overlapping regulations. For this reason, the RZWP-3-K is harmonized and balanced with the RTRW Prov./Kab./Kota. Synchronization means conformity between lower and higher statutory regulations. It is carried out by the Supreme Court through judicial review mechanism. Related to this, Prof. Lazarus Tri Setyawanta R stated that the presence of specific law to regulate coastal waters management is important due to four reasons. First, the law is intended to integrate various sectoral plans. Second, it is required to overcome overlaps in management. Third, it may overcome conflicts of use and authority. Fourth, it provides legal certainty, in accordance with the needs and development of community values amid developmental changes [2].

Provincial RZWP3K is necessary to solve the problem of coastal areas utilization. Without this guideline, utilization activities tend to be exploitative which threatens the environmental sustainability of coastal areas. Therefore, the preparation of RZWP3K must be based on the principle of community participation or empowerment. The development of economic activities in coastal areas today has had negative impacts in the form of physical damage to the ecosystems and polluting coastal and marine areas. This condition gets complicated due to non-technical problems such as conflicts over the use of coastal waters, such as reclamation activities on the north coast of Jakarta. For this reason, it is important to strive for traditional fishermen empowerment and legal empowerment. Note that participation is a qonditio sine quo non for empowerment, which means participation is an obligatory requirement to realize empowerment. Because participation means a shift in decision-making power from the more to the less powerful, disadvantaged, and less influential group [3]. Community participation is one of the principles considered in compiling RZWP-3-K. It means

RZWP-3-K is compiled based on the people's law, i.e. laws made by and according to the dynamics of community or those that develop within legal awareness and legal culture of society [4]. This concept means, the law should not be implemented strictly and rigidly (mechanistic action model) for it will cause conflict and the society will be alienated from its environment [5].

The vulnerable community of being alienated from their environment in the context of coastal waters spatial use are the traditional fishermen of Muara Angke, North Jakarta, who use boats with a size of up to 10 gross tonage (GT) to catch fish. It means, they have limited ability to adapt to the dynamics of development in coastal waters. Therefore, normatively, traditional fishermen are among the stakeholders to get attention. Based on provisions of Article 16 of Law No. 1 of 2014, everyone is obliged to have a location permit for utilizing coastal waters and small islands. The permit, which is granted based on zoning plans, acts as the basis for issuing management permit. Another requirement for granting location permit is commitment to preserve coastal ecosystems, traditional fishermen, communities, national interest, and the right of peaceful passage for foreign ships. It means, this norm requires the realization of integration principle in the use of coastal waters by integrating multi-sector interests, involving related regions and stakeholders. In addition, this norm also calls for the realization legal certainty and justice, since granting location and management permits is based on the prevailing laws and regulations (zoning plans). A sense of social justice is taken into consideration to protect the rights and obligations based on legal certainty.

The description above leads to solving the main problem, namely how to empower the traditional fishermen of Muara Angke, North Jakarta following the dynamics of coastal waters spatial use. How is the legal empowerment of coastal waters utilization based on participatory paradigm perspective?

Empowering Traditional Fishermen of Muara Angke, North Jakarta in the Utilization of Coastal Waters

Empowerment means gaining access to resources and the strength to earn a living. It is needed for the marginalized community such as traditional fishermen to realize social change and to be able to voice their influence both locally and nationally. Because empowerment is

the driving force required for social change. As stated by Hulme and Turner [6], that empowerment may become the driving force for the powerless to be able to exert greater influence in politics, both locally and nationally. This may occur through social change. Thus, empowerment represents both individual and collective character. Borrini suggested the concept of empowerment based on environmental perspective, which include securing access and sustainable management of natural resources.

Chambers relates empowerment to poverty, in his book entitled "Rural Development: Putting the Last First". He suggested the concept of deprivation trap. Chambers argues that there is a link between helplessness and other trap dimensions. Powerlessness makes people even more vulnerable to sudden requests for loan repayments or to bribes during a dispute. It complicates legal justice process for the abuse, limits the access to state resources, and causes loss of bargaining power. Helplessness can be overcome by: "…enabling and empowering the poor through "reversal in management' of dominant paradigms of development which involves shifting power and initiatives downwards and outwards".

This effort is important because poverty can occur due to denial of social and economic empowerment. Thus, it is not a mere natural condition. Empowerment aims to create a civilized, fair humanitarian atmosphere, marked by changes in the disadvantaged group, from becoming the object to subject in terms of personal, social, national, state, as well as economic aspects. The change, from the helpless to the powerless, makes them have wider access to natural resources. In the context of utilizing Jakarta's north coastal waters, there are 200 traditional fishermen, precisely living in Muara Angke, North Jakarta. They are the members of traditional fishing community, divided into 20 groups with 10 members each. The level of education varies from not completing elementary school to completing high school. They need empowerment to have access to several coastal resources, namely biological, non-biological, artificial, environmental services. Referring to the concepts of Hulme and Turner, Borrini, Chambers as mentioned above, many can be done to empower the traditional fishermen so that ecological, economic, socio-cultural, political, defense and security sustainability can be achieved in the Society 5.0 era. It also demonstrates the achievement of sustainable development

goals. Ecological sustainability is a prerequisite for the implementation of development and life sustainability [7].

Ecological sustainability is very much influenced by the preservation and maintenance of ecosystems. There are three important factors to maintain the ecosystem, i.e. supporting capacity, assimilative power and sustainable use of resources is restored [8]. Supporting capacity is related to the ability of the environment to support human life, living things and the balance between humans and other living things.

Legal Empowerment of Coastal Waters Utilization based on Participatory Paradigm Perspective

Legal empowerment in the perspective of a participatory paradigm outlines benchmarks and defines the accuracy of legal empowerment for the use of coastal waters. In this case, the participatory paradigm is the basis for new thinking, because in addition to the participatory paradigm there were positivism paradigm, the post-posivism paradigm, the constructivism paradigm, and the critical paradigm. The study of legal empowerment in the perspective of a participatory paradigm cannot be separated from studies on ontology, epistemology and methodology. This is because a paradigm is an "umbrella" philosophical system which includes a particular ontology, epistemology and methodology. Each consists of a series of basic beliefs or universal views that cannot be interchanged with basic beliefs of ontology, epistemology, and other paradigm methodologies [9]. Participatory paradigm aims to achieve liberation through three ways, namely: increasing the political capacity of the community, critical awareness, and social change.

Ontology of Legal Empowerment on the Utilization of Coastal Waters based on Participatory Paradigm

Ontology questions the nature of reality. It offers various answer to a question on the nature of reality. Ontology perceives legal product not merely as a set of norms positivated in statutory regulations, but rather seeking the value. The aspect of norms appears and manifests itself during legal drafting. Meanwhile, value is the psychological or inner aspect lies behind the norm. Therefore, law is incomplete when it is only seen as a set of norm. In the perspective of participatory paradigm, ontology considers the mental aspects (thoughts) and culture behind the law. Thus, understanding legal empowerment requires not

only comprehension on the state law, but also assessing the involvement of traditional fishermen.

Legal empowerment, in other words, requires involvement or participation of values that live in the midst of traditional fishermen utilizing coastal waters. According to Cohen and Uphoff, the role of community participation in development are: a) participation in decision making, b) participation in implementation, c) participation in benefits, and d) participation in evaluation [10]. Participation in decision making include in attending meetings and discussion on the use of coastal waters; involvement of fishermen in determining their scale of priority. Their participation during planning stage is also necessary for the next phase. As an example of participation in implementation, fishermen may utilize coastal areas as regulated. Participation in benefits, for example, their willingness to accept, utilize and preserve the results of development. Participation in evaluation, for example, the opportunity given to fishermen to supervise the utilization of coastal waters and small islands.

This is intended for the law to be empowered and developed in a sustainable manner in order to ensure justice and to create prosperity [11]. For this reason, legal empowerment shall consider how the law is empowered and what the positive impact of legal empowerment are for fair utilization of coastal waters. The determining elements of legal empowerment are: 1.) the government and state administrators, 2.) the compliant community (stakeholders), 3.) the spirit to empower the law. Fair government officials and state administrators are essential, considering that law represents values that live in a society. Therefore, state administrators shall immediately take action on regulations which injures the sense of justice. Coastal areas which are rich in natural resources may benefit the people only if the state is able to enforce the laws.

Compliant stakeholders have proven themselves to be good citizens in utilizing coastal waters based on Pancasila values. As stated by Notonagoro, they have shown [12]:

Legal compliance based on legal justice. In the constitution, it is regulated in Article 27 paragraph (1).

Ethical compliance based on the second principle of Pancasila.

Religious observance based on the first principle of Pancasila, Article 29 paragraph (1), the third paragraph of the Preamble of the 1945 Constitution.

Absolute obedience.

Realizing fair leaders and community (stakeholders) who adhere to the laws regarding the use of coastal waters space requires enthusiastic practice. Because justice and obedience are meaningless without practice. Quoting Soepomo, the spirit of state administrators is necessary for good governance and state continuity. Even if in substance they are familial, the laws will be meaningless in practice if they are contrary to the spirit of state administrators [13].

Legal empowerment requires community involvement and participation. Therefore, in this era of decentralization, legal empowerment reinforces democracy and good governance in the regions. In the context of spatial use of coastal waters, study on the involvement of traditional fishermen is necessary to eliminate the unnecessary. First, it is useful to minimize community rejection on regional policies, especially regarding utilization of coastal waters; second, to prevent unfair processes during policy implementation in the region, especially regarding spatial use of coastal areas. In addition, legal empowerment is beneficial to marine environmental services, sustainability of coastal resources, pollution prevention, and public health [14].

Epistemology of Legal Empowerment on the Utilization of Coastal Waters based on Participatory Paradigm

Epistemology [15] of participatory paradigm perceives the laws not as standalone reality, but studying the social experiences of targeted individual or informants. Thus, rather than studying written laws and regulation, legal empowerment requires interaction with targeted community, namely traditional fishermen. Because it concerns over interaction, traditional fishermen shall be understood. Assessing the involvement of fishermen must considered as part of legal empowerment. Since the law is what exists within the community, it should not only be conceptualized as state law for legal objectives to be achieved, namely justice and improved welfare.

Fishermen comprehend laws and regulation through experiences. Thus, in order to capture how the law is enforced and applied, the researcher not only studied related literature, but also met the fisherman face to face and hear their experiences in person. This is in conjunction with dialectical exchanges or communicative relationships carried out through in-depth interviews.

Axiology of Legal Empowerment on the Utilization of Coastal Waters based on Participator Paradigm

Axiology is an important factor in participatory paradigm. Since legal empowerment is included in practical knowledge, it shall be put into practice for stakeholders to strive for just and fair coastal waters utilization. In this context, axiological aspect is related to justice (gerechtigkeif), legal certainty (rechtssicherheif) and expediency (zweckmabigkeit). These are legal purposes as stated by Gustav Radbruch.

Conclusion

1. Empowerment is essential for traditional fishermen to adapt in highly dynamic of coastal space utilization. The aims is to create just and civilized humanity. The socially disadvantaged group need assistance to undergo transformation from being the object to become the subject of terms of personal, social, and governmental aspects which include in economic, political, social and cultural aspects. Social change helps the powerless group to have access to natural resources.

2. Legal empowerment regarding the utilization of coastal waters based on participatory paradigm cannot be separated from the study of ontology, epistemology and methodology.

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Customer's Response to The Role Brand Images, Prices, Distribution Channels, Promotions In Purchase Decisions

Zakiyah Zahara[1]

Introduction

Currently, the development of the business world is growing very rapidly, one of which is in the culinary business. This business is related to human food needs. Food is one of the basic human needs or basic needs. Food is a basic need, so the fulfillment of food is an absolute thing for humans who want to keep their life going. Human activities today are so dense that humans are looking for practical ways to meet food needs. One of the methods taken to meet food needs is by using culinary services. Food is no longer a consumption product to meet human biological needs alone. Food is now becoming a new lifestyle in society.

Based on the explanation above, there are several things that indicate this. This can be seen at least from the consumption pattern of the people which has begun to shift to fast food and drinks. In 2006, when the roadmap for creative industries 12 was drawn up, the culinary sector had not yet entered into one of the strategic industries that would be developed. There are only 14 sub-sectors that are the government's main concern. At that time, the fashion and advertising industry was the largest contributor to the growth of the creative industry in Indonesia. However, in 2011, that position shifted and was replaced by the culinary industry which has entered into the 15th sub-sector in the creative industry. The culinary sub-sector provides the largest income for the creative industry in Indonesia, or around 32.2% of the total contribution of the creative industry to GDP in 2011 or around 169.62 trillion. Only then followed by fashion and advertising".

The culinary business in Palu City is a promising form of business. Various types of snacks have sprung up with a variety of interesting

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creativity. Traditional snacks can be created into preparations that have high taste and value. One of the traditional snacks that we often encounter is fried banana which relies on chili sauce as its partner. For this reason, new innovations are needed in processing these bananas so that the presentation of bananas is not only like fried bananas in general, because of this, people see bananas as an ordinary snack. This has caused many business people to innovate to create products with various shapes and flavors so that people don't get bored with bananas that have been on the market such as fried bananas.

A business that is experiencing development in Palu City, namely Pisang Nugget BananaBim, started its business image on January 29 2018 until now. BananaBim is a contemporary snack made from banana, BananaBim serves two types of plantain and banana gebok which will be processed first. The emergence of this culinary delights allows consumers to choose from fried bananas to banana nuggets with a variety of flavors and toppings on top. BananaBim not only presents a variety of flavors and toppings, but each flavor variant has advantages that other businesses do not have, namely the flavors mixed on top of the banana nuggets are very melted, from the melting of the banana nugget snack flavors makes every consumer want to continue to make repurchases, and for potential BananaBim customers, of course there will be a mental curiosity to immediately taste the banana nugget snack BananaBim which is famous for its melting variants of flavors and toppings as a complement.

Table 1. The Sales of Banana Nugget in 2018

Period	Number of Boxes	Sold per Month	Percentages
February	250	7.000	-
March	250	7.750	10%
April	300	9.000	36%
May	300	9.300	3,3%
June	300	9.000	3,2%
July	350	10.850	13,0%
August	380	11.780	8,5%
September	380	10.260	1,74%
October	-	-	0%
November	450	13.500	8,4%
December	500	15.500	14%

It can be seen that the average sales increase although sometimes the difference is only slightly from the monthly average, namely from February to March it reached a 10% increase in sales results, until April-September the increase was different. However, at the end of September-October the sales were canceled as Palu City was experiencing a disaster. In November-December BananaBim started to operate again and experienced an increase in sales by an average of 8.4% to 14% of sales. That way, the average box sales from February to December reached 36.91%. Kotler and Keller defined that brand is a name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers to differentiate them from those competitors [1]. Brand is a name, term, sign, symbol, design or a combination thereof, which is meant to identify its competitors.

Kotler and Armstrong stated that price the amount of money charged for a product or service, or the sum of the value that customers exchange for the benefits or having or using the product or service[2]. It means that the price is the amount of money spent. for a product or service. An amount of money that is exchanged by consumers to obtain benefits and ownership of the use of a product or service. Tjiptono added that distribution channel (place) refers to various marketing activities that attempt to facilitate the delivery, delivery, or distribution

of goods and services from producers to consumers, so that they are as needed[3].

Promotion is a type of communication that provides a convincing explanation for potential consumers about goods and services[4]. The purpose of promotion is to get attention. Educate, remind, and convince potential customers. Purchasing decisions are a part that is influenced by financial economics, technology, politics, culture, products, prices, location, promotion, physical evidence, people and process. So, form an attitude for consumers to manage all information and draw conclusions in the form of responses that appear what products to buy[4].

Discussion

Marketing mix is the set of tactical marketing tolls that the frim blends to produce the response it wants in the target market [2]. The marketing mix is a set of tactical marketing tools that incorporate the desired response in the target market. A brand or stamp is a sign or symbol that gives the identity of a certain service item which can be in the form of words, images or a combination of both [4]. Brand is an important factor in marketing activities, because the activity of introducing and offering a product or service is inseparable from a reliable brand. The component of brand image consists of three parts, namely 1.) the image of the maker (corporate image), which is a set of associations that consumers perceive to companies that make goods or services. Includes popularity, credibility, company network, as well as the use itself or its use, 2.) user image, which is a set of associations that consumers perceive to users who use goods and services. Includes the users themselves, as well as their social status. 3.) The product image is a set of associations that consumers perceive to a brand. Includes product attributes, benefits for consumers, and guarantees.

Marketing management is the art and science of determining target markets, maintaining and increasing the number of customers by creating, delivering and communicating superior customer value [1]. Price is the value of an item expressed in money [4]. There are indicators regarding prices that can influence consumer purchasing decisions (Purwati, 2012): 1.) payment flexibility, flexible payment methods, 2.) price competitiveness, the ability of product prices to compete. Distribution channel (place) refers to various marketing

activities that attempt to facilitate the delivery, delivery, or distribution of goods and services from producers to consumers, so that they are as needed [3]. The dimensions for the distribution channel variables in this study are: Market Coverage, Purchase Location, Product Adequacy. Promotions are activities that communicate product's superiority and persuade target customers to buy them" means promotion is an activity that communicates product excellence and persuades target customers to buy it [1]. Sales promotion is a short-term incentive to encourage the sale of products or services. Sales promotion is a means to encourage consumers to make purchases of a product or service [1].

There are several indicators that can be measured [2]: Coupons (coupons), giving coupons can make consumers come back and make a transaction. Rebates, the amount of discounted prices will be very successful for businesses and offers attractive discounts for consumers [2]. Social media is a group of internet-based applications that use web 2.0 ideology and technology, where users can create or exchange information on these applications. Some of the social media that are very popular and have millions of users in Indonesia are Facebook, Twitter, Instagram, Youtube, Blog, and others. Consumer behavior is the study of how individuals, groups, and organizations select, buy, use, and dispose of goods, service, ideas, or experiences to satisfy their needs and wants" that means consumer behavior. Their study of how individuals, groups of organizations choose, buy, use and how goods, services, ideas, or experiences satisfy their needs and wants.

There is a role simultaneously in the variables of brand image, price, distribution channels, promotion of the purchasing decision for BananaBim nuggets in Palu City. Brand Image partially has a positive and significant effect on purchasing decisions. Price (X2) partially has a positive and significant effect on purchasing decisions. Distribution Channel partially has a positive and significant effect on purchasing decisions. Promotion (X4) partially has a positive and significant effect on purchasing decisions.

All the dimensions of the variables in this study show low VIF values, all of which are below 10 and the tolerance value is more than 0.10. This means that the independent variables used in this research do not show any multicollinearity symptoms, so all of these variables can be used as independent / independent variables. The dots randomly spread and spread both above and below the number 0 on the Y axis

It can be concluded that there is no heteroscedasticity in regression models that regression models unfit for menganali sis Role of Imagery Brands, Prices, Distribution Channels, Promotions on Purchasing Decisions for BananaBim Nugget in Palu City.

The independent variables, such as brand image, price, distribution channel, promotion, have a positive effect on the purchasing decision for BananaBim nuggets in Palu City. The constant value is 1.683, meaning that if the independent variable (brand image, price, distribution channel, promotion) is 0 or constant, then the dependent variable (purchase decision) is 1.683. The regression coefficient variable brand image (X- 1) amounted to 0.057, meaning jik a brand image up one unit, then the decision of buying a banana nuggets BananaBim in Palu increased by 0.057. Recourse coefficient i variable price (X 2) amounted to 0,482, which means that the perception of price rises one unit, then the decision of buying a banana nuggets BananaBim in Palu increased by 0,482. The price variable is also the most dominant variable that plays a role in purchasing decisions. The regression coefficient variable distribution channels (X 3) amounted to 0,071, which means that if a distribution channel rose one unit, then the decision of buying a banana nuggets BananaBim in Palu increased by 0,071. The regression coefficient promotion variable (X 4) at 0, 172, meaning that if the sale was up one unit, then the decision of buying a banana nuggets BananaBim in Palu increased by 0, 172.

Based on the results of the multiple linear analysis test in Table 5 above, the significance value of F is 0.000, which means that the value is smaller than the implied value, namely $\alpha = 0.05$, then the hypothesis is accepted. This means that there is a simultaneous role in the variables of brand image, price, distribution channels, promotion of purchasing decisions for BananaBim nuggets in Palu City.

The Brand Image (X1) partially has a positive and significant effect on purchasing decisions. Price (X2) partially has a positive and significant effect on purchasing decisions. The Distribution Channel (X3) partially has a positive and significant effect on purchasing decisions. The Promotion (X4) partially has a positive and significant effect on purchasing decisions.

Conclusion

The role of brand image, price, distribution channels, promotion simultaneously has a significant effect on purchasing decisions for BananaBim nuggets in Palu City. De mikian role presented by each independent variable, has a strong relationship with the dependent variable purchase decision. Brand image has a significant effect on purchasing decisions for BananaBim nuggets in Palu City. Price has a significant effect on the purchasing decision for BananaBim nuggets in Palu City. Distribution channels have a significant effect on purchasing decisions for BananaBim nuggets in Palu City. Promotion has a significant effect on purchasing decisions for BananaBim nuggets in Palu City. It is known that the lowest respondent's response in the brand image is that the BananaBim nugget banana packaging is good. Researchers suggest to BananaBim to pay more attention to the packaging of BananaBim nuggets, in order to make new packaging so that the respondents' attention will increase when buying BananaBim nuggets because the BananaBim packaging is more attractive. It is known that the respondent's response is the lowest in price, namely, the price of BananaBim nuggets in accordance with the quality of the product. Researchers suggest to BananaBim that at the price set by BananaBim, they can improve their processed bananas, so that respondents still think that the price and quality of the product are not a problem when making a purchase. It is known that the respondent's lowest response is in the distribution channel variable, namely, BananaBim has a variety of flavors that have different coverage in each outlet. Researchers suggest to BananaBim to supply banana nuggets so that they can balance the large number of banana nuggets available at each BananaBim outlet with the crowds at each outlet. It is known that the respondent's lowest response is in the promotion, namely, the existence of the BananaBim banana nugget free toping promo, to the BananaBim the researcher suggests that there should be more to explain clearly the promos that are presented, so that consumers who see the promo do not misunderstand when making a purchase, because of the many responses. from respondents regarding promos conducted by BananaBim. Further researchers are advised to include other variables such as variables of service quality and product image and other than those used in this study, so that they can better review the problems that exist at BananaBim in Palu City. Besides that, it is

expected to use this type of qualitative research, in order to explain more in depth and be able to solve the problems found in BananaBim Palu City.

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SOCIETY 5.0

LEADING IN THE BORDERLESS WORLD

As a country with five major religion, and our first Pancasila stated to "Believed in God", the construction of spirituality is very important. Spirituality comes from within us that we have a higher calling to do what's good, what's moral, and what not from our belief system. By standing on these main principals of being a Moslem, we are keen on walking ahead to face the development of the technology without worry.

In preparing for the society 5.0, it is necessary for us to have a strong principle at hearts that based on our belief system. When we possess a strong spirituality, we have a tendency to be kind to other people. Kindness is the basis of practicing humanity. When we are not judging why someone do what they do, but rather inquire why, we value them as a human. Therefore, we practice humanity.

To face technological advancement, we do not need to be smarter than the technology. As its purpose is smarter than us, to help us, we are human, need to construct our spirituality and the humanity so that we won't be lost in the advancement of technology. We stand by our principle to face a fast-changing world driven by technologies. We will be a far more superior than those enabling technologies by instilling what we had all along, our belief and our ability to be kind.