The Existence and Education of Ceramic Craftsmen Society of Polutan Village in the 4.0 Industrial Revolution Era

Maria Katje Tupamahu¹, Kevin Hermanto Tupamahu², Rose Amnah Abd Rauf³, Romi Mesra⁴

¹Development Studies, Pattimura University, Indonesia
²Accounting Education, Pattimura University, Indonesia
³Faculty of Education, Universiti Malaya (UM), Malaysia
⁴Sociology Education, Manado State University, Indonesia
mariakatje44@gmail.com¹, kevintupamahu01@gmail.com², rose_amnah@hotmail.com³, romimesra@unima.ac.id⁴

ABSTRACT

This research is different from previous research where this research specifically wants to describe and reveal what the existence of the ceramic craftsmen community is like, which incidentally is still a lot of people who use traditional methods in a modern era and its relationship with the level of education of the community where the people can get jobs from all age. The research method used in this study is a qualitative research method in which researchers seek data in the form of explanations from informants and other relevant data sources. The data collection method in this study used unstructured interview techniques and half-involved observation in order to obtain valid data and in accordance with the research objectives. Teknik penentuan sampel pada penelitian ini yaitu menggunakan snowball sampling. Researchers use data analysis with data reduction, data presentation, and finally drawing conclusions or verification. The results of the research are as follows: (1) There are no “unemployed” people of all age levels; (2) People Prefer to Work as Ceramic Craftsmen so that few continue their undergraduate education; (3) Pulutan Village is Known as a Tourism Village for Ceramic Craftsmen in Minahasa; (4) Pulutan Village Ceramic Industry Needs Government Support To Further Develop; and (5) Pulutan Village Is Often Used As A Place To Develop Knowledge And Skills. The implication of this research is for the development of science, especially the discipline of sociology related to rural sociology, sociology of tourism, and so on as well as social science in general. Conclusion of this research are we can see that Pulutan Village as one of the tourist villages due to their tradition as ceramics and grain craftsmen is a village, very independent even the unemployment rate is very low.

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A. INTRODUCTION

Rural areas are one of the areas that have special characteristics where people are still very close in their social life, cultural values are still used and preserved continuously, then the location of the area is usually a bit far from the city, and the environment is around nature, which is still very beautiful, and many other features. Rural areas certainly have many special characteristics
where in addition to the natural environment that is still beautiful, it can also be seen from community activities in which social interactions are still close, then customs are still thick, and the social spirit of the community is very high.

Villages in Law no. 22 of 1999 concerning Regional Government, the definition of a village can be concluded as a unit of community that has a mutual agreement and has a firmly held legal and customary unit whose area is usually located in the district as a part of the local government which is recognized to exist in accordance with the provisions of Law No. applicable law (Susmayanti, 2012). Usually in a village there are also various natural resources that make people also work according to their natural conditions and this has generally been done for a long time from generation to generation from the community. We often see a village where the community works as farmers who grow vegetables, fruits, and other similar plants because the location of their residence is in the highlands, causing cold air temperatures, fertile soil and of course suitable for the growth of various plants according to their needs. Condition of the area.

Work is one of the most important things, especially for adults. We often see many adults who are not working experience stress or behave like a lack of motivation and enthusiasm for life and work is also very important for adults who are married where he has to support a family in which there are children and his wife not to mention a large family which of course also Be part of the people who must be given a living even though it is not the main obligation (Udin, 2010a). The reality of research in Pulutan Village is also in tune with the environmental conditions with the work occupied by the people in the area where the people here in general are ceramic craftsmen who are very famous even not only in Indonesia but are already well known abroad. The work of making ceramics or grain is supported by the environment which has very good quality clay so it is suitable to be used as raw material for making the grain or ceramics. The local government even makes Pulutan Village as one of the tourist destinations that must be visited by tourists, especially those who come from abroad to the North Sulawesi or Manado region.

Here it will be very easy to find people of various ages who are so skilled in making ceramics. Every age group can work as a ceramics craftsman or help provide raw materials and other things in the ceramic making process, starting from children, teenagers, adults, even people who are already in their old age can still work according to their abilities in the industry make ceramics. However, if we look at the level of education, the community seems to be indirectly affected because they have worked since they were small, so many people do not make education a priority, so if we want to look at the statistics, education for undergraduate graduates is smaller than those who graduate from elementary school to high school.

The discussion that is relevant to this research is an article from (Hamdi Gugule, 2022) the results of this study indicate that for the education of the community around the mine it is still very difficult to get proper education, this is due to the lack of facilities available in schools around the community. Then coupled with the lack of teachers who are academically competent in teaching, for example, teachers should come from Bachelor of Education graduates, but because of these limitations, many teachers who teach come from high school graduates or honorary teachers.

Then also relevant to the article Laloan, based on the results that people’s income can come from husbands who work as ceramic craftsmen or from other jobs and also the income of wives who work as ceramic craftsmen and other jobs besides being housewives. Ceramic craftsmen here need to always be considered by the government starting from capital assistance, marketing, as well as improving the skills of their human resources so that they can maintain the quality of
ceramics produced by the Pulutan Village community either through material assistance, infrastructure, or through relevant training (Laloan, 2017).

Further relevant to the article from Kristianus and Magdalena, the results of the study indicate that aspects of education in the community are mainly related to inadequate educational infrastructure plus the question of the complete availability of educational support in schools such as books, practice tools, and so on which are not yet qualified. Furthermore, the question of community orientation in sending their children to school is that there are several orientations such as cultural demands or parental encouragement, as knowledge capital, and also orientation to being able to get a job abroad (Kristianus, 2018).

The last relevant research is relevant to Hisni and Aan's research where the research results show that there is a link between the character of education and the values of a culture which in this article is associated with Sundanese culture and furthermore it is also associated with Islam. In Sundanese culture there are two values that are internalized in society, namely the value of prosperity and the value of goodness where these values are considered by the Sundanese to be in accordance with the references in Islam. So that in its application in society, it is expected that all actions and behavior and community activities must breathe Islamic religion (Fajrussalam & Hasanah, 2018).

This research is different from previous research where this research specifically wants to describe and reveal what the existence of the ceramic craftsman community is like, which incidentally is still a lot of people using traditional methods in the modern era and its relationship with the level of education of the community where the people can get jobs from all age. This study reveals how a tradition in a society also has implications for the development and welfare of the community, especially in this case related to education and work of the local community. Based on this, the researcher gave the title of this research, namely "The Existence and Education of Ceramic Craftsmen Society of Pulutan Village in the 4.0 Industrial Revolution Era".

B. METHODS

The research method used in this study is a qualitative research method in which researchers look for data in the form of explanations from informants and other relevant data sources in the form of stories, documents which can then be narrated or described qualitatively which becomes the research instrument. own researcher (Murdiyanto, 2020). The sampling technique in this study, using snowball sampling, is a technique for determining the sample which is initially small in number, then this sample is asked to choose friends to be used as samples and so on, so that the number of samples is increasing. It's like a snowball that rolls and gets bigger and bigger (Sugiyono, 2010).

The data collection method in this study used unstructured interview techniques and half-involved observation in order to obtain valid data and in accordance with the objectives of this study (Sugiyono, 2011). Unstructured interviews were conducted with the community of ceramic craftsmen in Pollutant Village and also the community in general where the questions to be submitted were not detailed beforehand but only in the form of big topics written by researchers to be then questioned to the community, but questions could develop according to the flow of questions and answers with local community (Mesra, Umaternate, 2021).

This semi-involved observation meant that researchers came to Pulutan Village and mingled with the local community, whether by shopping at community stalls or simply asking about something to the community with the aim of building good communication first and then specifically finding out about research questions. through observation along with interacting with
the community at a certain time. This means that researchers are not part of the community 24 hours a day, but researchers only visit and mingle with the community at certain times (Mesra et al., 2021).

The researcher uses data analysis from Miles and Huberman 1992 where he makes a data analysis structure which of course has been widely used by academics, researchers, and the general public as we are familiar with data reduction, data presentation, and finally drawing conclusions or verification. Data reduction can be done by grouping the results of similar interviews with the Pulutan Village community as well as the results of observations with certain data categorizations and then codifying them so that it is easier to process the data to become research results. Then the presentation of the data by displaying data both data from interviews and data from observations to see if there is data that needs to be corrected or added according to the research objectives. At the stage of drawing conclusions or verifying data, the researcher takes a summary of all existing data in accordance with the research objectives to then serve as valid research results (Miles, 1992).

C. RESULT AND DISCUSSION

Based on the results of unstructured interviews and the results of half-involved observations that the researchers conducted in Pulutan Village to examine the existence and education of the ceramic craftsman community in the village, the researchers found the following research results:

1. There are no “unemployed” people of all ages Levels

Work is certainly a very important thing for a society, many people are even looking for work far from where they live because there are no jobs around where they can earn income to meet their household needs or their daily needs. Regarding the difficult jobs in the area where the community lives, this does not apply to the people in Pulutan Village where in addition to working as farmers, most of them have a home industry for making ceramics which can be used as the main job of the people in the village. It can be seen that ceramics can be formed from materials, namely clay which is commonly found in nature, through several stages or processes, namely quartz, glass powder and also feldspar. Thus, the structure of the ceramic itself can be determined from the structure of the crystal constituent, the composition contained in it and also the innate minerals (Wati et al., 2019).

As stated by Mr. IJ (43 Years) as follows, “...in general, the work of the people here is as a farmer and mostly as a ceramics craftsman. Kalua as a farmer, for example, works in rice fields or gardens, as a ceramics craftsman, he usually owns it or someone works outside the area with a company or the like” (Interview on November 23, 2021). As stated by Mr. IJ, we can take information that basically the livelihoods of the people here are as farmers and also as ceramics craftsmen where a larger portion is working as ceramic craftsmen, especially their own and there are also some who work with other people or company whether it is in the village or outside the area, as shown in Figure 1.
The role of work in everyday life is very large in meeting needs. Job selection is certainly inseparable from factors such as economic, social, and psychological needs. Economically, people who work will earn income that is used to meet the needs of daily life. Socially, people who have jobs will be more valued by society than people who do not have jobs (unemployed). Furthermore, people who have jobs psychologically will increase their self-competence and self-esteem (Bashir & Muhammad, 2015).

Pulutan Village is unique when researchers conduct interviews with several people who say quite seriously that no one is unemployed in their village, starting from children. Teenagers, adults, to parents have a minimum job as a ceramics craftsman in their respective homes. As expressed by Mrs. AS (52 Years) as follows, "...here, people generally can work as ceramic craftsmen, at least they can help in doing small jobs if they are not strong, for example forming clay or lifting large clays, at least at home they can work as ceramic craftsmen" (Interview on November 17, 2021).

As the researchers noticed, the people of Pulutan Village show that their choice to work as grain and ceramic craftsmen even from childhood is part of a traditional form of action where the community is basically used to doing this and has become entrenched in the surrounding community. Traditional Action, according to this theory, all actions are determined by habits that have been rooted for generations and are still preserved from one generation to the next. In the Islamic tradition, we really pay great attention to maintaining traditions, especially preserving the traditions that have been passed down from the scholars who have played a major role in the development of Islam to date. Preserving what has been done by the scholars is an important thing, because there are historical values that can be taken and used as moral values to be applied by present and future generations (Muhlis & Norkholis, 2016).

2. People Prefer to Work as Ceramic Craftsmen so that Few Continue Their Undergraduate Education

When a person is used to working from a young age, he can even earn money to at least meet his own needs, then his orientation to school decreases slightly because people generally think that the purpose of school is to get a job. Then there are many other factors that make people give priority to work compared to, for example, continuing their education to a bachelor's level, it can be due to helping or continuing their parents' business as ceramic craftsmen, already feeling the pleasure of working, and maybe seeing the prospect of becoming an entrepreneur is very big as a ceramic craftsman and it could be too because the work tradition of the Pulutan Village community is as a ceramic or grain craftsman.
The level of educational experience possessed by community members has a close relationship with community participation in constructive community activities. The better the formal education obtained, the better the involvement of community members in existing development activities. The work of community members has a close relationship in terms of their involvement in community or development activities carried out. Someone who does a good job will have more. There is a significant positive relationship between Education Level and Type of Employment with Community Participation in Development (Udin, 2010b), as shown in Figure 2.

![Figure 2. Ceramic craftsmen (old people) generally do not have a bachelor's degree](image)

As expressed by SN (32 Years), as follows, “…I used to work making grain or ceramics, this was taught by my parents from a young age, until now I have been able to have my own income even though it is a matter of education only until I finish high school and do not continue to college level” (Interview on 25 November 2021).

As stated by SN, it can be seen that people are used to working since childhood and have felt the income as ceramic craftsmen so that some people choose to continue working as ceramic craftsmen or farmers rather than having to continue their education to undergraduate level. However, based on other interviews, the researchers also received information that there are still children from the local community who continue to study although the percentage is smaller than those who prefer to work. Based on the observations of researchers that Pulutan Village has the potential to make the people in it have a good economy as grain and ceramic craftsmen because this village is also known as a tourist village for ceramic craftsmen, not only in North Sulawesi, but throughout Indonesia and even worldwide.

Even though there is so much potential for Pulutan Village ceramic craftsmen, they also have obstacles in continuing their tradition or work. The limited facilities owned by the craftsmen, namely the transition room facilities for visitors when visiting the showroom or production room create an atmosphere that is less receptive to the presence of visitors, so that it will reduce the image of craftsmen in visitor services. After entering the craftsmen’s activity room, there was also an atmosphere of space that was not well organized so that the convenience of visitors in observing and selecting objects, as well as the circulation of space became constrained by items that should be stored in the warehouse. In a broader scope, facilities will be obtained between the places of activity of the craftsmen which are less comfortable due to the unavailability of territory for pedestrians as a connecting facility between the places of activity of the craftsmen; as well as the limited reception space for visitors in the area, even though there are property assets that have not been used according to their needs. Based on this, it is felt necessary to increase the vitality of the area with a more comfortable atmosphere in shaping the image of the ceramic
tourism village area, as well as changing places that have not been functioned as needed (Widyarthara, 2019).

3. Pulutan Village is Known as a Tourism Village for Ceramic Craftsmen in Minahasa

Crafts as one of the sub-sectors of the creative economy is considered characteristic of the Indonesian nation and has a very close relationship with the tourism industry. Utilization of raw materials that are easily available in the natural environment such as wood, metal, leather, glass, soil and textiles are the main factors that make this sub-sector always survive. The ceramic craft business in particular is developing quite well in Indonesia and not only selling ceramic products but also developing into a ceramic studio business which is a ceramic making training service business and ceramic industry education tours (Wibawa, 2018).

Information about Pulutan Village is very easy to find, when we try to type the name of this village on google, a lot of information will appear about this village as one of the tourist villages that must be visited if you come to the North Sulawesi area. This village is famous for having many home industries for ceramic and grain craftsmen, usually the products of this village are sold around Minahasa to Gorontalo and many also outside other areas, some have also been brought abroad because so many foreign tourists come. One of the people said that if not during the pandemic, usually foreign tourists and local tourists come to this village almost every day, whether it’s just traveling, there are also researching, students, and so on, as shown in Figure 3.

![Figure 3. The form of Pulutan Village ceramic crafts](image)

As stated by Mr. RN (47 years old) as follows, "...usually on normal days before the pandemic, a lot of tourists come here, starting from local and foreign tourists, maybe you could say almost every day there are tourists who come so that the people here are no longer strangers if there are tourists who come and are used to welcoming and mingling with people. them" (Interview on 25 November 2021).

The traditional art of making Pulutan Ceramics was taught from generation to generation in Pulutan Village and then glazing techniques began to be developed, and explored designs to improve their quality in order to produce ceramic products with export quality. Only with continuous research and development will a truly high quality final product be produced, which increases from time to time according to changes and developments of the times (Aroengbinang.com, n.d.). Based on the observations of researchers in Pulutan Village, it is true that people are very accustomed to making ceramics, it can be seen from the way they show the steps to make ceramics from beginning to end.

4. Pulutan Village Ceramic Industry Needs Government Support to Further Develop

The Pulutan village community said that basically there was government assistance for the development of ceramic craftsmen in Pulutan Village starting from training, helping promote through social media, making rules regarding tourist visits that made Pulutan Village one of the
must-visit tourist destinations, to infrastructure assistance from the Canadian government, as shown in Figure 4.

![Figure 4. Local government explanation about Pulutan Village ceramics](image)

**Figure 4.** Local government explanation about Pulutan Village ceramics

Pulutan Ceramics has a Pulutan Ceramics Training Center Facility developed with the support of the Canadian government’s CIDA-Private Enterprise Participation (PEP) Project, to encourage the advancement of the use of new technology to nearly 300 ceramic business owners in Pulutan, which is 30% of the local population (Aroengbinang.com, n.d.).

As expressed by one of the AM ceramic craftsmen (47 years old) as follows, "...if there is government support, there is training, there is also financial assistance, infrastructure assistance, and other costs. Assistance has even been provided by foreign governments, namely from the Canadian government at the training center over there, but of course the craftsmen here hope that the government will not stop providing assistance or support in any form in the future" (Interview on 26 November 2021).

Ceramic raw materials have different chemical compositions, so that not all ceramics can be made even as simple as anything. Among the ceramic raw materials that cannot be made of ceramics are raw materials from parts of the Canjur area. In the manufacture of about 20,000 ceramic samples using this raw material, failures are generally found in the form of cracks and breaks when dried. The rest breaks down during combustion. Failure to manufacture this is very detrimental. Utilization of raw materials has been done traditionally without knowing for sure the composition it contains. With the advancement of science today, it is necessary to know the distribution of grain size (aggregate), chemical composition, crystal structure, density, porosity, particle size, impurities and others so that in the manufacturing process we can know with certainty the interaction of raw materials in it, so that ceramics are obtained according to which is expected (Mentah et al., 2006).

Based on the observations of the researchers, the community also seems to need more promotional assistance, both from the government and from other parties, in the hope that the ceramic and grain products in this Pulutan village can be more attractive to buyers, especially from outside the region to abroad. Included in this is assistance related to the distribution of ceramics and grain in this Pulutan village which incidentally is an item that has the potential to break when sent to faraway areas, let alone overseas, perhaps with training on packaging, shipping routes, suitable expeditions, and so on so that the products of these ceramic craftsmen can also be bought and sold outside the North Sulawesi area to foreign countries.

The following descriptions of ceramics manufacture are information that has been rearranged based on the literature on ceramic technology, both in the form of technology books and ethnography. This description of the manufacture of ceramics is grouped into two topics, namely materials and processes. Included in the material are general (ie clay as the main ingredient of ceramics) and special materials (ie other materials usually associated with ceramics, such as glazes). What is meant by process is the stage of preparation and formation of ceramics,
which in general can be sorted into the process of preparation, formation, surface cultivation, and burning (Raharjo et al., 2018).

5. **Pulutan Village is Often Used as a Place to Develop Knowledge and Skills**

Pulutan village which is unique mainly because of the peculiarities of its people’s work as craftsmen and sellers of grain and ceramics also invites the attention of academics and students to make this village a place for learning, research, and also as a place for service. What’s more, people’s work as ceramic craftsmen is like a tradition that has been passed down from generation to generation until now, ceramic craftsmen here still exist to make ceramics as a source of income and a job.

Although basically the community certainly also has obstacles such as soil raw materials which previously could be obtained in the gardens and around Pulutan Village, but nowadays sometimes they have to look for it far into the forests or to other areas. Production costs and selling prices of ceramics and unhulled rice are expensive. The presence of researchers, academics, students and educated people who visit Pulutan Village is also expected to be able to add insight to the community in overcoming the various problems they face as ceramic and grain craftsmen so that this home industry is also growing rapidly (Tommy & Mandey, 2009). As shown in Figure 5.

![Figure 5](image)

**Figure 5.** Students learn to make ceramics with the Pulutan Village community

When we visit Pulutan Village and want to try to learn or ask to be taught to make ceramics or grain to the craftsmen here they are very eager to teach the visitors. The community also does not refuse. When interviewed, their activities are videoed, they will be very easy to blend in with the wishes of the visitors as long as it is positive, especially when we want to know their origins or about their culture as grain and ceramic craftsmen which have been done decades ago by the community’s ancestors here.

As expressed by KK student EL (22 Years) as follows, “…when we came and asked for permission to interview and asked for help being taught to make grain and ceramics, the community did not refuse and were very excited to answer our interviews, they were not like people who were disturbed by our presence as fieldwork students. We were even offered to enter their house, offered to eat and drink, they received us warmly, we also feel happy When we come to a place like this and are welcomed by the community” (Interview on 25 November 2022).

As stated by EL, it seems that the community is used to helping visitors who want to learn or also come to carry out their lectures, even the community is willing to provide training on making ceramics or grain to visitors for free. Researchers pay attention to the people here not only selling ceramics, even though they display their selling items, namely ceramics and grain around their homes, but they do not attract buyers like in the market or shout about their merchandise, if we ask about prices, and so on. Besides that the people who have the grains and ceramics explained
it to us. Here the researcher concludes that community activities as ceramics and grain craftsmen are not only a matter of economy but also it seems that the people of Pulutan Village are also proud and happy to preserve the culture that exists in the area.

Traditional ceramics are rarely intended for mere beauty/aesthetics or a medium of expression but are intended as functional objects for both profane and sacred purposes. Along with the development of the function of ceramics which was originally for household needs, then increased as a religious need and finally respect for the king or ruler, the art also developed to become increasingly complex, both in terms of materials, techniques and decorative motifs. Until now, apart from the development of ceramics with more modern technology, the tradition of making ceramic types of pottery which still continues the continuity of traditions from prehistoric times to the Islamic period in centers with characteristics and peculiarities that differ from one another is still found in various regions in Indonesia such as Ciruas, (Banten), Plered and Sitiwinangun (West Java), Kasongan (DIY), Klampok and Pagerjurang (Central Java), Pejaten (Bali), Banyumulek (NTB), Takalar (South Sulawesi) and Pulutan (North Sulawesi) (Yana, 2014).

D. CONCLUSION AND SUGGESTIONS

After conducting interviews and observations in Pultan Village to see how the existence of the ceramic craftsman community in the village and how relevant it is to the community’s orientation to their level of education, we can see that Pulutan Village as one of the tourist villages due to their tradition as ceramics and grain craftsmen is a village very independent even the unemployment rate is very low. People say that there is no possibility for people here to be unemployed, all ages can work in any role as ceramic craftsmen. Until now, people still continue to preserve their traditions as ceramic craftsmen and even people are able to adapt to the development of information and technology and take advantage of all of it for the development of their business or increasing their human resource capabilities to be able to continue to exist as a community of traditional ceramic and grain craftsmen in the era of the industrial revolution 4.0. This.

The results of the research are as follows: 1. There are no “unemployed” people of all age levels, 2. People Prefer to Work as Ceramic Craftsmen so that few continue their undergraduate education, 3. Pulutan Village is Known as a Tourism Village for Ceramic Craftsmen in Minahasa, 4. Pulutan Village Ceramic Industry Needs Government Support To Further Develop, 5. Pulutan Village Is Often Used As A Place To Develop Knowledge And Skills.

The implication of this research is for the development of science, especially the discipline of sociology related to rural sociology, sociology of tourism, and so on as well as social science in general. This research is also useful for academics and especially the community in Pulutan Village and also the relevant government in order to continue to preserve the existing culture and increase assistance and support for the development of tourism potential in this area.

As a researcher, I see that the home industry of ceramic and grain craftsmen in Pulutan Village is very prospective to develop not only nationally but also internationally. This is supported by the quality of the ceramic and grain products they use, which are trusted for their quality and are well known to foreign countries. Maybe the related parties can help with the marketing and distribution, for example, how to pack these ceramic and grain products so that they are safe and don’t break if they are sent out of remote areas or abroad. Furthermore, the researcher hopes that apart from developing as a ceramics craftsman, in the future hopefully the level of education or graduate degrees from Pulutan Village will also increase, of course with the help of the relevant
government or anyone who has an interest in it and find a way so that the children in Pulutan Village can also have an orientation to improve their education.

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