

ARTICLE

Penta-helix Collaboration in the Development of Papua Province's Creative Economy

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ABSTRACT

Disparities of development in Papua Province contrast with the level of poverty and low HDI in several Papua Province regions. Improving the welfare of the Papuans may be accomplished by implementing the concept of the creative economy, which is indicated by the creative economy's potential for national exports and increased workforce involvement. This demonstrates the possibilities that may be realized by adopting the Penta Helix Collaboration concept. A literature review method with a qualitative approach was used in this research. The Papua Provincial Government, the private sector, academics, the community, and the media are the actors in the Penta Helix Collaboration. As the initiator and mediator, the Papua Provincial Government provides policy facilities and legal guarantees for other actors to participate. The private sector can help with funding and technology transfer, the community can help with creative economy development needs, and academics can help with knowledge transfer to creative economy actors. The media plays a role in developing brand image and widely and massively promoting products to expand the market

A. INTRODUCTION

The creative economy is an economic development concept that utilizes or promotes human resources' ideas and knowledge as a factor of production in economic activity. It does not depend on using natural resources (Sopanah et al., 2020). Law 24 of 2019 defines the creative economy as intellectual property with added value and stems from human creativity based on cultural heritage, science, and technology. The current development of the creative economy is a form of concept shift that starts with the agricultural economy, then moves on to the industrial economy, and eventually to the information economy (Sidauruk & Saksono, 2018). Creative economy development is based on the fact that industry is no longer the only source of the economy but must also depend on other resources. Creative human resources are the main capital to create innovation in the face of increasing competition or market competition (Purnomo, 2016). The creative economy is believed to contribute positively to the current global economy, which relies on the superiority of human resources to produce works

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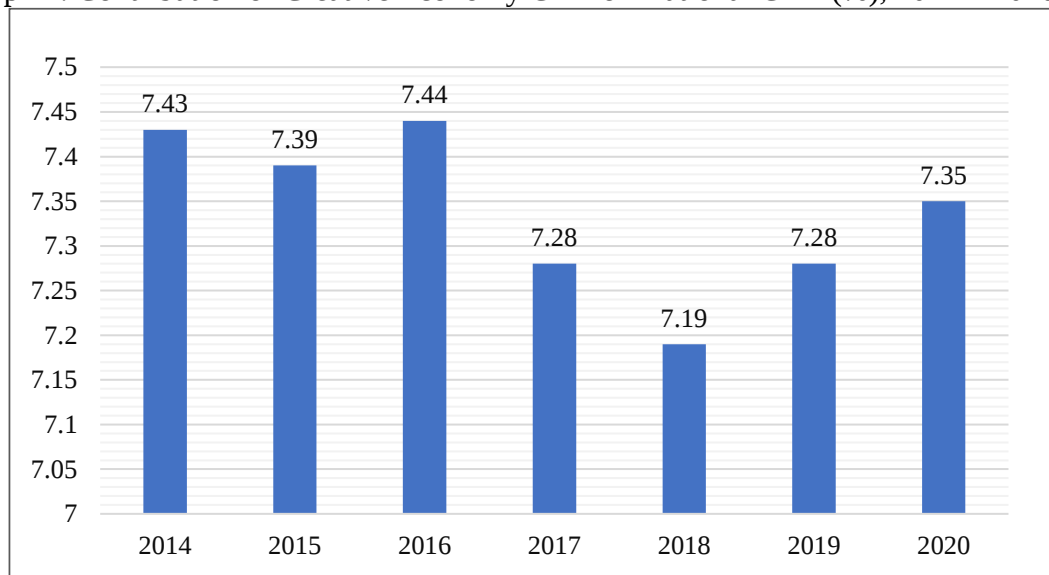
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of art, architecture, books, innovations, and animations derived from creative ideas of human thought.

The creative economy has great potential to be developed in Indonesia. According to [Hastyorini & Setiadi, \(2019\)](#), Indonesia has the advantage of the demographic bonus, where the productive age population reaches 70% of the total population. The potential for the creative economy is also seen in the recognition from the domestic and world markets for the creativity possessed by Indonesian human resources, such as creativity in processing cultural arts products or services, the ability to make qualified designs, increased mastery of technology, and the ability to use media in communication. In addition, natural and cultural wealth is a factor that drives the creative creation process. The creative economy's potential is also seen in the consumption of creative economy products, both domestic and foreign markets, which tend to increase. The presence of the creative economy in improving the state and regional economy also has a positive impact on the economy, such as opening new jobs, reducing growth rates, creating creative and innovative societies, and increasing innovation in various creative economy sectors to improve welfare and quality of human life ([Saksono, 2012](#); [Sopanah et al., 2020](#))

The creative industry, as part of the creative economy, has a significant contribution to the Indonesian economy and a favourable business climate, affects the image and identity of the nation, supports the use of renewable resources, and becomes a center for creating innovation and the formation of creativity ([Hastyorini & Setiadi, 2019](#); [UNCTAD, n.d.](#)). The influence of the creative economy can be seen in its contribution to the Indonesian economy, namely the national gross domestic product (GDP). Based on the [Ministry of Tourism and Creative Economy \(2020\)](#), the creative economy contributed 7.35 percent to the national GDP in 2020. The contribution of the creative economy to GDP in 2020 increased by 0.16 percent from 7.19 percent in 2019. From 2014 to 2020, the creative economy has a 7.33 percent average impact on the national GDP. The contribution of the Creative Economy to the National GDP demonstrates the growth of the creative economy sector, which is a new source of economic growth to meet long-term development goals.

Graph 1. Contribution of Creative Economy GDP on National GDP (%), 2014 – 2020

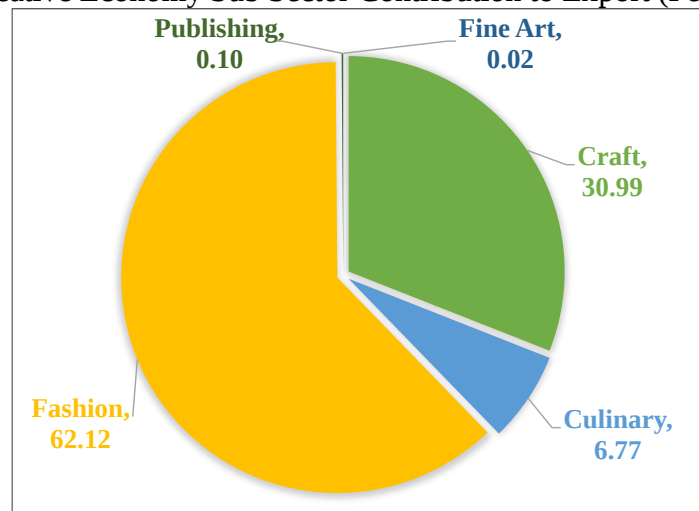


Source: [Kemenparekraf \(2020\)](#)

According to information from the Ministry of Tourism and Creative Economy ([Kemenparekraf, 2020](#)), the fashion, craft, culinary, publishing, and fine arts subsectors dominated exports of creative economy products in 2019. Fashion was one of the sub-sectors

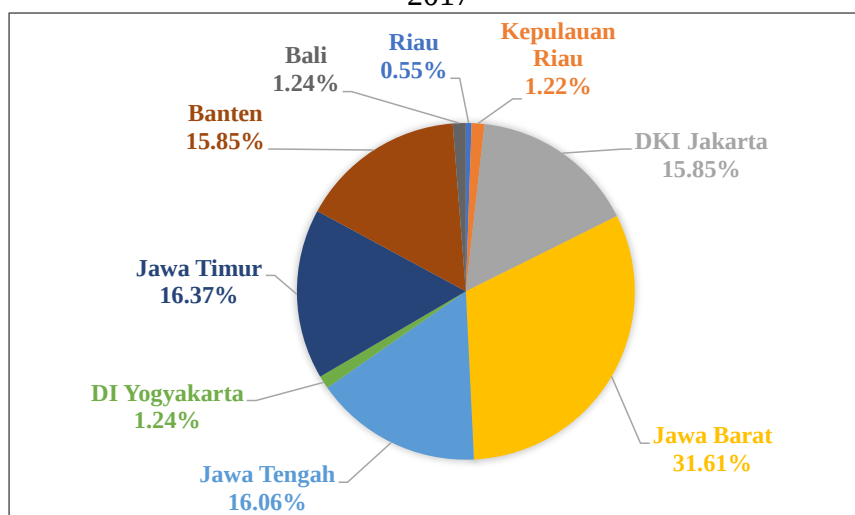
that contributed significantly to creative economy exports in 2019, amounting to 62.12 percent or US\$ 12,221.60 million. After a fashion, the most significant creative economy exports were the crafts sector, at 30.99 percent or US\$ 6,097.40 million, and the culinary sector, at 6.77 percent or US\$ 1,332.90 million. The region's origin that has contributed to producing these creative economy products cannot be separated from the growth of creative economy exports. According to the Ministry of Tourism and Creative Economy ([Kemenparekraf, 2021](#)), many provinces lead creative economy product exports. West Java, with a value of 31.61 percent or US\$ 6.83 billion in exports in 2017, was the province with the greatest export value. East Java Province came in second, giving 16.37 percent, followed by Central Java Province, which contributed to 16.06 percent.

Graph 2. Creative Economy Sub Sector Contribution to Export (Percent) in 2019



Source: [Kemenparekraf \(2020\)](#)

Graph 3. Value of Creative Economy Goods Export Based on Province of Origin (Percent) 2017



Source: [Kemenparekraf \(2021\)](#)

The creative economy has an impact on job creation as well. The expanding creative economy exports stimulate workforce absorption, which is likewise increasing. According to the [Kemenparekraf \(2020\)](#) the absorption of creative economy workers is growing. In 2019, the creative economy employed 19.2 million people or 15.21 percent of the total working population of 126.5 million. This amount has risen since 2018, when the population working

in the creative economy sector totalled 18.4 million people, amounting to 14.84 percent of the overall working population of 124 million people. Compared to the national workforce growth of only 2.02 percent, the development of employment in the creative economy sector in 2019 reached a rate of 4.02 percent.

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Indonesia's creative economy's potential is one of the current development focuses. It is shown by making the National Master Plan Creative Economy Development (Rindekraf). Based on Presidential Regulation Number 142 of 2018 concerning the National Master Plan for Creative Economy Development (Rindekraf) for 2018-2025, business ecosystems in the creative economy were developed in 16 sub-sectors. These sub-sectors were application and game developers, architecture, interior design, visual communication design, product design, fashion, animated films and videos, photography, craft, culinary, music, publishing, advertising, performing arts, fine arts, and television and radio. The regulation stated that the creative economy development was the government's responsibility, either the central or regional governments. The government's commitment in developing the creative economy is to develop research, education, funding and financing facilities, infrastructure provision, development of marketing systems, intellectual property facilities, and protection of creativity. The government's creative economy development was aimed at the community's welfare, increasing state income, creating new job opportunities, optimizing the creative economy's potential, and protecting the creativity of creative economy actors.

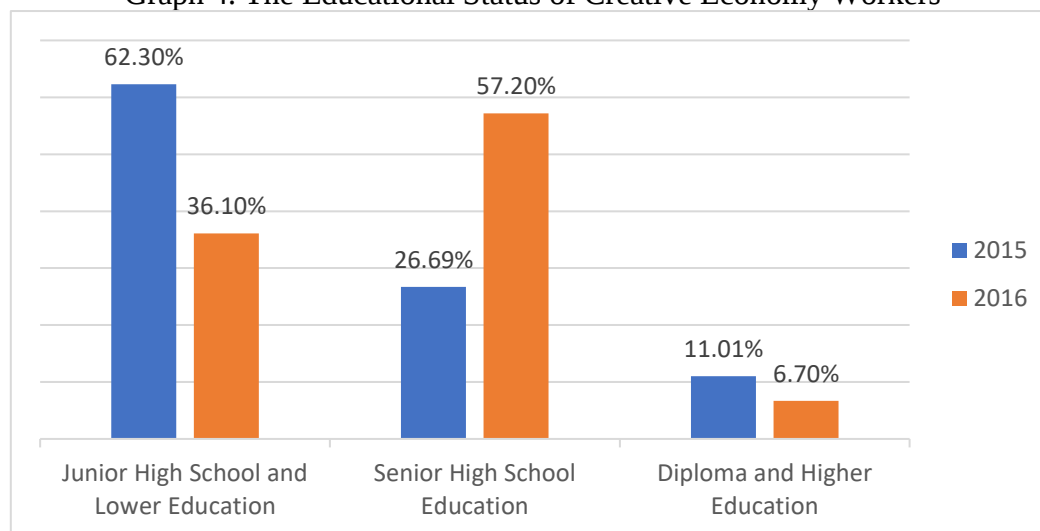
The growing influence of creative economy exports on economic development, as well as support from the central government in the form of policies that stimulate the growth of the creative economy ecosystem, can be used by the Regional Government to improve the welfare of its people. The Provincial Government of Papua can use the idea of a creative economy to reduce poverty and, specifically, enhance the welfare of indigenous peoples. According to data from the Creative Economy Agency (Bekraf) for 2017, the export value of creative economy products from Papua rose from 34,406 US dollars in 2010 to 344,263 US dollars in 2016. Creative economy exports Products originating in Papua Province are dominated by fashion, craft, and culinary products. The impact of the development of the creative economy might be seen not only in the increased value of Papua Province exports but also in the workforce involved. The Creative Economy Agency also showed a rise in workforce, from 35,553 people in 2014 to 42,885 people in 2016.

The Provincial Government of Papua can use the idea of the creative economy to boost the local economy because Papua Province contains supportive factors. It is based on the fact that Papua Province has very high cultural diversity, as indicated by the indigenous tribal groups in Papua consisting of 255 tribes with different languages (www.papua.go.id). Ethnic and cultural diversity can be utilized in creating innovative products with high economic value. Papua Province also has abundant natural resources, such as raw materials, to create innovative products while keeping the concept of natural sustainability in mind. In addition, by utilizing the creative economy, it can absorb the workforce of the local community, especially the Papua people.

The development of creative economy sectors was inseparable from the challenges faced by creative economy actors. The creative economy faces obstacles. Business actors have expensive raw materials, a lack of product innovation, a low level of education, limited access to business funding, and a small consumer base (Eskak & Widiastuti, 2019; Lamalewa & Kore, 2020; Nasarudin, 2014). Other barriers to creating a creative economy include the lack of skilled and competitive human resources, the lack of substitute raw materials, the difficulty of obtaining financing, and the lack of infrastructure and technology (Ernawati et al., 2019; Hastiyorini & Setiadi, 2019; Sholihin et al., 2018).

This problem is also in line with the results of the [Bekraf and Indonesian Statistics \(BPS\) surveys in \(2017\)](#), which showed that one of the needs in the creative economy sector was highly-educated human resources. This statement was indicated by the educational status of creative economy workers in 2016, dominated by high school education equivalent to 57.20 percent, followed by junior high school and lower academic level at 36.10 percent, and diploma and higher education at 6.70 percent.

Graph 4. The Educational Status of Creative Economy Workers



Source: [Bekraf \(2017\)](#)

The Provincial Government of Papua can use the creative economy's potential to improve its people's welfare. The program to improve the People's welfare of Papua is stated in the Medium-Term Regional Development Plan (RPJMD) of 2019-2023 of the Papua Province as one of the strategic development issues, namely equitable and sustainable economic growth on commodities and local characteristics. The program was based on economic growth that was still focused on specific areas in Papua Province, such as big cities and the low involvement of local workers. In realizing equitable economic growth, the Provincial Government of Papua encourages the development of the extractive, non-extractive and creative economy sectors. Extractive sectors include agriculture, plantation, forestry, animal husbandry, fishery, and marine. For the non-extractive and creative economy sectors that provide multiple added values, such as in the fields of industry, trade, and industry as well as tourism

The creative economy's potential in Papua Province requires collaboration between actors outside the regional government to create innovation. Innovation in the development of creative economy sectors can focus on using natural resources, the readiness of creative human resources, and educational institutions that support creativity, technology, and financing methods (Hastiyorini & Setiadi, 2019; Sopanah et al., 2020). Innovation in the creative economy development through a collaborative process of various actors involving various stakeholders is a form of the helix concept. According to (Hardianto et al., 2019), the helix is a concept of

synergy and cooperation that creates innovation in the creative economy and tourism that requires collaboration between the government and stakeholders.

The creative economy, which improves the regional economy, can improve the people's welfare, especially the indigenous people of Papua. The vast territory, limited budget, limited educated resources, and policies that do not fully support the development of the creative economy have become obstacles faced in developing the creative economy in Papua Province. The magnitude of the opportunities that the Papua provincial government can take advantage of to improve the people's welfare of Papua is one of the considerations for making policies by applying the collaboration concept with the Penta-Helix approach. This journal will explain the role of collaboration through the Penta-Helix approach in developing the creative economy in the Papua Provincial Government.

B. LITERATURE REVIEW

Creative Economy

The creative economy is an economic concept that emphasizes the value added to goods through human creativity. According to (White et al., 2014), the creative economy relies on ideas generated by human intellect, where the output is a technical innovation that affects people's welfare. White adds that the creative economy comprises non-profit organizations, small businesses, and self-employed practitioners not identified as a significant industry. In addition, the creative economy is also defined as the concept of creativity-based economic development by utilizing unlimited resources such as ideas, thoughts, aptitudes, or talents (Purnomo, 2016). A creative economy plays a vital role in the economic development of developing countries. According to White et al., (2014), developing the creative economy in developing countries is very important. The success of creative economy development can be influenced by eight factors: education, leadership, infrastructure, culture, government policies, technological innovation, grouping or networking, and diversity. Meanwhile, according to Purnomo (2016), the creative economy is based on three main things, namely creativity, innovation, and invention. Creativity is the ability to create something new, unique, and generally accepted. Innovation is the transformation of ideas or thoughts to produce more value-added products by utilizing existing inventions. Meanwhile, the invention creates something that has never existed and can be recognized as work.

The United Nations Conference on Trade and Development (UNCTAD) defines the creative economy broadly. The creative economy is a developing concept formed due to the interaction between ideas, creativity and human intellectual wealth, knowledge and technology. Creativity becomes an economic activity when creativity produces ideas that have an economic impact or become traded products. Furthermore, UNCTAD describes the sectors of the creative industry, including advertising, architecture, arts and crafts, design, fashion, film, video, photography, music, performing arts, publishing, research and development, software, games, electronic publishing, and television. or radio (UNCTAD, 2022).

Collaborative and Collaborative Governance

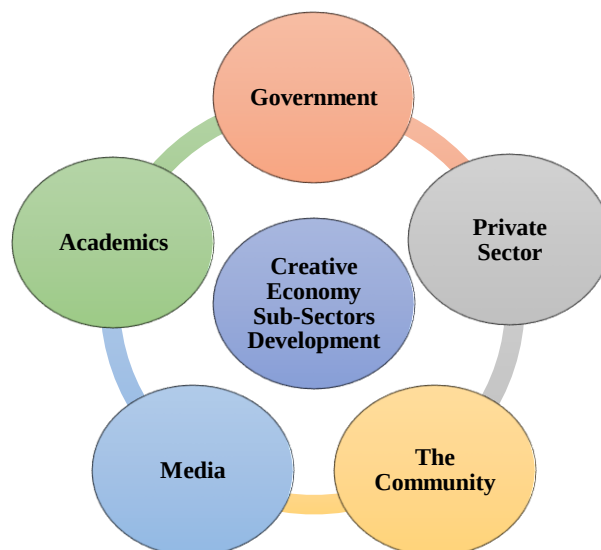
Community development carried out by the government depends on the program created, the available budget, and the availability of resources, technology, or innovations owned. This shows the government itself cannot solve all problems, so the government needs to work together with other competent parties to be involved in helping to solve public problems. Collaboration can be defined as an approach to resolving complicated issues by bringing together several stakeholders with diverse attitudes, behaviours, and resources to come to a consensus for a shared objective (Emerson & Nabatchi, 2015).

The definition of collaborative governance is based on the definition of collaborative cooperation between actors in solving daily problems that an actor cannot solve. In contrast, governance refers to regulating or how actors use processes and make decisions to exercise authority and control, provide power, take action, and ensure performance ([Emerson & Nabatchi, 2015](#)). Emerson and Nabatchi define collaborative governance as the process and structure of decision-making and public policy management. It involves people across public institutions and government levels and includes the public, private and civil to carry out shared goals that cannot be achieved in other ways.

According to [Hisanuddin \(2018\)](#), collaborative governance is a model of the balance of power and resources. The model entails a power and resource balance between governments, stakeholders, and other public institutions to agree to empower weaker stakeholders. These actors' interactions rely on overcoming complex problems through collective decision-making and consensus-oriented implementation. Furthermore, the interdependence of actors and organizations strengthens the necessity for such collaboration. The stronger the interdependence between actors or organizations, the more collaboration is required.

Penta-Helix

The Penta-Helix concept of collaboration brings together the government, academia, the private sector, the community, and the media. The Penta-Helix (PH) concept was formed due to the development of the model initiated by the Triple-Helix (TH). TH model emphasizes the Helix interaction that produces a national innovation system where knowledge is based on economics but overlaps. In addition, TH also does not consider social aspects in building innovation by social actors ([Sudiana et al., 2020a](#)). Based on these conditions, the Quadruple Helix (QH) model was formed to accommodate the media and culture-based perspective of the community. QH developed into a Penta-Helix (PH) model. This socio-economic development model moves knowledge towards innovation and entrepreneurship through collaboration between academics, the government, the private sector, the community, and the ([Sudiana et al., 2020b](#)).



(Source: [Hardianto et al., 2019](#); [Sudiana et al., 2020a, 2020b](#))

Figure 1. Penta Helix Collaboration Framework

The Penta Helix is a socio-economic development model that drives economic knowledge through collaborations and mutually beneficial partnerships between academia, government, industry, NGOs and the public sector, and social entrepreneurs ([Halibas et al., 2017](#)). The Penta

Helix collaboration involves the government, private sector, academics, the community, and the media. Government participation in developing the creative economy sub-sector includes laws and regulations, raw material provision, supporting infrastructure, and support in developing product sales networks (Hardianto et al., 2019; Sudiana et al., 2020a, 2020b). The private sector is important in providing capital assistance to creative economy actors, guaranteeing the application of technology, and sharing experience and knowledge in business management. As incubators for the creative economy, academics develop creative economy actors. Academics are involved in providing input to policies, identifying the potential of products, providing information related to the technology applied, generating creative ideas, planning and management concepts, and applying methods as a source of knowledge. Community is one of the helices that play a key role in the growth and development of the creative economy, specifically giving suggestions for the requirements of other actors such as labour, actors who can be involved, developing sales networks, and recommending appropriate marketing strategies. Media, the last helix in the Penta helix collaboration concept, plays a role in spreading information, publishing, and advertising the products of the creative economy sub-sector. The media can also interact with and disseminate information between stakeholders (Hardianto et al., 2019; Sudiana et al., 2020a, 2020b).

C. METHOD

This research described the creative economy's potential in Papua Province, supported by the role of various factors from the Penta-Helix collaboration concept. The use of the Penta-Helix Collaboration concept in developing the creative economy in Papua Province was based on the Papua people's cultural diversity as the principal capital of the creative economy, as well as the involvement of many people in increasing the potential of the creative economy as well as encouraging the improvement of community welfare and decreasing unemployment rates.

The method used in this research was a literature review with a qualitative descriptive approach. A literature review is a comprehensive overview of previous research and the process of identifying previous theories and research that became the focus of a particular topic (Denney & Tewksbury, 2013). A literature review can answer research questions by integrating findings and perspectives from various empirical findings. In addition, a literature review can help provide an overview of different and interdisciplinary fields. Based on this, the literature review is the best way to synthesize research findings to show evidence and reveal areas that require research to create a theoretical framework and build conceptual models (Snyder, 2019). The data sources came from books, previous research journals on the creative economy, and the Penta-Helix Collaboration. The analysis began with building a conceptual framework about the creative economy combined with collaboration and the Penta-Helix.

D. RESULT AND DISCUSSION

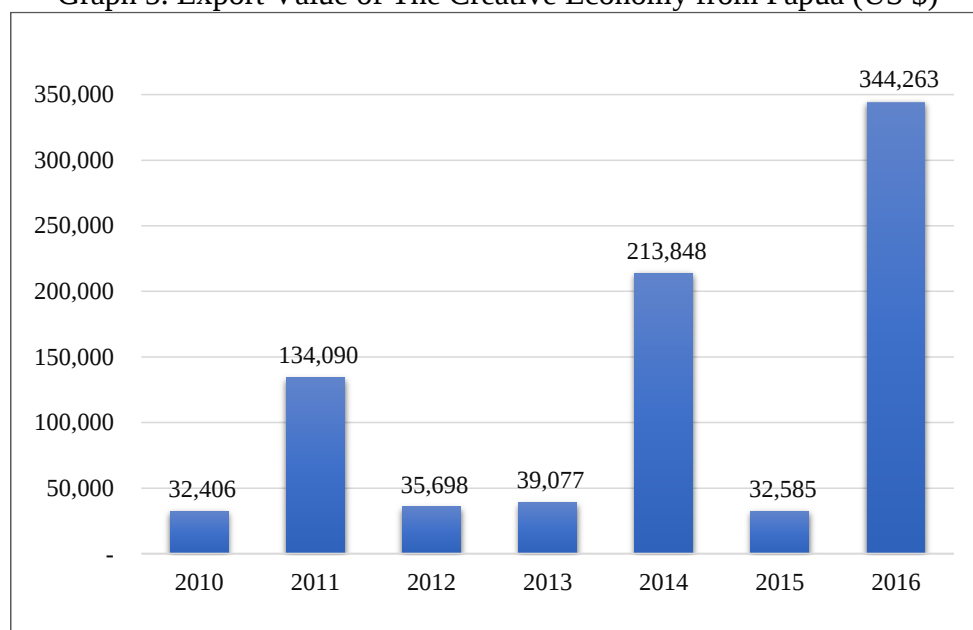
Community Conditions and Creative Economy in Papua

Development in Papua Province aims to improve the quality of life of the Papua people. The development gap between Papua Province and other provinces is quite apparent. Based on the Central Bureau of Statistics (BPS), the Human Development Index (HDI) of Papua Province is the lowest of the 33 provinces, at 60.44 below the national average of 71.94. In addition, the poverty rate in Papua Province is the highest compared to other provinces, reaching 26.86 percent, far above the national average of 10.14 percent in March 2021. Inequality exists between Papua Province and 33 other provinces and between districts and cities in Papua Province. There are 12 regencies/cities with HDI above the provincial average, with the highest being Jayapura City at 80.16. At the same time, the other 17 districts have HDI below the Papua Province average, with the lowest index in Nduga Regency at 30.75. Poverty

between districts/cities is also seen in contrast. There are 12 regencies/cities with a poverty percentage below the average for Papua Province, with the lowest being in Merauke Regency at 10.30 percent. In comparison, 17 other regencies have a poverty percentage above the average for Papua Province, with the highest being in Deiyai Regency at 41.76 percent. This inequality can occur due to the low involvement of local workers and the foundation of extractive-based economic growth that tends to damage the environment.

The creative economy is believed to help improve the community's welfare and has become a development priority for the Government of Indonesia, as stated in the 2020-2024 RPJMN. The program includes strengthening economic resilience for quality growth by accelerating the added value of the agro-fishery industry, maritime, energy, industry, tourism, and the creative and digital economy. Responding to the Central Government's program to increase the role of the creative economy, the Papua Provincial Government made strategic issues in Regional Regulation No. 3 of 2019 concerning the Regional Medium-Term Development Plan (RPJMD) for 2019-2023 in Papua province. The strategic issues include equitable and sustainable economic growth based on commodities and local characteristics supported by infrastructure development that considers the principles of sustainable development following the third mission, namely, Realizing Economic Independence.

Graph 5. Export Value of The Creative Economy from Papua (US \$)



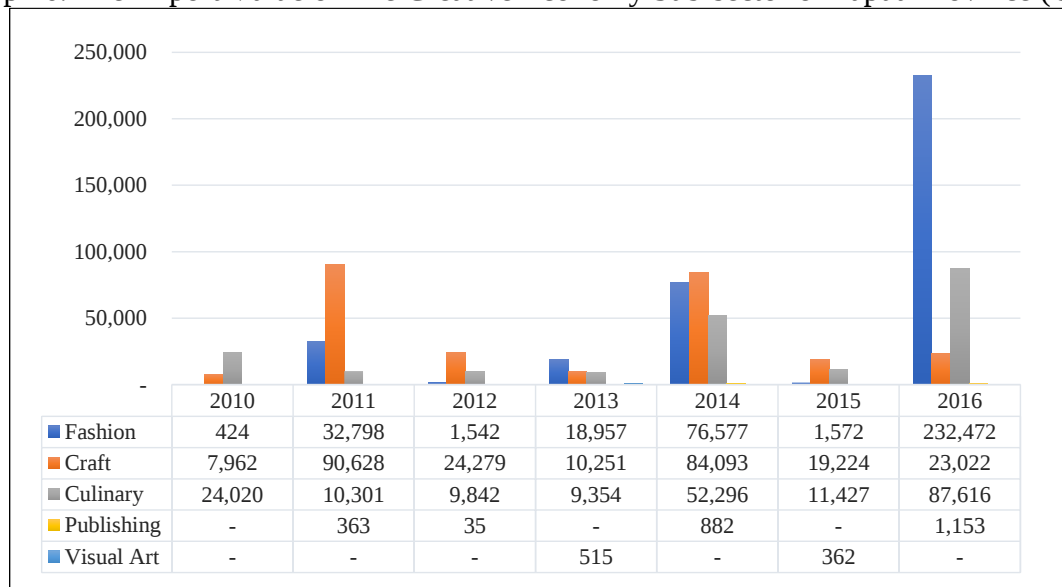
Source: [Bekraf \(2017\)](#)

In the 2019-2023 RPJMD, the development by the Papua Provincial Government focused on increasing independence, partnerships, and the involvement of the Indigenous People of Papua (OAP) in all areas of development. It aimed at realizing local autonomy and stability. Development focused on OAP involvement was the fourth mission of Papua Province development, namely strengthening and accelerating the regional economy based on superior local potential and sustainable cultural-based regional development. Development focused on the Papua people aimed to eliminate any form of injustice, marginalization, inequality, and discrimination. Development that focused on the needs of the Papua people was expected to eliminate societal conflicts happening so far.

The creative economy in Papua Province was developing. Graph 5 showed an increase in the export value of the creative economy originating from the Papua Province until 2016. The increase in the export value showed the potential that the Papua Provincial Government could

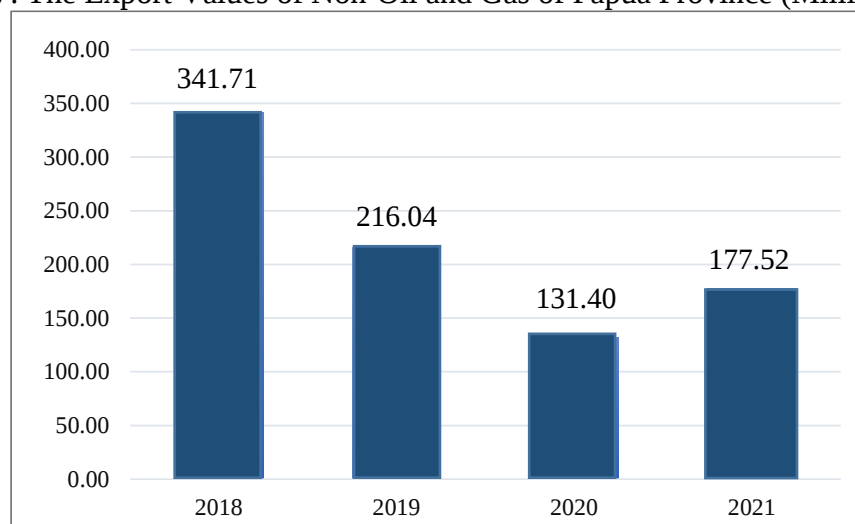
develop based on market interest in creative economy export goods from Papua Province. Based on Graph 6, the export value of the creative economy sub-sector of Papua Province was dominated by the fashion, culinary, and craft sub-sectors. The fastest growth was in the fashion sub-sector, which experienced an export value growth of US \$ 232,048 from 2010 to 2016. The crafts sub-sector had a fluctuating export value which had a declining trend from 2010 to 2016, while the culinary sub-sector had an increasing trend during that period. Based on these data, 2011, 2014, and 2016 were years with high export productivity compared to other years.

Graph 6. The Export Value of The Creative Economy Sub-sector of Papua Province (US \$)



Source: [Bekraf \(2017\)](#)

Graph 7. The Export Values of Non-Oil and Gas of Papua Province (Million US \$)



Source: [BPS \(2021\)](#)

Based on the value of non-oil exports, Graph 7 shows an decreasing trend in export. The non-oil and gas exports in question are goods from the mining, industrial, and agricultural sectors priced FOB (Free on Board), products with US dollar currency units before arriving at the loading port. Non-oil and gas exports fell sharply after 2018, from 341.71 million US dollars in 2018 to 177.52 million US dollars in 2021. However, the value of non-oil and gas exports increased by 131.40 million dollars in 2020 to 177.52 million dollars in 2021.

The development of the creative economy sub-sector in Papua Province faces several obstacles. [Nasarudin \(2014\)](#) states that the obstacle experienced by the Port Numbay Papua batik company is the high price of raw materials, which affects the selling price of the batik product. High prices will reduce buyer interest due to the low purchasing power of the people. (Eskak & Widiastuti, 2019) also show the culture of the Dani tribe in the Jayawijaya Regency. Papua has the potential to produce innovative products. One of the innovative products is a typical Dani carving souvenir, but relatively large carvings still constrain it. It is not comforting for consumers when they use non-commercial types of wood that impact environmental preservation. In addition, [Lamalewa and Kore \(2020\)](#) also show that the obstacles experienced by Noken craftsmen in Sota, Merauke Regency are the scarcity of natural raw materials in the form of local plants and cassowary feathers. Noken is the traditional bag of Mountain Papuans carried using the head and made of bark fibre). This is what makes it expensive. Another obstacle Noken artisans face is the low level of education, which affects the added value of Noken products, funding that relies on personal funds, and marketing that relies on local consumers.



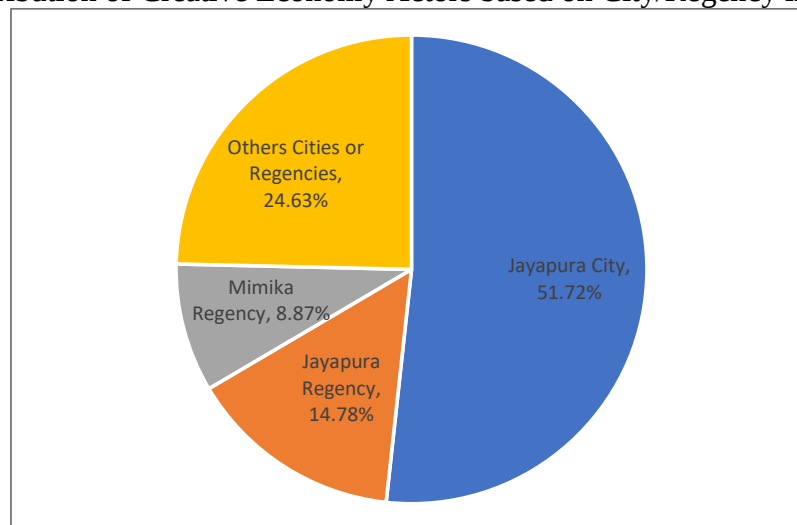
(Photo: Djuli Pamungkas, National Geographic Indonesia (2019))

Picture 1. The *Noken* Craftsmen in Jayawijaya Regency

Micro and small businesses must overcome barriers to run their business. According to the [BPS Provinsi Papua \(2022\)](#), 56.6 percent of micro and small industries have trouble operating their businesses. 14.06 percent of the micro and small industries had issues with expensive and challenging-to-find raw materials. 28.1 percent struggled to raise funding. 23.75 percent experience marketing challenges. 14.97 percent faced barriers to competition. 6.54 percent of micro and small businesses had trouble getting fuel or energy. Infrastructure is a 3.45 percent barrier to growth. The availability of Labor for micro and small businesses is also restricted by 2.12%, weather-related hurdles by 5.08%, and other limitations by 1.92%.

Increasing the role of the creative economy in Papua Provincial development is very important. The creative economy is based on OAP (indigenous people) in creative ideas, culture, and others. Based on data from Bekarf and BPS 2017, Creative economy actors recorded in the Bekraf Information Mobile Application (BISMA) reached 25,705 business actors. They comprised 269 Ltd/Limited Liability Companies, 184 CV, 6,095 special permits, 43 other business entities, and 19,214 non-business entities. 47.76 percent of business actors were in Jayapura City, 14.93 percent were in Jayapura Regency, 8.96 percent were in Mimika Regency, and 8.21 percent were in Biak Numfor Regency. The culinary sub-sector dominated creative economy actors by 76.41 percent, fashion by 11.40 percent, crafts by 8.08 percent, and the rest are other sub-sectors. The creative economy absorbed 35,553 workers in 2014, an increase in 2016 of 42,885 workers. In Graph 8, creative economy business actors were still concentrated in the Jayapura City area by 51.72 percent. Jayapura City operates as the provincial capital of Papua, which causes a concentration of offices and people there.

Graph 8. Distribution of Creative Economy Actors based on City/Regency in Papua in 2020



Source: [Kemenparekraf \(2020\)](#)

The Driving Factor for Collaboration through Penta-Helix Collaboration

The development of the creative economy in Papua Province is experiencing obstacles in its implementation. These obstacles are experienced by both the Papua provincial government itself and creative economy actors. The barriers experienced by the Papua Provincial Government in developing the creative economy consisted of limited human resources, infrastructure, technology and budget. Limited human resources with technical expertise in conducting training and technical guidance for the creative economy sector. Besides that, there are also infrastructure constraints supporting inter-regional connectivity and basic infrastructure technology constraints that follow regional conditions and budget constraints affect regions and the number of people involved in creative economy development programs.

The development of creative economic potential in Papua Province is the authority of the Tourism Office through the Creative Economy Division. The Creative Economy Division regulates, fosters, and develops the creative economy's potential locally. The creative economy division consists of two sections, namely the art and culture-based creative economy sections. The tasks include organizing, fostering, and developing the art and culture-based creative economy and the design, media, and architecture-based creative economy section. It also organises, fosters, and develops a creative economy based on design, media, and architecture. In 2019, the number of employees of the Tourism Office reached 78 people.

Based on the Regional Revenue and Expenditure Budget (APBD) of the Papua Province Tourism Office, programs related to the creative economy have several targets, policies, and programs. There are two policies to increase the role of the tourism sector in the regional economy and increase tourist visits and improve performance accountability, namely increasing the quality of creative actors' resources and developing creative works based on Papuan arts and culture as the main pillars in the development of tourism promotion and marketing. The policy was carried out by implementing partnership and capacity development programs.

Creative economy actors in Papua have faced several obstacles in running their businesses. Some of them were low education of business actors, limited working capital, and low mastery of technology, especially for product marketing, so they only relied on local consumers ([Eskak & Widiastuti, 2019](#); [Lamalewa & Kore, 2020](#); [Nasarudin, 2014](#); [BPS Provinsi Papua, 2022](#)). This product innovation was underdeveloped, especially in using raw materials and challenging locations. Low education affected the ability of business actors to utilize technology, efforts to innovate products, and the ability to manage finances that are separated from personal needs.

Business capital to increase productivity also affected the creative economy business actors' development in expanding their business. They only relied on sales results from previous products to produce. The low mastery of technology also hampered business actors' development, especially in marketing their products widely. It caused business actors to rely solely on local consumers or tourists visiting the area. The lack of innovation also influenced the product in terms of raw materials, models, motifs, dimensions, and product packaging, which impacted buyer interest. Undeniably, hard-to-reach locations affect raw material prices, capital requirements, and marketing. It occurred in the central mountainous region of Papua Province. Inadequate infrastructure and the lack of technological developments led to a slow increase in people's welfare due to the high costs required.

The Papua Provincial Government's role in developing the creative economy role in the people's welfare of Papua can be carried out by implementing the Penta-Helix Collaboration. The obstacles faced in developing the creative economy's potential cannot be resolved by the Papua Provincial Government alone due to limited budget and inadequate human resources. The involvement of other actors in the concept of the Penta-Helix Collaboration was needed. Through Law number 24 of 2019 concerning the Creative Economy, the Central Government has provided a basis for legal certainty to create and develop a creative economy for Regional Governments. Therefore, it can involve the private sector, academics, creative economy entrepreneurs, communities, and the media to play a role in the concept of the Penta-Helix Collaboration in developing the creative economy.

The concept of the Penta-Helix Collaboration shows the role of each actor so that there is no overlapping of roles and is more effective and efficient in its implementation. The government, as the initiator, prepares a forum to develop the creative economy and mediates each actor to play an active role according to his capacity. The division of each actor's roles is inseparable from the creative economy development planning, both short-term, medium-term, and long-term planning. It includes how local governments can determine the superior creative economy sub-sector products to focus on the development process.

Table 1. The Role of Actors in The Penta Helix Collaboration for Creative Economy Development in Papua

Actors	Roles
The Provincial Government of Papua	1. Creating a blueprint for a creative economy development plan that includes a shared vision, shared commitment, development instruments, policy directions, strategic plans, roadmaps, and work program achievement orientations prepared based on short, medium, and long-term stages to facilitate each implementation. 2. They are synergizing the policies of the Papua Provincial Government with Regency/City policies regarding creative economy development. 3. Providing ease of licensing for creative economy business actors 4. Becoming a liaison for suppliers of raw materials and markets with creative economy business actors. 5. They synergize each actor's roles so they can achieve the goals of developing the creative economy.
Private Sector	1. It plays a role in providing support facilities for developing the creative economy sector. 2. Sharing technology that creative economy actors can use 3. Providing funding assistance for creative economy entrepreneurs

Academics/ Higher Education	1. It educates businesses and other actors to improve quality, professionalism, and knowledge by considering local wisdom, especially the Papua people. 2. Implementing innovation and entrepreneurship for creative economy sub-sector actors
Community/ Society	1. It Plays a role in providing input for product development needs. 2. Providing input on resource requirements
Media	1. It Builds a brand image of local products to compete with other products. 2. It Published the products of the creative economy division in Papua Province to expand the market.

Source: Result of Analyzing Data by Authors (2021)

As a supporting actor, the private sector has a vital role in developing the creative economy. The private sector can assist creative economy actors in providing funding to realize creative ideas. In addition, share experience and knowledge in running a business through training or coaching programs, provide facilities, provide partners in the management field, assist in marketing, and help create marketing networks. As a source of knowledge, academics can apply the concepts and theories they have learned in building a creative economy. Academics can increase the knowledge of creative economy actors through knowledge of technology that suits their needs, knowledge of management in managing businesses, and helping to develop other creative ideas. The knowledge transfer process can be carried out by providing training and coaching programs for creative economy actors. The Papua Provincial Government, involving academics, can cooperate with every university in each region to play an active role in developing the creative economy in each region.

In addition, the Papua Provincial Government can encourage each region to form a local creative economy community in each region because the Penta-Helix collaboration concept requires a proactive community response. After all, the source of data or input for creative economy development comes from that group. The community can assist the government in finding committed and creative economic actors. Look for collaboration partners needed by creative economy actors. Find and recommend raw material suppliers, build networks, and recommend public figures who can work together to promote creative economy products. Media has a significant role in developing the creative economy in Papua Province. The Government of Papua Province can utilize the role of media to help and build the businesses of creative economy actors. Media has a role in developing a brand image and promoting creative-economic products. Media utilization helps disseminate creative-economic products massively, expanding the market and increasing the productivity of the creative-economic products. Media is a key actor because it can minimize promotion expenses, simplify communication to potential consumers without limitations of time and place, and choose targets. The role of media is important due to the increase in sales that will encourage the actors to produce continuously. In addition, to meet their business needs, the creative economy actors can also meet their personal needs.

The creative economy development in Papua Province is conducted by collaborating between the actors through the Penta Helix collaboration concept that can help the Papua Provincial Government to actualize the welfare and equity for the Papua people. The creative economy development with the Penta Helix collaboration concept helps the Papua Provincial Government to overcome the obstacles found in the development process. The involvement of the Private sector, academics, community, and media in the creative economy development can cover the weaknesses of the Papua Provincial Government. The utilization of a creative economy becomes important because the Papua people who are far away from the economic

center can have the opportunity to improve their welfare by utilizing creativity from the arts and culture. The involvement of the Papua people, especially the indigenous people of Papua (OAP), in the creative economy will actualize the vision of the Papua Provincial Government, namely "Papua Rise, Independent, Prosperous, and Just."

E. CONCLUSION

The creative economy is the economic development concept that utilizes creativity and human knowledge as a driver. Unlimited human creativity enables the creative economy to reach every level of society, so it needs to be developed. The creative economy development cannot be separated from the involvement of many actors. Business actors in the creative economy sub-sector are constrained by policies, funding, raw materials, product innovation, and lack of education and marketing, making it difficult to increase the quality and productivity of their products.

The creative economy has a significant impact on regional economic improvement. The Government of Papua Province can utilize the potential to actualize the welfare and justice for the Papua people, especially the indigenous people of Papua (OAP). Ethnic and cultural diversity is the main factor that can be utilized by the Government of Papua Province so that the Papua people can prosper according to the wisdom they have, so it is easy to be accepted by the community. The creative-economy development that used a Penta Helix collaboration concept involved the Government, Private, creative economy business actors, community, and media that can help overcome the obstacles in conducting the creative-economy development in Papua Province. As the initiator, the Government of Papua Province builds collaboration with the other actors, so each actor can be involved according to their respective roles that do not overlap. The Penta Helix collaboration allows creative economy business actors to build a massive and widespread brand image to expand the market. The wider the market that can be reached, the higher the expected productivity. Thus, this can affect the increasing labour demand and Papua's People's welfare.

REFERENCES

- Bekraf/BPS. (2017). *Infografis Data Statistik dan Hasil Survei Ekonomi Kreatif*. Jakarta: Bekraf & BPS.
- BPS. (2021). *Nilai Ekspor Migas dan Non Migas*. Nilai Ekspor Migas dan Non Migas. Retrieved from <https://papua.bps.go.id/indikator/8/435/1/nilai-impor-migas-dan-non-migas.html>.
- Denney, A. S., & Tewksbury, R. (2013). How to Write a Literature Review. *Journal of Criminal Justice Education*, 24(2), 218–234. <https://doi.org/10.1080/10511253.2012.730617>.
- Emerson, K., & Nabatchi, T. (2015). *Collaborative Governance Regimes*. Washington, DC: Georgetown University Press.
- Ernawati, E., Susyanti, J., & Salim, M. A. (2019). Pengaruh Modal Usaha dan Lama Usaha Terhadap Pendapatan Usaha (Studi Pada Pelaku Ekonomi Kreatif Sub Sektor Fashion di Kota Malang). *Jurnal Ilmiah Riset Manajemen*, 8(04), 136–148.
- Eskak, E., & Widiastuti, R. (2019). Seni Rias Suku Dani dalam Penciptaan Cenderamata Khas Papua dari Bahan Bambu. *Dinamika Kerajinan dan Batik*, 36(1), 35–46. <https://doi.org/10.22322/dkb.v36i1.4184.g4021>.
- Halibas, A. S., Sibayan, R. O., & Maata, R. L. (2017). The Penta Helix Model of Innovation in Oman: An HEI Perspective. *Interdisciplinary Journal of Information, Knowledge, and Management; Santa Rosa*, 12, 159–172. <https://doi.org/https://doi.org/10.28945/3735>.
- Hardianto, W. T., Sumartono, Muluk, M. R. K., & Wijaya, F. (2019). Penta Helix Synergy on Tourism Development in Batu, East Java. *International Journal of Innovation, Creativity and Change*, 10(6), 137–149.

- Hastyorini, I. R., & Setiadi, I. O. (2019). *Ekonomi Kreatif Menumbuhkan Gagasan Kreatif dan Menciptakan Peluang* (K. Sari, Ed.). Klaten: Cempaka Putih.
- Hisanuddin, L. O. S. I. (2018). *Collaborative Governance Konsep dan Aplikasi* (1st ed.). D I Yogyakarta: Deepublish.
- Kemenparekraf. (2020). *Statistik Ekonomi Kreatif 2020* (B. N. Avianto, Ed.; 1st ed.). Jakarta: Pusat Data dan Sistem Informasi Kementerian Pariwisata dan Ekonomi Kreatif.
- Kemenparekraf. (2021). *Statistik Pariwisata dan Ekonomi Kreatif 2020* (1st ed.). Pusat Data dan Sistem Informasi Kemenparkraf/Baperkraf.
- Lamalewa, F., & Kore, E. L. R. (2020). Pemberdayaan Masyarakat Melalui Ekonomi Usaha Kerajinan Tangan Penyulaman Noken. *Jurnal Ilmu Ekonomi & Sosial*, 11(1), 1–9. <https://doi.org/10.35724/jies.v11i1.2846>.
- Nasarudin, I. Y. (2014). Analisis Kelayakan Ekonomi dan Finansial Usaha Batik Papua Studi Kasus pada Perusahaan Batik Port Numbay Papua. *Jurnal Manajemen Teori dan Terapan Journal of Theory and Applied Management*, 7(1), 65–77. <https://doi.org/10.20473/jmtt.v7i1.2686>.
- BPS Provinsi Papua (2022). *Profil Industri Mikro dan Kecil Provinsi Tahun 2020* (1st ed.). BPS Provinsi Papua.
- Purnomo, R. A. (2016). *Ekonomi Kreatif Pilar Pembangunan Indonesia* (1st ed.). Surakarta: Ziyad Visi Media.
- Saksono, H. (2012). Ekonomi Kreatif: Talenta Baru Pemicu Daya Saing Daerah. *Jurnal Bina Praja*, 04(02), 93–104. <https://doi.org/10.21787/jbp.04.2012.93-104>.
- Sholihin, M. R., Arianto, W., & Khasanah, D. F. (2018). Keunggulan Sosial Media dalam Perkembangan Ekonomi Kreatif Era Digital di Indonesia. *Prosiding 4th Seminar Nasional Dan Call for Papers*, 47–58.
- Sidauruk, R., & Saksono, H. (2018). Ekonomi Kreatif Sebagai Basis City Branding Menuju Kepariwisata Terintegrasi di Kawasan Danau Toba (Creative Economy As Basis Of City Branding Toward Integrated Tourism In Toba Lake Zone). *Inovasi*, 15(2), 83–104. <https://doi.org/10.33626/inovasi.v15i2.95>.
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104(March), 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>.
- Sopannah, Bahri, S., & Ghozali, M. (2020). *Ekonomi Kreatif Berbasis Kearifan Lokal* (Sopannah, Ed.; 1st ed.). Surabaya: Scopindo.
- Sudiana, K., Sule, E. T., Soemaryani, I., & Yunizar, Y. (2020a). The Development and Validation of The Penta Helix Construct. *Business: Theory and Practice*, 21(1), 136–145. <https://doi.org/10.3846/btp.2020.11231>.
- Sudiana, K., Sule, E. T., Soemaryani, I., & Yunizar, Y. (2020b). Discovering Support Needed for Startups in Their Early Stages Using on Penta Helix Framework. *Business: Theory and Practice*, 21(1), 212–221. <https://doi.org/10.3846/btp.2020.10930>.
- UNCTAD. (n.d.). *Creative Economy Programme*. Retrieved September 19, 2022, from <https://unctad.org/topic/trade-analysis/creative-economy-programme>.
- UNCTAD. (2022). *Creative Industry 4.0: Towards a New Globalized Creative Economy*. Retrieved from <https://unctad.org/publication/creative-industry-40-towards-new-globalized-creative-economy>.
- White, D. S., Gunasekaran, A., & H. Roy, M. (2014). Performance Measures and Metrics for the Creative Economy. *Benchmarking: An International Journal*, 21(1), 46–61. <https://doi.org/10.1108/BIJ-03-2012-0017>.