

RESEARCH ARTICLE

Development of Creative Handicrafts Industrial Zones in Rajapolah District, Tasikmalaya Regency: Spatial Recommendation for Village Areas

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Abstract

The creative craft industry in Rajapolah District as the main driver of the regional economy in supporting facilities that still concentrated in one particular area. There have been limited studies concerned on spatial functions in creative spaces. This article addresses the criteria for functions and facilities for the development of creative industrial areas and their application in spatial recommendation for village areas. This research used a quantitative method using instruments on statistical data. Data analysis was divided into three stages namely identification, determining the criteria, and determining spatial functions. The study used the form of production data includes raw materials, labor, product size, product diversity, as well as the distribution of production houses, marketing facilities and education and training. The results showed that the development of creative industrial zones can be identified on criteria functions in the provision of raw materials, production, research and development, and marketing. Some villages have fulfilled the criteria for the function of creative spaces, which are relatively scattered in craft production houses close to the center of village activities. Besides that, it is also relatively far away, however supported by adequate road access. Creative promotion centers in the form of markets, outlets and shops are mostly concentrated on the main road network. Meanwhile, creative education centers in the form of multi-purpose building are relatively concentrated in some villages. Articles contribute to the field of creative industry science which is practically used as a consideration for the government in preparing detailed urban masterplans.

Keywords: Creative industry; Handicrafts; Spatial; Development zone

1. Introduction

The creative industries emphasize creativity, individual skills, and talent in creating jobs and well-being. The focus of this industry is on empowering the inventiveness and creativity of an individual (Ministry of Trade of the Republic of Indonesia, 2008). Creative economy has been widely debated in academic and public policy spheres due to the growing

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relevance of the creative sectors in the economy and its relation to development (Luiz et al., 2019). In the age of knowledge-based economies, open innovation has increasing importance (Yun et al., 2018). Economic growth around the world has been influenced by the creative industries. (Liang & Wang, 2020).

Creativity, cultural policy, and public places are factors influencing the development of the creative industry (Novak, 2019). Organizations, especially within the creative industries, are increasingly faced with limitations while applying classical strategy theories due to changes in social and economic environmental factors (Schmidt et al., 2018). Creative hotspots have become a key role for urban policies to stimulate social, cultural, environmental and organizational growth of creative and knowledge-based clusters, districts and hubs. However, their functional and spatial characteristics vary due to their different evolving structure as new spaces of economic activity in a different contexts (Mengi et al., 2020). The pioneering role of more bottom-up initiatives and innovative urban concepts, springing from the creative industries and movement initiators (Jansen et al., 2021).

The Creative Economy will become a global economic trend in the next few years. Stagnation of economic growth and environmental degradation are increasingly worrying, encouraging the whole world to prioritize creativity in economic life that maximizes the added value of a product of goods and services in the context of the sustainability of human life and civilization (Arifianti et al., 2017). The development of the creative industry as a driving force for economic growth for the economies (Bilan et al., 2019). Creative economy development is the right choice to maintain economic resilience in conditions of global crisis (Romarina., 2016). Creative individuals need to be accommodated by the provision of places or regions that can enhance the creative industries (Richards., 2020). The organically grown, village-based artist clusters can be better nurture creative people than planned arts districts, for these clusters feature a flexible and autonomous land development arrangement, frequent interactions between artists and village residents, and a broad spectrum of entrepreneurial opportunities (Li & Liu, 2019). A presence of creative class attracts other members and further strengthen establishment of other creative sectors which can result in the formation of creative cluster (Baculáková, 2018). The forms of creative industries will create new markets for the Indonesian trade industry (Lucky, 2014).

The Indonesian government promotes "traditional" handicraft businesses that have long been established as creative industries, however pays little attention to the creation of new knowledge and only focuses on heritage value as a selling point (Zul & Koster, 2017). Large-scale industries with excessive promotion can hinder the development of local products

and creative industries (Zhan & Walker, 2018). However, it has often been invisible in the eyes of policy and policymaking (Comunian & England, 2020). Government policy can support the sectors through subsidies, regulations, standardization, and protections at regional and national level (Liu, 2021).

The creative industry in Indonesia is growing rapidly and could not be separated from the support of new media. The use of new media by the creative industry attracts potential consumers not only from within the country but also from abroad (Rusdi & Genep, 2018). Cooperation with competitors does not have a significant impact on innovation, have substantial implications for both practitioners and policymakers interested in enhancing innovation among small creative firms mainly craft sector (Shafi et al., 2019). Craft practices are unique in accommodating local wisdom values (Zhan et al., 2017). The government has established a Creative Economy Agency (BEKRAF) to improve quality and competitiveness with other types of industries. BEKRAF will strengthen cross-sector cooperation to ensure the existence of creative industries. Creative industry concepts can accommodate the interests of science, society, and politics simultaneously (Afrianti & Aditya, 2020).

When viewed from these conditions, small businesses and the informal sector actually have a big role in the economy of Tasikmalaya Regency during the crisis. It can be said that these two types of businesses support economic activity when large-scale businesses experience a downturn due to the crisis. Therefore, the activities of small businesses and the informal sector need to be fostered and developed primarily to meet local needs by using local resources (Tasikmalaya Regency Spatial Plan 2011-2021). This is in line that the concept of the creative industry itself is a creativity-based activity that affects the economy and welfare of the community, such as handicrafts in Batu City (Fitriana, 2014).

SME's currently have a significant impact on the economy of Tasikmalaya Regency even during the current economic crisis and Covid-19 Pandemic (Romano, 2021). When conditions are unfavorable for other economic activities, creative industries in most types of creative industries become the backbone of the driving force of the community and regional economy. Therefore, small businesses and the informal sector need to be fostered and developed especially, to meet local needs by utilizing local resources. In the Tasikmalaya Regency Spatial Plan (RTRW 2011-2021), creative economic activities need to be developed and allocated in a more explicit space. This implementation will undoubtedly be complex for the government to compile a more detailed plan document. The allocation of space needs to be done to ensure a sustainable environment which is a source of raw materials for the creative economy, creative activities, education for the initiators of creative ideas, markets

and of course also an attractive shopping tourism outlet that characterizes an area (Furtwengler, 2021). Creativity always brings exciting things, especially problem-solving ideas, artistic ideas, and ideas that please everyone interested in enjoying and owning creative goods and services produced by individuals or groups. Therefore, a creativity-based economy has always been attractive because it involves the creation of individuals and groups in a location, region, and agglomeration that impacts business (Corazza et al., 2021; Hardman, 2021).

Pandan woven craft is a superior product as a milestone and macroeconomic driver in Rajapolah District, because based on the calculation the production value of this commodity exceeds the value of agricultural products. This commodity is able to absorb quite a lot of labor and has a special characteristic that is not owned by other regions, so it has a long opportunity to continue to be developed. The designs produced on bamboo crafts are the same as patterns made in other Sundanese areas such as Garut, Ciamis, Pangandaran, Kuningan, Cirebon Regencies. The difference is in the design of the Pandan weaving craft pattern, which has a different designation even though the shape is the same. The creative industry is essential in developing the city at the sub-district scale (Khoirunnisa & Aprianingsih, 2019), which already has an activity whose identity grows from the creativity of its people (Inggriyani et al., 2018; Muhtadi et al., 2017). Culture and customs become thematic cities the cultivation (Achdiani et al., 2019; Tuitjer & Dirksmeier, 2021), culture and customs become thematic cities that have a significant impact on regional development (Mantri, 2021; Maryati & Prahmana, 2019).

Based on several previous researchers, they found and published the viewpoint of production management (Achdiani et al., 2019), knowledge management (Cowen & Hodgson, 2015; Fouts et al., 2016; Munns et al., 1996; Nonaka & Peltokorpi, 2006; Takey & Carvalho, 2015), the use of culture as a source of increasing economic activity in the tourism sector (McKercher, 2020; Rahmat, 2017; Shehade & Stylianou-Lambert, 2020), and the last of which is also widely published is cultural and social (Beghetto, 2021; Puozzo & Audrin, 2021; Sawyer, 2021). So far, publications on how creative industries are framed in geographic and spatial space have not been studied by previous researchers. Then, from a social and cultural point of view, this article is presented to strengthen the development of creative industries in the temporal space. The temporal space is related to having a creative area, namely an area with certain geographical boundaries that provide space for creative

actors, government, business, community, and society to express themselves in production, and it increases economic activities by respecting creativity.

The scope of the Creative Zone can be divided into creative villages and cities/districts that have at least one or more creative areas that have: space, center, and creative center. Based on the Ministry of Tourism and Creative Economic, Creative Areas can be created or packaged to become tourist objects with unique attractions that can be created to attract several tourists. To explain the creative zone in a city, we consider the criteria for determining it based on the Bandung City Medium Term Development Plan (RPJMD). In one of the targets of the Bandung City RPJMD, there are five indicators of a creative city, namely creative policies, creative infrastructure, law, ethics, and intellectual property rights; creative capacity and economic contribution (Arifianti et al., 2017). Interpreting development under an overarching framework of innovative entrepreneurial governance, the creative reconfiguration of the built environment (spatial fix) and temporal deferral of crisis and long term speculation on land (re)development (temporal fix) are in place to cope with the crisis of capital accumulation (He, 2017). This article contributes to the field of study of the creative economy and creative industries from a spatial point of view. It helps consider the preparation of a detailed urban master plan.

2. Methods

This study reveals aspects of performance based on quantitative data such as the number of workers, production, the existence of creative facilities (Kementerian Pariwisata dan Ekonomi Kreatif RI, 2014; Rajagukguk, 2018), classification and grouping of space functions (Pipirigeanu et al., 2014). Then, the data needed is more numeric, although some facts are obtained based on interviews and observations, especially social-entrepreneurship skills (Imran, 2013; Yulaikhah et al., 2019). We used a quantitative approach based on the facts needed in researching the problem and the research results. Quantitative research has the character to test theories through the variables used, usually carried out with research instruments consisting of numerical data that can be analyzed based on statistical procedures (Baxter & Jack, 2015; Creswell, 1991).

There are several analyzes carried out, namely (1) Identifying the characteristics of the existing conditions in the handicrafts of Tasikmalaya Regency, which consist of the number of creative handicraft industries, namely the availability of labor, the number of production of the creative handicraft industries, the availability of raw materials, the

marketing of the creative handicraft industries, transportation conditions, and the availability of supporting facilities for the creative handicraft industry; (2) Determining the criteria for the creative industry area space in accordance with the characteristics of the creative handicraft industry. Determination of the criteria for functions and zones for creative industries based on the existence of the number of creative handicraft industries consisting the availability of labor, the number of production of the creative handicraft industries, and the availability of supporting facilities for the creative handicraft industry including craft production houses, craft centers, shop, outlet, market, village-owned enterprises, banks, and cooperative. (3) Determination of the functions and zones of creative industry development consisting of creative spaces, creative education centre and creative promotion centre for handicraft industries in Rajapolah District in Tasikmalaya Regency. In determining the functions and zones of this creative industry, it is carried out through the following stage: 1) Classification of the characteristics of creative industry criteria by using a scoring technique. Scoring is given from the lowest score to the highest score on each creative industry criteria. To calculate the classification analysis on each variable, it is calculated in Eq. 1:

$$\text{Class grouping} = \frac{\text{highest number} - \text{lowest number}}{\text{interval group}} \quad (1)$$

Then, 2) Determination of the functions and zones of the existing creative industries in each village based on the classification of criteria for assessment of both space, creative promotion centre and creative education centre. The function of the creative industry in each village is determined based on a high criterion class value. (4) The formulation of the proposed function of the creative industry in each village is based on the results of determining the existing functions in the previous stage. The proposed creative industry function is in the form of adding functions that do not yet exist or are still low based on an analysis of the existing service functions.

3. Results and Discussion

3.1 Characteristics of The Existing Conditions of The Handicrafts in Rajapolah District

3.1.1 Amount of creative industries of pandan woven handicrafts, Rajapolah District

The pandanus woven handicraft industry in Tasikmalaya Regency is one of the handicrafts of Tasikmalaya Regency which is able to create jobs and absorb quite a lot of labor, especially for the people of Tasikmalaya Regency itself. The area known as the center for the creative industry of pandanus woven handicrafts in Tasikmalaya Regency is Rajapolah District. For more details can be seen in the Table 1. From the Table 1, it can be

seen that the Pandan Weaving Creative Industries Per Village for the last 5 years has neither increased nor decreased.

Table 1. Amount of pandan weaving creative industries per village in Rajapolah District in 2013-2017 ([Department of Industry and Trade of Tasikmalaya Regency, 2021](#))

Village	Business Unit				
	2013	2014	2015	2016	2017
Manggungsari	57	57	57	57	57
Manggungjaya	54	54	54	54	54
Sukaraja	55	55	55	55	55
Rajapolah	73	73	73	73	73
Dawagung	30	30	30	30	30
Rajamandala	26	26	26	26	26
Tanjungpura	16	16	16	16	16
Sukagalih	12	12	12	12	12
Total	323	323	323	323	323

The increase in labor that affects the number of handicraft industries is also influenced by an increase in the number of workers who increase their skills. Creative industries are usually related to tourist destinations in a region ([Ferreira et al., 2018](#)). Intellectual creation offering is a major element and is related to creativity, expertise, and potentially improving the welfare of society ([Yunianto et al., 2021](#)). The need for efforts in creating new knowledge and increasing the value of local heritage in the development of handicrafts in the future. Expectations can further increase the impetus for driving the regional economy ([Fahmi & Koster, 2017](#)). The development of handicrafts in Rajapolah has also expanded these efforts, although improvements are needed at a later stage.

3.1.2 Amount of raw materials for pandan weaving creative industry

In obtaining raw materials for the creative industry of woven pandanus, Rajapolah District, it was obtained from Tasikmalaya District such as Cipatujah and Gombong Districts, Central Java Province. The raw materials for cardboard and glue are obtained from the districts of Tasikmalaya, Tangerang and China. The raw materials used in the process of making woven pandanus rely on raw materials from outside the Tasikmalaya Regency, namely relying on Gombong, Central Java. To find out the existing condition of the place for selling raw materials for the pandanus woven creative industry, it can be seen in the [Table 2](#).

3.1.3 Pandan weaving creative industry marketing

The Tasikmalaya Regency Government through the Industry and Trade Office provides assistance to entrepreneurs to be able to promote and sell pandanus woven products by holding a special exhibition for the creative industry in Tasikmalaya Regency. This event is held 1-2 times a year. From the results of the exhibition and sales, it can increase sales and special requests that are tailored to the wishes of consumers.

The development of information technology in this millennial century must certainly be captured by businesses as a new strategy in marketing their products to be wider and be able to reach all levels of consumers, especially for creative economic actors (Romdonny & Maulany, 2020). Entrepreneurs market their products by promoting them through online media such as social media such as Instagram and Facebook. The entrepreneurs sell the pandanus woven to the industrial center located in Rajapolah District, precisely in Rajapolah Village. Entrepreneurs sell their products outside the Tasikmalaya Regency such as to the city of Bali, Tanah Abang Market, Senen Market Jakarta, Lombok, Central Java and others.

In addition to the national market, this pandanus woven product in Rajapolah District has also penetrated the international market; of which are exported to Japan, China, Spain, Saudi Arabia, the Netherlands, Italy, Egypt and others. The widespread sales of woven pandanus can not be separated from the price of the woven which is relatively cheap and of good quality.

Table 2. Amount of raw materials for creative industry of pandan weaving in Rajapolah District in 2017-2021 (Department of Industry and Trade of Tasikmalaya Regency, 2021)

Village	Quantity of Raw Materials (Sheets)				
	2017	2018	2019	2020	2021
Manggungsari	4,509,600	4,509,600	4,509,600	4,509,600	4,509,600
Manggungjaya	4,447,200	4,447,200	4,447,200	4,447,200	4,447,200
Sukaraja	4,473,600	4,473,600	4,473,600	4,473,600	4,473,600
Rajapolah	5,522,400	5,522,400	5,522,400	5,522,400	5,522,400
Dawagung	780,000	780,000	780,000	780,000	780,000
Rajamandala	528,000	528,000	528,000	528,000	528,000
Tanjungpura	441,600	441,600	441,600	441,600	441,600
Sukanagalih	384,000	384,000	384,000	284,000	284,000
Total	21,086,400	21,086,400	21,086,400	21,086,400	21,086,400



Figure 1. Shop selling pandan woven products in Rajapolah District

3.1.4 Amount of supporting facilities for pandan weaving creative industry

Rajapolah District is designated as the center of the pandanus woven creative industry, so it is not surprising that pandanus woven products from Rajapolah District have reached national and international markets. As an area that is the main road for the province of West Java that connects Tasikmalaya Regency and Bandung City, the location of the Rajapolah craft center is in Rajapolah Village.

The explanation regarding the support of raw materials and the marketing of handicraft products as described previously is in line with the important aspects of the supply chain management approach. Holistically, a professional approach with adequate governmental support could spur the demand while activating the supply-chain. This sector still suffers due to its being unorganized, Lack of education, low capital, inadequate usage of new techniques, and flawed institutional framework (Dayinee, 2021). Rahmasari (2011), explained that through this supply chain management approach, small and medium-sized businesses, especially those based on creative industries, can use this approach to increase the competitiveness of their industry. Because this approach is quite strategic in winning the competition, by focusing on the procurement of logistics. Efficient integration between suppliers, factories, warehouses, and storage, so that goods are produced and distributed in the right quantity, to the right location and at the right time (Table 3). Furthermore, this integration will also affect marketing performance as an important element in the development of handicraft products.

Table 3. Amount of supporting facilities for pandan weaving creative industry (Tasikmalaya Regency Central Bureau of Statistics, 2021)

Village	Store	Village Owned Enterprises	Total
Manggungjaya	1	1	2
Manggung Sari	3	1	4
Sukaraja	16	1	17
Rajapolah	36	1	37
Dawagung	1	1	2
Rajamandala	0	1	1
Tanjungpura	0	1	1
Sukanagalih	3	1	4
Total	60	8	68

3. 2 Determination of Criteria for Creative Industry Zones

Based on previous research, the criteria for determining the zone are limited. One of the literatures, according [Rahmasari \(2011\)](#) reveals the need for efficient integration between suppliers (suppliers), factories (manufactures), warehouses (warehouses), and storage (stores). But the literature also does not describe the criteria for assessing creative industry zones. We formulated that the assessment criteria for the three spaces in the form of a creative room, a creative promotion center and a creative education center, can be explained based on the industrial development functions in the form of creation and production functions, promotion and marketing, and product development. The three functions and their space can be identified with the assessment criteria. Creative space assessment criteria in the form of amount of pandan weaving production; pandanus weaving creative industries; availability of manpower for the creative industries; product diversity and have a creative individual. The criteria for evaluating creative promotion centers are the presence of showrooms, shops/markets, factory outlets and financial institutions (bumdes and cooperatives). Meanwhile, the criteria for creative education centers are the existence of pandanus weaving training facilities and research and development facilities. These criteria are used to study the determination of creative industry zones.

3. 3 Characteristics and Classification of Creative Craft Industries

3.3.1 Analysis of the classification level distribution of the amount of pandan weaving creative industries

The location of the pandanus woven creative industry is spread across all villages in Rajapolah District. Each village has several different pandanus woven creative industries and most of them were located in Rajapolah Village. For more details can be seen in the [Table 4](#).

Table 4. Classification levels of distribution of pandan weaving creative industries in Rajapolah District

Village	Business unit	Percentage	Information
Manggungsari	57	17.70	high
Manggungjaya	54	16.77	high
Sukaraja	55	17.08	high
Rajapolah	73	22.67	high
Dawagung	30	9.32	low
Rajamandala	25	7.76	low
Tanjungpura	16	4.97	low
Sukanagalih	12	3.73	low
Total	322	100	-

3.3.2 Analysis of classification level availability of number of labors

The availability of labor in an industrial company has a very important role, because the role of labor is needed in the production process. In the location of the pandanus woven creative industry, most of the workers are local residents or natives of the area. The development of the pandanus woven creative industry in Rajapolah District can absorb quite a lot of labor, especially for women so that it can reduce unemployment and increase community income, especially people in Rajapolah District, for more details can be seen in the [Table 5](#).

Table 5. Classification levels of availability of availability of manpower for the creative industries of pandan weaving in Rajapolah District 2017-2021

Village	Total Manpower	Percentage	Category
Manggungsari	1,879	21.39	high
Manggungjaya	1,853	21.09	high
Sukaraja	1,864	21.22	high
Rajapolah	2,301	26.19	high
Dawagung	325	3.70	low
Rajamandala	220	2.50	low
Tanjungpura	184	2.09	low
Sukanagalih	160	1.82	low
Total	8,786	100	-

3.3.3 Analysis of the classification level of pandan woven product diversity

In the development of the creative industry, especially the pandanus woven creative industry, one must have high creativity in developing its products. Completely new and unique creations have the potential to create diverse products. Although it is in the form of doing creations, the unique style of local products still needs to be a concern. This is in accordance with the view that the economy (society) must be carried out by local actors and does not prioritize profit alone in the development of the creative industry (Putri et al., 2020). Innovation is also needed in the development of creative industries.

The concept of innovation geography includes innovation elements in the form of actors, organizations including production processes. Actors in innovation include not only individual scientists and inventors, but also the organizations that employ them, such as universities and companies. Entrepreneurs are very decisive for innovation to be developed (Malecki, 2021). The development of handicrafts in Rajapolah has also expanded these efforts, although improvements are needed at a later stage. In Rajapolah District, there are various kinds of products produced from pandanus woven entrepreneurs scattered in villages in Rajapolah District. To be able to know the diversity of the products of the pandanus woven creative industry, it can be seen in the Table 6.

Table 6. Classification levels of pandan woven product diversity in Rajapolah District

Village	Types of Products	Number of Product Types	Information
Manggungsari	Handbags, handbags, shoulder straps, purses, boxes, tissue boxes, flip flops, high heels, sandals, wallets, shoe racks, parcel boxes, aqua boxe, wedding gifts, multipurpose baskets, multipurpose tubes, mini drawers, places makeup	18	moderate
Mangungjaya	Hand tote bag, shoulder strap handbag, box, tissue box, flip flops, sandals, high heels, wallet, shoe rack, parcel box, multipurpose basket, multipurpose tube, food placemat	13	moderate
Sukaraja	Hand tote bag, shoulder strap handbag, sling bag, multipurpose basket, mini drawer, makeup holder, folder holder, office desk top mat, curtain fastener, food placemat, sofa cushion, box, tissue box, wallet, shoe rack, parcel box , glass frame, hat, trash can, aqua box, night light	22	high
Rajapolah	Tote bag, shoulder strap handbag, clutch bag, multipurpose basket, mini drawer, makeup	24	high

Village	Types of Products	Number of Product Types	Information
	holder, folder holder, office desk top mat, curtain fastener, food placemat, sofa cushion, box, tissue box, wallet, shoe rack, parcel box , flip flops, flip flops, high heels sandals, trash can, aqua box, bed lamp, photo frame, mat		
Dawagung	Multipurpose basket, multipurpose box, delivery box, multipurpose tube, tissue box, wallet, purse, tote bag, shoulder strap handbag	9	low
Rajamandala	Multipurpose basket, multipurpose box, delivery box, multipurpose tube, tissue box, wallet, purse, tote bag, shoulder strap handbag, parcel basket, food placemat, multipurpose tube, makeup holder	13	moderate
Tanjungpura	Multipurpose basket, multipurpose box, delivery box, multipurpose tube, tissue box, wallet, purse, tote bag, shoulder strap handbag	9	low
Sukanagalih	Multipurpose basket, multipurpose box, tissue box, clutch bag, tote bag, shoulder strap handbag	6	low
Total		12	-

3.3.4 Analysis of classification level amount of production of pandan weaving creative industry

The pandanus woven creative industry does not experience an increase or decrease every year, it tends to remain constant, only the value of the investment price changes. The production of plaiting in Rajapolah District is very diverse depending on the products produced, the more diverse the products, the higher the production will be. For more details, see the [Table 7](#).

Table 7. Classification levels of amount of pandan weaving production in Rajapolah District in 2017-2021

Village	Production/Year (Unit)	Percentage	Cetegory
Mangungsari	72,153,600	21.39	high
Mangungjaya	71,155,200	21.09	high
Sukaraja	71,577,600	21.22	high
Rajapolah	88,358,400	26.19	high
Dawagung	12,480,000	3.70	low
Rajamandala	8,448,000	2.50	low
Tanjungpura	7,065,600	2.09	low
Sukanagalih	6,144,000	1.82	low
Total	337,382,400	100	-

3.3.5 Analysis of facility classification level

The pandanus weaving training facility available in Rajapolah District is the Multipurpose Building. For more details, see the [Table 8](#).

Table 8. Classification levels of number of pandan weaving training facilities in Rajapolah District

Village	Multipurpose Building	Total	Percentage	Information
Manggungjaya	1	1	12.5	high
Manggungsari	1	1	12.5	high
Sukaraja	1	1	12.5	high
Rajapolah	1	1	12.5	high
Dawagung	1	1	12.5	high
Rajamandala	1	1	12.5	high
Tanjungpura	1	1	12.5	high
Sukanagalih	1	1	12.5	high
Total	8	8	100	-

3.3.6 Analysis of supporting facilities classification level

The pandanus woven support facilities available in Rajapolah District are shops and village owned enterprises. For more details, see the [Table 9](#).

Table 9. Classification levels of number of pandan weaving training facilities in Rajapolah District

Village	Shop/FO	Village Owned Enterprises	Total	Percentage	Information
Manggungjaya	1	1	2	2.94	low
Manggungsari	3	1	4	5.88	low
Sukaraja	16	1	17	25.00	moderate
Rajapolah	36	1	37	54.41	high
Dawagung	1	1	2	2.94	low
Rajamandala	0	1	1	1.47	low
Tanjungpura	0	1	1	1.47	low
Sukanagalih	3	1	4	5.88	low
Total	60	8	68	100	-

From several analyzes that have been carried out, it is necessary to conduct an assessment to produce a proposal for the development of creative industrial space in Rajapolah District. For more details can be seen in the [Table 10](#).

Table 10. Assessment and proposed development of pandan weaving creative industry

No	Village	Creative Space			Creative Education Centre		Creative Promotion Centre		Existing Conclusion	Development Proposal
		Have a Creative Individual	High Number of Labors	High Product Diversity	Number of Places for Research and Development and Training	High Production Quantity	There are Factory Outlets/ Showroom /Shop/Market	There are Financial Institutions (BUMDes and Cooperatives)		
1	Manggungsari	✓	✓	✓	✓	✓		✓	Creative Education Centre and Creative Space	Directed as Creative Space, Creative Education Centre, and Creative Promotion Centre
2	Manggungjaya	✓	✓	✓	✓	✓	✓	✓	Creative Space, Creative Education Centre, and Creative Promotion Centre	Directed as Creative Space, Creative Education Centre, and Creative Promotion Centre
3	Sukaraja	✓	✓	✓	✓	✓	✓	✓	Creative Space, Creative Education Centre, and Creative Promotion Centre	Directed as Creative Space, Creative Education Centre, and Creative Promotion Centre
4	Rajapolah	✓	✓	✓	✓	✓	✓	✓	Creative Space, Creative Education Centre, and Creative Promotion Centre	Directed as Creative Space, Creative Education Centre, and Creative Promotion Centre
5	Dawagung	✓			✓			✓	Does not meet the	Directed as a Creative Space and Creative Promotion Centre
6	Rajamandala	✓		✓	✓			✓	Does not meet the	Directed as a Creative Space and Creative Promotion Centre
7	Tanjungpura	✓			✓			✓	Does not meet the	Directed as a Creative Space and Creative Promotion Centre
8	Sukanagalih	✓			✓			✓	Does not meet the	Di Directed as a Creative Space and Creative Promotion Centre

Note :

Creative Space: 3 criteria for creative space are met;

Creative Education Centre: 2 criteria for creative education centre are met;

Creative Promotion Centre: meets 3 criteria as a creative promotion centre.



The analysis in this study provides an overview of the assessment of creative industry zones and spatial distribution in the sub-district area. From several previous studies, it is very limited to provide an explanation of the creative industry zone and only choose one or two criteria in assessing the creative industry. Through the assessment of the creative industry zone, three creative spaces can be determined that show the link between production and marketing, and are related to the supply chain concept.

Each creative space shows a different dominant function, first, a creative space that shows creative and production functions which are realized with objects in the form of handicraft production houses. The second room is a creative promotion center that shows promotion and marketing functions, which are realized by the objects of showrooms, shops/markets, factory outlets and financial institutions (BUMDes and cooperatives). While

the third room is a creative education center that shows the function of product development, realized by an object in the form of a multi-purpose building that functions for training facilities as well as research and development.

Based on [Table 10](#), it produces an assessment for the direction of developing creative spaces, creative education centre, and creative promotion centre. The concentration of activities and creative spaces in 4 (four) villages/kelurahan in Rajapolah District is influenced by the agglomeration economy. Concentration of activities in the form of an agglomeration economy is important for creative industries. The urbanization economy that results from the diversity in the service industry is the main source of the agglomeration economy. Furthermore, the availability of communication, represented by digital access and the convenience of transportation, increases knowledge and thereby improves the urbanization economy ([Tao et al., 2019](#)). This is also reinforced by the tendency that creative companies are more clustered than producer service companies and other urban facilities, including in Shanghai. The results show that urban amenities are stronger in explaining local attractiveness, including co-location, accessibility, and high density clusters. This condition strengthens the relationship between industrial agglomeration and creativity ([Wu et al., 2022](#)). This condition strengthens the agglomeration of creative activities in Rajapolah District.

The three spatial functions that can be explained by their spatial distribution also show relatively rare results from previous studies. Based on [Figure 2](#), it can be seen that the distribution of creative zones in the form of creative spaces, creative education centre and creative promotion centre is found in 4 villages/kelurahan, namely Manggungsari Village, Manggungjaya Village, Sukaraja Village, and Rajapolah Village. Creative space is relatively spread out in handicraft production houses which are close to village activity centers and at a relatively longer distance but with adequate road access support. Creative promotion centre in the form of markets, outlets, and shops are mainly concentrated on the main road network. Meanwhile, the creative education centre in the form of GSG (Multipurpose Building) is relatively concentrated in the area of 3 villages.

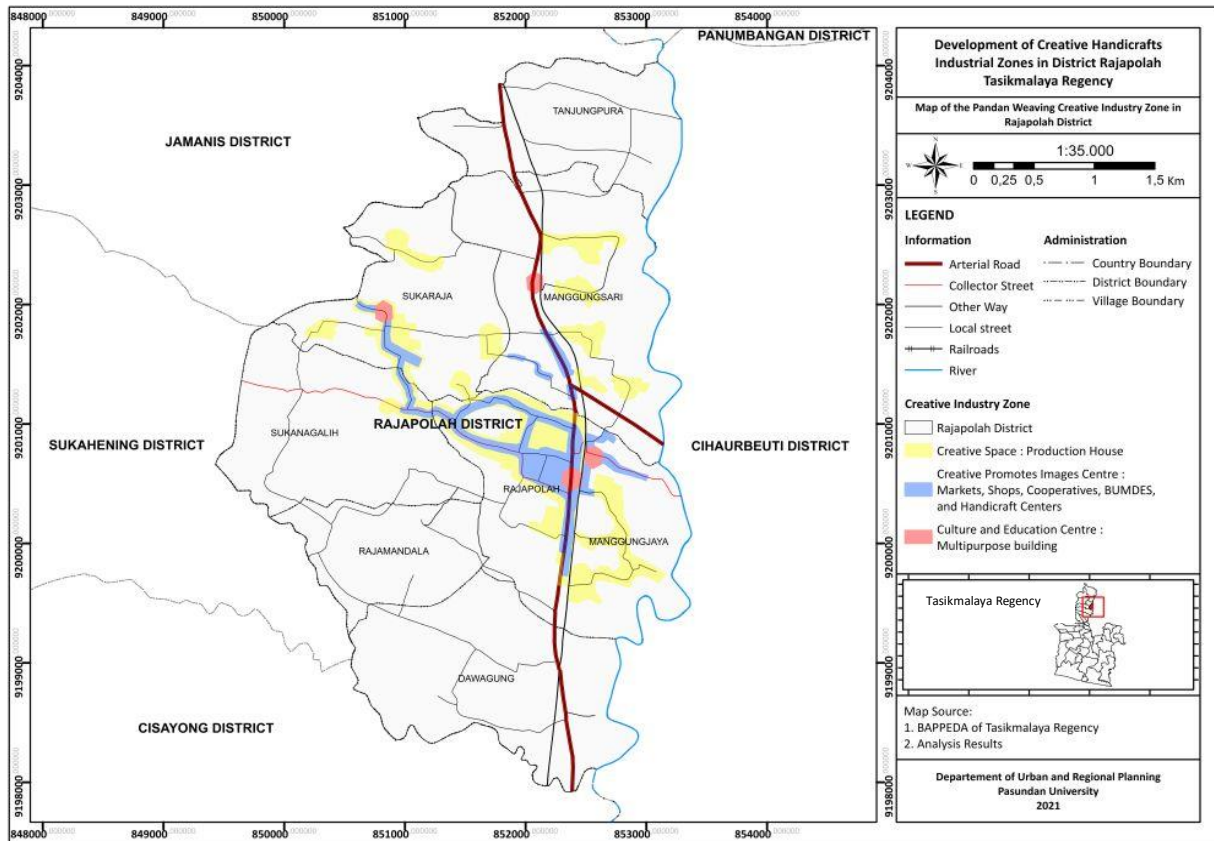


Figure 2. Map of the pandan weaving creative industry zone in Rajapolah District

3.4 Assessment Analysis and Recommendations for Creative Industry Space Development

The results of the analysis that show the determination of the creative industry zone in the Rajapolah District Region, can be input for the proposed development of the creative industry zone. This proposal is of course also an enrichment of the limitations of previous studies related to development directions based on the analysis of the determination of the three creative spaces that have been formulated previously. Analysis of assessments and recommendations for the development of creative industrial space is prepared by looking at the existing conditions and proposed developments, so that an assessment is obtained from each village by providing recommendations for the development of the function of the creative industry space. For villages whose existing conditions do not meet the criteria for creative industry spaces, the initial proposal is directed as creative spaces and creative promotion centre first as supporters of villages that are directed as creative education centre. The following are some recommendations for additional facilities to meet the criteria for creative spaces according to the development proposals that have been directed.

To increase the economic potential in this regency, it is necessary to map the creative industries as dynamic sectors. Currently, there is no mapping data available about the creative

industry development to be used as a basis for government policy-making and or decision-making in developing the creative economy (Rahmah et al., 2020). Efforts to improve the performance of creative spaces are also influenced by strategic policy approaches that encourage successful development of cultural products and for job creation and poverty reduction. Therefore, non-governmental organizations, provincial governments, and private organizations who cannot afford, but willing, needs help to provide the support and basic infrastructure needed to implementation of the program towards the development of the craft sector and continue to create more training program (Oluwayemisi et al, 2020). This also needs to be developed in Rajapolah District in developing its creative industry.

The first stage in creative industry product innovation is often found to be in the form of agglomeration and is characterized by: 1) the need to meet the required inputs and the need to change inputs as often as possible during the innovation period, 2) the need for entrepreneurs to market products to a wide market. These two signs are in line with the criteria for creative spaces and creative promotion centre as existing functions which are recognized in the pandanus woven creative industry as the focus of this study.

Taking into account the existing conditions, a proposal for the development of the pandanus woven creative industry was determined in each village, so that to realize the proposed development, several recommendations for additional facilities were given. Villages that are directed as a creative space, creative education centre and creative promotion centre of the Village Manggungjaya, Manggungsari village, Talbot Village, and the village Rajapolah. The surrounding villages as supporters of the creative education centre are Dawagung Village, Rajamandala Village, Tanjungpura Village, and Sukanagalih Village. The creative industry development proposal is also in line with the creative economy development model, especially in the form of efforts to increase the number of industries, the number of workers (HR), product diversity and financial and marketing support institutions. The creative economy development model must be based on the development of skilled, trained and empowered human resources to develop knowledge and creativity. Apart from HR, there are 5 other pillars in the form of (1) industry; (2) technology; (3) resources (raw materials); (4) institutions; and (5) financial intermediary institutions (Puspitasari, 2013).

Table 11. Assessment and recommendations for the development of the pandan weaving creative industry

No	Village	Existing Conclusion	Development Proposal	Recommended Addition of Facilities
1	Manggungjaya	Creative Education Centre and Creative Space	Directed as Creative Space, Creative Education Centre, and Creative Promotion Centre	Need additional Shops/FO (shops where pandan woven products are sold)
2	Manggungsari	Creative Space, Creative Education Centre, and Creative Promotion Centre	Directed as Creative Space, Creative Education Centre, and Creative Promotion Centre	It is appropriate between the existing conditions and the proposed development
3	Sukaraja	Creative Space, Creative Education Centre, and Creative Promotion Centre	Directed as Creative Space, Creative Education Centre, and Creative Promotion Centre	It is appropriate between the existing conditions and the proposed development
4	Rajapolah	Creative Space, Creative Education Centre, and Creative Promotion Centre	Directed as Creative Space, Creative Education Centre, and Creative Promotion Centre	It is appropriate between the existing conditions and the proposed development
5	Dawagung	Does not meet the	Directed as Creative Space, and Creative Promotion Centre	<ol style="list-style-type: none"> 1. Need to add: <ol style="list-style-type: none"> a. Number of Industries b. Total manpower c. Product Diversity d. Shops/FO (shops where pandanus woven products are sold) 2. Need to improve road network condition
6	Rajamandala	Does not meet the	Directed as Creative Space, and Creative Promotion Centre	<ol style="list-style-type: none"> 1. Need to add: <ol style="list-style-type: none"> a. Number of Industries b. Total manpower c. Shops/FO (shops where pandanus woven products are sold) 2. Need to improve road network condition
7	Tanjungpura	Does not meet the	Directed as Creative Space, and Creative Promotion Centre	<p>Need to add:</p> <ol style="list-style-type: none"> 1. Number of Industries 2. Total manpower 3. Product Diversity 4. Shops/FO (shops where pandanus woven products are sold)

No	Village	Existing Conclusion	Development Proposal	Recommended Addition of Facilities
8	Sukanagalih	Does not meet the	Directed as Creative Space, and Creative Promotion Centre	Need to add: 1. Number of Industries 2. Total manpower 3. Product Diversity 4. Shops/FO (shops where pandan woven products are sold)

To further increase the success of the development of creative industry zones, a bottom-up approach needs to be considered. This bottom-up approach prioritizes input from community groups and industrial business actors, especially in terms of determining the functions, criteria and facilities that need to be provided. This is in line with [Li & Liu \(2019\)](#) which conveys the success of bottom up compared to top down in developing creative industries, especially supported by considerations of flexibility and autonomy in structuring industrial land as well as frequent interactions between business actors/artists and villagers as well as increasing the spectrum of entrepreneurial opportunities.

In addition, the government needs to provide support to improve the ability to implement production, marketing and distribution strategies. This capacity improvement is needed in line with [Wondirad \(2021\)](#), because the community still practices handicraft production with its relatively traditional business development strategy. Increasing the added value of the handicraft industry is also carried out through improving relations between local and international producers or consumers. This pattern of linkage also occurs in Rajapolah District, especially in the development of overseas marketing. This is in line with the results of [Oyekunle & Sirayi \(2018\)](#) which describes the relationship of the South African government with foreign companies that can play a key role in developing creative businesses and can shift to higher quality products and processes. However, a supporting development strategy must still be carried out around empowering local companies and building a full range of fiscal, trade, financial and competitive strategies intended to strengthen links between local and international producers. This is done with the specific end goal of increasing understanding of the creative industries in South Africa and to better educate policymakers and support evidence-based policy and decision-making.

Increasing the competitiveness of the handicraft industry on a broad scale can be improved through efforts to increase access to transportation, products and increase information to both suppliers and consumers. It is also explained by [Dou et al. \(2021\)](#) that

efforts to increase industrial competitiveness through improving transportation services, increasing intellectual property even though it only has a positive and significant effect on industry in developed countries and improvements in information technology also play an important role. The conditions in Rajapolah are in line with these conditions, although it is necessary to increase competitiveness in the future. The hand woven crafts in Rajapolah also show advantages over other areas in West Java. This is in line with [Fan & Feng \(2019\)](#) that the handicraft industry can show a competitive advantage in this period which is influenced by the style or style of products, materials, and skills, as well as government contributions and consumer demand. Therefore, the development of traditional crafts today requires government protection and internal transformation and industrial innovation. The development of the craft industry is also related to preservation that can be passed on to the next generation as also happened in Rajapolah District. This is in line with [Yang et al. \(2018\)](#) that most of the related literature focuses on the preservation of the built heritage. The development of traditional crafts contributes to the sustainability of livelihoods so it is necessary to ensure the transmission of skills and practices related to handicrafts from generation to generation.

The development of traditional crafts triggers spatial changes including local public spaces, the re-establishment of local architecture, and the development of cultural landscapes. All three can also be observed in the conditions in Rajapolah Tasikmalaya handicrafts. Traditional crafts can develop the local economy and be involved in cultural construction. This will ensure the natural continuation of the local heritage and culture and the strengthening and development of the premises ([Zhang et al., 2021](#)). The development of the handicraft industry in Rajapolah is also related to the development of local wisdom. This is in line with the development of the creative industry in the Special Region of Yogyakarta, which is motivated by local cultural wisdom originating from customary law communities ([Yunianto et al, 2021](#)). Not only talking about local culture but information technology is also a form of creative industry. The development of creative industry business activities or small and medium industries (IKM) in the Yogyakarta region experienced significant production growth, sourced from the ministry of industry (Kemenperin) in the 2017 quarter. There was a growth of up to 17.28 percent compared to the same period in 2016. This growth exceeded the growth industry at the national.local level and engage in cultural construction.

With the various descriptions that have been submitted, this study can enrich the four contents of the development of creative industrial zones and fill in the limitations of previous studies. The first content relates to the determination of the criteria for three creative industry

zone spaces; the second content relates to determining the function of the creative industrial zone space which is supported by creative and production functions, promotion and marketing as well as the development of creative industrial products; the third content is in the form of determining the spatial/spatial distribution of the creative industry zone which is realized with various relevant zone objects and the fourth content is the enrichment of efforts to develop creative industrial zones based on the results of the analysis of the determination that has been produced previously.

4. Conclusion

The formulation of assessment criteria for the three spaces in the form of creative space, creative promotion center and creative education center, can be explained based on industrial development functions in the form of creation, production functions, promotion, marketing and product development. In more detail, the criteria for assessing creative space functions and zones consist of the size of the industry, production, workforce and creative individuals; existence of marketing facilities and training facilities. Several villages have met the criteria for the function of creative spaces, which are relatively scattered in craft production houses which are close to the center of village activities and are also relatively far away but supported by adequate road access. Creative promotion centers in the form of markets, outlets and shops are mostly concentrated on the main road network. Meanwhile, creative education centers in the form of multi-purpose buildings are relatively concentrated in several villages. Recommendations for further studies are in the form of further identification of supporting infrastructure in the development of creative industrial zones and their integration with development directions based on detailed spatial planning directions for the development of related areas. Suggestions that can be submitted for the implementation of this report are that in the future it is suggested that the government can focus more on developing creative industries, especially weaving and other types as regional potential, it is hoped that this report can be a consideration in industrial development and be a consideration in the formulation of determining service centers in the product of the detailed spatial plan.

Conflict of Interest

The authors declare that there is no conflict of interest with any financial, personal, or other relationships with other people or organizations related to the material discussed in this article.

References

- Achdiani, Y., Widiaty, I., Suciati, Nikmawati, E. E., & Rahmafitria, F. (2019). Developing educational videos on kampung adat cireundeu based on ethno-technopegagogy approach. *Journal of Engineering Science and Technology*, *14*(5), 2565–2575.
- Afrianti R., & Aditya H. (2020). Industry Revolution 4.0: Strengthening the Creative Economy Sectors through BEKRAF Implementation Programs. *TRANSBORDERS: International Relations Journal*, *3*(2), 28-43. <http://dx.doi.org/10.23969/transborders.v3i2.2188>.
- Arifianti, R., Mohammad, D., & Alexandri, B. (2017). Activation of Creative Sub-Economic Sector in Bandung City. *Jurnal AdBispreneur*, *2*(3), 201-209.
- Baculáková, K. (2018). Cluster analysis of creative industries in the regions and districts of Slovakia. *Theoretical and Empirical Researches in Urban Management*, *13*(3), 74-89.
- Baxter, P., & Jack, S. (2015). Qualitative Case Study Methodology: Study Design and Implementation for Notice Researchers. *The Qualitative Report*, *20*(2), 134–152.
- Beghetto, R. A. (2021). There is no creativity without uncertainty: Dubito Ergo Creo. *Journal of Creativity*, *31*, 100005. <https://doi.org/10.1016/j.yjoc.2021.100005>.
- Bilan, Y., Vasilyeva, T., Kryklii, O., & Shilimbetova, G. (2019). The creative industry as a factor in the development of the economy: dissemination of European experience in the countries with economies in transition. *Creativity Studies*, *12*(1), 75-101. <https://doi.org/10.3846/cs.2019.7453>.
- Comunian, R., & England, L. (2020). Creative and cultural work without filters: Covid-19 and exposed precarity in the creative economy. *Cultural Trends*, *29*(2), 112-128. <https://doi.org/10.1080/09548963.2020.1770577>.
- Corazza, G. E., Reiter-Palmon, R., Beghetto, R. A., & Lubart, T. (2021). Intelligence and creativity in the space-time continuum for education, business, and development. *Journal of Creativity*, *31*, 100003. <https://doi.org/10.1016/j.yjoc.2021.100003>.
- Cowen, M., & Hodgson, D. (2015). Damaged identities: Examining identity regulation and identity work of Gulf project managers. *International Journal of Project Management*, *33*(7), 1523–1533. <https://doi.org/10.1016/j.ijproman.2015.06.009>.
- Creswell, J. W. (1991). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. (S. Cornelly, Ed.), Sage (Vol. 8). California: SAGE Publications. Inc. <https://doi.org/10.2307/1523157>.
- Dayinee V. (2021). Issues and Challenges of Zari-Zardozi Industry: An Analysis, *Indian Journal of Adult Education*, *82* (1), 128 136.
- Department of Industry and Trade of Tasikmalaya Regency. (2021). *Indutri Kreatif di Tasikmalaya*. Tasikmalaya : Dinas Perindustrian dan Perdagangan Tasikmalaya.

- Dou, Z., Wu, B., Sun, Y., & Wang, T. (2021). The Competitiveness of Manufacturing and Its Driving Factors: A Case Study of G20 Participating Countries. *Sustainability*, 13(3), 1143. <https://doi.org/10.3390/su13031143>.
- Fahmi, F. Z., & Koster, S. (2017). Creative industries and regional productivity growth in the developing economy: Evidence from Indonesia. *Growth and Change*, 48(4), 805-830. <https://doi.org/10.1111/grow.12212>.
- Fan, K. K., & Feng, T. T. (2019). Discussion on sustainable development strategies of the traditional handicraft industry based on su-style furniture in the ming dynasty. *Sustainability*, 11(7), 2008. <https://doi.org/10.3390/su11072008>.
- Ferreira, J., Sousa, B. M., & Gonçalves, F. (2018). Encouraging the subsistence artisan entrepreneurship in handicraft and creative contexts. *Journal of Enterprising Communities: people and places in the global economy*, 13, 64-83.
- Fitriana, A. N. (2014). Pengembangan Industri Kreatif di Kota Batu (Studi Tentang Industri Kreatif Sektor Kerajinan Di Kota Batu). *Jurnal Administrasi Publik*, 2(2), 281-286.
- Fouts, H. N., Neitzel, C. L., & Bader, L. R. (2016). Work-themed play among young children in foraging and farming communities in Central Africa. *Behaviour*, 153(6-7). <https://doi.org/10.1163/1568539X-00003362>.
- Furtwengler, S. R. (2021). Development of a creativity orientation scale using EFA. *Journal of Creativity*, 31, 100004. <https://doi.org/10.1016/j.yjoc.2021.100004>.
- Hardman, T. J. (2021). Understanding creative intuition. *Journal of Creativity*. *Journal of Creativity*, 31, 100006. <https://doi.org/10.1016/j.yjoc.2021.100006>.
- He, S. (2019). The creative spatio-temporal fix: Creative and cultural industries development in Shanghai, China. *Geoforum*, 106, 310-319. <https://doi.org/10.1016/j.geoforum.2017.07.017>.
- Imran, S. (2013). Fungsi tata ruang dalam menjaga kelestarian lingkungan hidup Kota Gorontalo. *Jurnal Dinamika Hukum*, 13(3), 457-467.
- Inggriyani, F., Ali, S., & Fauzy, D. M. (2018). Pemanfaatan Website Pemasaran Bagi Pelaku Kerajinan Usaha Anyam Mendong di Kecamatan Rajapolah Kabupaten Tasikmalaya. *Jurnal SOLMA*, 7(2), 193. <https://doi.org/10.29405/solma.v7i2.2009>.
- Jansen, M., Brandellero, A., & van Houwelingen, R. (2021). Port-City Transition: Past and Emerging Socio-Spatial Imaginaries and Uses in Rotterdam's Makers District. *Urban Planning*, 6(3), 166-180. <https://doi.org/10.17645/up.v6i3.4253>.
- Kementerian Pariwisata dan Ekonomi Kreatif RI. (2014). *Ekonomi Kreatif: Kekuatan Baru Indonesia Menuju 2025*. Jakarta : Kementerian Pariwisata dan Ekonomi Kreatif RI.
- Khoirunnisa, A. F., & Aprianingsih, A. (2019). Proposed Marketing Strategy to Improve Performa Kponce of Cupumanik Sundanese Puppets and Souvenir Store. In *Proceedings of the 2nd International Conference on Inclusive Business in the*

Changing World (pp. 400–405). <https://doi.org/10.5220/0008431804000405>.

- Li, X., & Liu, R. (2019). Urban villages as incubators of creative clusters: the case of Guangzhou. *International Development Planning Review*, 41(3), 375-398.
- Liang, S., & Wang, Q. (2020). Cultural and creative industries and urban (re) development In China. *Journal of Planning Literature*, 35(1), 54-70. <https://doi.org/10.1177/0885412219898290>.
- Liu, Z. (2021). The Impact of Government Policy on Macro Dynamic Innovation of the Creative Industries: Studies of the UK's and China's Animation Sectors. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(3), 168. <https://doi.org/10.3390/joitmc7030168>.
- Lucky, N. R. (2014). Creative Industries in Facing the Asean Free Market in 2015, *Journal of Legal Insights*, 30 (1), 97 – 105.
- Luiz J, Santos D, Tavares D, & Lohmann C. (2019). The development potential index of creative economy for Brazilian federal state capitals, *Creative Industries Journal*, 12 (2), 185–203.
- Malecki E. (2021). *Handbook of Regional Science, The Geography of Innovation*, Ohio: Department of Geography Ohio State University Columbus USA
- Mantri, Y. M. (2021). The Preservation Effort of Sundanese Traditional Game Kaulinan Barudak for Increasing Local Culture Resilience. *Jurnal Silatene (Jurnal Sosial Humaniora)*, 1(1), 23–35.
- Maryati, M. & Prahmana, R. C. I. (2019). Ethnomathematics: Exploration of the muntuk community. *International Journal of Scientific and Technology Research*, 8(6), 47–49.
- McKercher, B. (2020). Cultural tourism market: a perspective paper. *Tourism Review*, 75(1), 126–129. <https://doi.org/10.1108/TR-03-2019-0096>.
- Mengi, O., Bilandzic, A., Foth, M., & Guaralda, M. (2020). Mapping Brisbane's Casual Creative Corridor: Land use and policy implications of a new genre in urban creative ecosystems. *Land Use Policy*, 97, 104792. <https://doi.org/10.1016/j.landusepol.2020.104792>.
- Ministry of Trade of the Republic of Indonesia (2008). *National Creative Industry Development Work Program 2009-2015*, Jakarta : Ministry of Trade of the Republic of Indonesia.
- Muhtadi, D., Sukirwan, Warsito, & Prahmana, R. C. I. (2017). Sundanese ethnomathematics: Mathematical activities in estimating, measuring, and making patterns. *Journal on Mathematics Education*, 8(2), 185–198. <https://doi.org/10.22342/jme.8.2.4055.185-198>.
- Munns, A. K., & Bjeirmi, B. F., Munns, A. K., & Bjeirmi, B. F. (1996). The role of project management in achieving project success. *International Journal of Project Management*, 14(2), 81–87. <https://doi.org/10.22342/jme.8.2.4055.185-198>.

- Nonaka, I., & Peltokorpi, V. (2006). Objectivity and subjectivity in knowledge management: A review of 20 top articles. *Knowledge and Process Management*, 13(2), 73–82. <https://doi.org/10.1002/kpm.251>.
- Novak, D. (2019). The arts of gentrification: Creativity, cultural policy, and public space in Kamagasaki. *City & Society*, 31(1), 94-118. <https://doi.org/10.1111/ciso.12195>.
- Oluwayemisi A, Oyekunle A, & Muchie M. 2020. Handicraft small enterprises as an instrument for rural economic growth and poverty eradication, *Problems and Perspectives in Management*, 18(4), 25-36.
- Oyekunle, O. A. A., & Sirayi, M. (2018). The role of creative industries as a driver for a sustainable economy: A case of South Africa. *Creative Industries Journal*, 11(3), 225-244. <https://doi.org/10.1080/17510694.2018.1480850>.
- Pipirigeanu, M., Zaman, G., Strasser, H., Aramă, R., & Strasser, C. (2014). Academic Entrepreneurship and Scientific Innovation in Context of Bio-economy Strategy. *Procedia Economics and Finance*, 8(14), 556–562. [https://doi.org/10.1016/S2212-5671\(14\)00128-2](https://doi.org/10.1016/S2212-5671(14)00128-2).
- Puozzo, I. C., & Audrin, C. (2021). Improving self-efficacy and creative self-efficacy to foster creativity and learning in schools. *Thinking Skills and Creativity*, 42, 100966. <https://doi.org/10.1016/j.tsc.2021.100966>.
- Puspitasari, H. (2013). Small and Medium Industry Development Planning Towards Creative Economy. *Scientific Journal of Public Administration*, 14 (1), 522-536.
- Putri, Y. E., Rosya, N., & Siska, F. (2020). The Meaning of Creative Economy in The Minangkabu Community in The West Sumatra Tourism Destination Area, Indonesia. *GeoJournal of Tourism & Geosites*, 33, 1551-1556.
- Rahmasari, L. (2011). The Influence of Supply Chain Management on Company Performance and Competitive Advantage (Case Study on Creative Industries in Central Java Province), *INFORMATiKA Scientific Magazine*, 2 (3).
- Rahmat, D. (2017). *Analisis Proses City Branding “Taste of Padang” dalam Memasarkan Pariwisata Sumatera Barat*. Jakarta : Universitas Bakrie.
- Rahmah M, Jamal A, Seftarita C. 2020. Mapping of Superior Creative Industry Potentials (Case Study of the Creative Industries of Handicraft Subsector in the East Aceh District), *East African Scholars J Econ Bus Manag*, 3 (6), 572-579.
- Rajagukguk, W. (2018). Inovasi ,Modal Manusia, dan Ekonomi Kreatif: Determinan Kebangkitan Ekonomi Studi Kasus Negara Berkembang. Paper presented at *Conference: 4th Economics & Business Research Festival Business Dynamics Toward Competitive Economic Region of ASEAN*, (June).
- Regional Development Planning Agency of Tasikmalaya Regency (2012). *Regional Spatial Plan for Tasikmalaya Regency 2011 – 2031*. Tasikmalaya : Bappeda of Tasikmalaya Regency.

- Richards, G. (2020). Designing creative places: The role of creative tourism. *Annals of tourism research*, 85, 102922. <https://doi.org/10.1016/j.annals.2020.102922>.
- Romano, A. (2021). The shifting geographies of digital intermediation: the effects of the COVID-19 pandemic on short-term rentals in Italian cities. *Digital Geography and Society*, 2, 100019. <https://doi.org/10.1016/j.diggeo.2021.100019>.
- Romarina R. (2016). Economic Resilience in the Creative Industry in Facing Globalization in the Context of National Resilience. *Journal of Social Sciences*, 15 (1), 35-52.
- Romdonny, J., & Maulany, S. (2020). Contribution of Social Media in Increasing Marketing of Creative Economy Product. In *Proceedings of the 1st International Conference on Accounting, Management and Entrepreneurship (ICAMER 2019)* (pp. 87-90).
- Rusdi, F., & Genep, S. (2018). Analysis of Creative Industries in Utilizing City Identity Through New Media. *Communication Journal*, 10 (1), 95 – 102.
- Sawyer, R. K. (2021). The iterative and improvisational nature of the creative process. *Journal of Creativity*, 31, 100002. <https://doi.org/10.1016/j.yjoc.2021.100002>.
- Schmidt, S., Schreiber, D., Bohnenberger, M. C., & Pinheiro, C. M. P. (2018). Strategic design in small creative industry firms. *Creative Industries Journal*, 11(3), 306-321. <https://doi.org/10.1080/17510694.2018.1526606>.
- Shafi, M., Sarker, M. N. I., & Junrong, L. (2019). Social network of small creative firms and its effects on innovation in developing countries. *SAGE Open*, 9(4), 2158244019898248. <https://doi.org/10.1177/2158244019898248>.
- Shehade, M., & Stylianou-Lambert, T. (2020). Revisiting Authenticity in the Age of the Digital Transformation of Cultural Tourism. In *Springer Proceedings in Business and Economics* (pp. 3–16). Limassol, Cyprus: Springer Nature. https://doi.org/10.1007/978-3-030-36342-0_1.
- Takey, S. M., & Carvalho, M. M. de. (2015). Competency mapping in project management: An action research study in an engineering company. *International Journal of Project Management*, 33(4), 784–796. <https://doi.org/10.1016/j.ijproman.2014.10.013>.
- Tao, J., Ho, C. Y., Luo, S., & Sheng, Y. (2019). Agglomeration economies in creative industries. *Regional Science and Urban Economics*, 77, 141-154. <https://doi.org/10.1016/j.regsciurbeco.2019.04.002>.
- Tasikmalaya Regency Central Bureau of Statistics (2021). *Rajapolah District in Figures 2021*. Tasikmalaya : BPS.
- Tuitjer, L., & Dirksmeier, P. (2021). Social media and perceived climate change efficacy: A European comparison. *Digital Geography and Society*, 2, 100018. <https://doi.org/10.1016/j.diggeo.2021.100018>.

- Wondirad, A., Bogale, D., & Li, Y. (2021). Practices and challenges of developing handicrafts as a core tourism product in Chenchu and Konso, southern Ethiopia. *International Journal of Cultural Policy*, 1-21. <https://doi.org/10.1080/10286632.2021.1938560>.
- Wu, Y., Wei, Y. D., Li, H., & Liu, M. (2022). Amenity, firm agglomeration, and local creativity of producer services in Shanghai. *Cities*, 120, 103421. <https://doi.org/10.1016/j.cities.2021.103421>.
- Yang, Y., Shafi, M., Song, X., & Yang, R. (2018). Preservation of cultural heritage embodied in traditional crafts in the developing countries. A case study of Pakistani handicraft industry. *Sustainability*, 10(5), 1336. <https://doi.org/10.3390/su10051336>.
- Yulaikhah Y., Pramumijoyo, S., & Widjajanti, N. (2019). The effect of baseline component correlation on the design of GNSS network configuration for sermo reservoir deformation monitoring. *Indonesian Journal of Geography*, 51(2), 199–206.
- Yun, J. J., Zhao, X., Yigitcanlar, T., Lee, D., & Ahn, H. (2018). Architectural design and open innovation symbiosis: Insights from research campuses, manufacturing systems, and innovation districts. *Sustainability*, 10(12), 4495. <https://doi.org/10.3390/su10124495>.
- Yunianto, C., & Absori, H. (2021). Creative Industry Development Policy in the Special Region of Yogyakarta Province, Indonesia. *Journal of Hunan University Natural Sciences*, 48(4).
- Zhan, X., Walker, S., Hernandez-Pardo, R., & Evans, M. (2017). Craft and sustainability: Potential for design intervention in crafts in the Yangtze River Delta, China. *The Design Journal*, 20(sup1), S2919-S2934. <https://doi.org/10.1080/14606925.2017.1352802>.
- Zhan, X., & Walker, S. (2018). Value direction: Moving crafts toward sustainability in the Yangtze River Delta, China. *Sustainability*, 10(4), 1252. <https://doi.org/10.3390/su10041252>.
- Zhang, X., Li, Y., Lin, J., & Ye, Y. (2021). The Construction of Placeness in Traditional Handicraft Heritage Sites: A Case Study of Suzhou Embroidery. *Sustainability*, 13(16), 9176. <https://doi.org/10.3390/su13169176>.
- Zul, F., & Koster, S. (2017). Creative Industries and Regional Productivity Growth in the Developing Economy: Evidence from Indonesia. *Journal of Urban and Regional Policy*, 48 (4), 805 – 830.