

Implementation of Management Information Systems in Monitoring Creative Economic Development

Management
Information Systems in
Monitoring Creative
Economic Development

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ABSTRACT

The Central Halmahera Regency Government has established a Management Information System to enhance service provision across various sectors. A primary focus is the creative economy, which is rapidly evolving alongside the designation of this region as a national strategic industrial area. The development of the creative economy in Central Halmahera emphasizes enhancing competitiveness, improving the capacity of human resources for creative economy stakeholders, strengthening digital-based creative enterprises, and promoting comprehensive digital transformation. This study aims to assess the implementation of the management information system in monitoring the creative economy's development and to identify the challenges encountered during this implementation. Employing a descriptive qualitative methodology, data collection involved direct interviews, observations, and documentation studies to gather both primary and secondary data. The findings indicate that the implementation of the management information system in Central Halmahera is suboptimal, primarily due to insufficient telecommunications infrastructure support at the village level and a lack of digital literacy among stakeholders. Although the relevant Regional Apparatus Organizations have established websites as digital platforms for monitoring the creative economy, systematic and integrated monitoring based on information technology has yet to be achieved. There is a pressing need to enhance the monitoring of the creative economy by developing a digital-based monitoring system. The regional government must devise an appropriate scheme and framework to create an integrated Management Information System that streamlines the collection of levies, thereby enabling this sector to contribute to the enhancement of regional financial capacity through the optimization of Regional Original Income.

Keywords: Creative Economy, Digital Transformation, Increasing Competitiveness, Development

ABSTRAK

Pemerintah Kabupaten Halmahera Tengah telah membangun Sistem Informasi Manajemen untuk meningkatkan layanan di berbagai sektor. Fokus utamanya adalah ekonomi kreatif yang tengah berkembang pesat seiring dengan ditetapkannya daerah ini sebagai kawasan industri strategis nasional. Pengembangan ekonomi kreatif di Halmahera Tengah menitikberatkan pada peningkatan daya saing, peningkatan kapasitas sumber daya manusia pelaku ekonomi kreatif, penguatan usaha kreatif berbasis digital, dan mendorong transformasi digital secara menyeluruh. Penelitian ini bertujuan untuk mengkaji penerapan sistem informasi manajemen dalam pemantauan pengembangan ekonomi kreatif dan mengidentifikasi tantangan yang dihadapi selama penerapannya. Dengan menggunakan metodologi kualitatif deskriptif, pengumpulan data dilakukan melalui wawancara langsung, observasi, dan studi dokumentasi untuk memperoleh data primer dan sekunder. Hasil penelitian menunjukkan bahwa penerapan sistem informasi manajemen

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di Halmahera Tengah belum optimal, terutama karena dukungan infrastruktur telekomunikasi di tingkat desa yang belum memadai dan kurangnya literasi digital di kalangan pelaku ekonomi kreatif. Meskipun Organisasi Perangkat Daerah terkait telah membangun situs web sebagai platform digital untuk pemantauan ekonomi kreatif, namun pemantauan yang sistematis dan terpadu berbasis teknologi informasi belum terlaksana. Perlu adanya peningkatan pengawasan terhadap ekonomi kreatif melalui pengembangan sistem pengawasan berbasis digital. Pemerintah daerah perlu menyusun skema dan kerangka kerja yang tepat untuk menciptakan Sistem Informasi Manajemen terpadu yang dapat mengefisienkan pemungutan retribusi, sehingga sektor ini dapat memberikan kontribusi terhadap peningkatan kapasitas keuangan daerah melalui optimalisasi Pendapatan Asli Daerah.

Kata kunci: Ekonomi Kreatif, Transformasi Digital, Peningkatan Daya Saing, Perkembangan

INTRODUCTION

The transformation of the management information system in government implementation is a priority program that continues to be developed to improve the delivery of public services. This transformation emphasizes the use of Information and Communication Technology (ICT) to support government operations and provide services to businesses and the community (Purwaningsih & Sunaningsih, 2021; Kõ et al., 2022; Batara et al., 2024). By leveraging ICT, the system aims to operate transparently, effectively, efficiently, and measurably, ensuring better governance and service delivery for all stakeholders. The implementation of a technology-driven government management information system to enhance public services presents opportunities for regions to innovate by leveraging advancements in information technology. This facilitates the execution of government functions, encompassing the planning, implementation, organization, and monitoring phases of development programs, while also streamlining service processes and augmenting regional revenue (Li, 2020; Wailan'An & Pandia, 2023; Anggraini & Putri, 2024). The application of information technology may involve mutually beneficial activities related to data management, information management, and management systems. Digital transformation, as a manifestation of the contemporary management information system, is a critical variable in fostering economic growth. Accelerating digital transformation in the post-pandemic era represents a strategic initiative for economic recovery. In 2024, digital transformation is projected to contribute an additional 1 percent to GDP annually and create 2.5 million jobs (Anggraeni, 2020; Kartika et al., 2021; Marlina et al., 2023).

Central Halmahera is a district in North Maluku Province that has been identified as one of the national strategic industrial zones in accordance with Presidential Regulation Number 18 of 2020 regarding the National Medium-Term Development Plan (RPJMN) 2020-2024. This determination significantly influences the economic growth of Central Halmahera Regency. According to data from the Central Statistics Agency (BPS), in 2022, Central Halmahera's economic growth reached 102.37 percent, marking the highest rate in Indonesia's governmental history. The economic expansion resulting from the establishment of the processing industrial area positively affects the growth of the creative economy sector in Central Halmahera Regency. Concurrently, Central Halmahera has also emerged as a region experiencing rapid population growth. In the year In 2022, the population of Central Halmahera was 59.1 thousand individuals, experiencing a substantial increase in 2023 to 96,977 thousand individuals. The robust economic growth, coupled with population expansion, presents both challenges and opportunities for the regional market, particularly in the realm of the creative economy. The processing industry sector, which includes the creative economy, has significantly contributed to the rise in Central Halmahera's Gross Regional Domestic Product (GRDP).

To promote the creative economy, the Central Halmahera Government has initiated the development of creative villages, emphasizing the importance of preserving local cultural heritage and traditions. Through this initiative, it is hoped that the potential of

the creative economy—such as art, tradition, and local wisdom—can continue to thrive. This effort aims not only to safeguard cultural heritage but also to strengthen regional identity and culture. Additionally, it is expected to have a positive impact on the local economy (Baierle et al., 2022; Lewandowska et al., 2023). Creative villages serve not only as spaces for fostering creativity but also as strongholds for maintaining the authenticity of regional culture. The rich cultural potential and local wisdom in Central Halmahera Regency are the basis for developing creative villages. This Regent Regulation encourages the utilization of this potential to empower the community's creative economy. In other words, culture and local wisdom are not only seen as cultural assets, but also as economic resources that can be developed. For example, through the development of handicraft products based on local culture or organizing cultural activities that attract tourists. Thus, the community can improve their welfare through the utilization of their cultural potential (Klein & Spychalska-Wojtkiewicz, 2020; Sui et al., 2024).

The development of the creative industry in this area is a very positive thing in an effort to strengthen the economic fundamentals of the community amidst the development of industrialization and mining downstreaming. To monitor the development of the creative economy such as products, business actors, capital, institutions and contributions to regional finances through Regional Original Income, it is necessary to apply an integrated management information system in monitoring the development of the creative economy (Gustafsson & Lazzaro, 2021; Atmoko & Khairudin, 2022; Amankwah-Amoah et al., 2024). The implementation of an information system does not have to use a computer in its activities. But in practice, it is impossible for a very complex information system to run well without a computer. With the integration between its subsystems, the information system will be able to provide quality, precise, fast and accurate information according to the management that needs it. The information system has components in the form of subsystems which are smaller elements that form the information system, for example the input, process, output sections. Without these three, the information system cannot run properly (Gerlitz & Prause, 2021).

The Regional Government through the Regional Apparatus Organization consisting of Agencies, Services, and Sections has developed several digital platforms including the Creative Economy Information and Monitoring System (SIMORE) developed by the Tourism and Creative Economy Service, the Budget Realization Evaluation Information System (SIERA) developed by the Regional Development Planning, Research and Innovation Agency, the Market Price Monitoring Information System developed by the Industry and Trade Service and SieRNA developed by the Cooperatives and SMEs Service. The problem that arises is to what extent the application and utilization of this management information system in monitoring the development of the creative economy in the region. How is the application of the management information system in monitoring the development of the creative economy in Central Halmahera and what are the obstacles in the application of the management information system in monitoring the development of the creative economy in Central Halmahera. The purpose of this study is to examine the application of the management information system in monitoring the development of the creative economy and identify the challenges faced during its implementation. The Management Information System (ISIM) referred to in this study is the utilization of Information and Communication Technology (ICT) or digital platforms developed by the Regional Government as an entity that must innovate in developing digital-based service devices.

METHODS

This research is descriptive qualitative research. It is intended to explore or clarify a symptom, phenomenon or existing social reality. where based on its characteristics, descriptive research attempts to describe several variables relating to the problem and unit being studied where this research does not question the relationship between existing variables because it is not intended to draw generalizations that cause a symptom, phenomenon or social reality that occurs. This type of descriptive qualitative research was

chosen because it was considered more appropriate to explore deeper meaning and understanding of the process of implementing a management information system in monitoring the development of the creative economy in Central Halmahera Regency. This method allows researchers to obtain rich and descriptive data, so that it can provide a comprehensive picture of the phenomenon being studied. Determination of informants in this study used purposive sampling technique. This purposive sampling technique is a technique for taking informants or sources with a specific purpose in accordance with the research theme because the person is considered to have the information needed for the research. In this case, the researcher chooses informants who are considered to know the problems to be studied and can provide information that can be developed to obtain data. The research instruments needed include interview guidelines to collect data from informants related to the implementation of the management information system in monitoring the development of the creative economy in Central Halmahera Regency. The documents to be analyzed include financial reports, government policies related to the creative economy, and relevant previous research results. Document analysis produces a comprehensive picture of the condition of the creative economy in Central Halmahera Regency. By combining data obtained directly from the field (primary data) and previously existing data (secondary data).

RESULTS

Central Halmahera as one of the regions in North Maluku province with very good economic growth. Central Halmahera was formed based on Law number 6 of 1990 concerning the Establishment of Central Halmahera DATI II Regency and was subsequently expanded into Central Halmahera Regency, East Halmahera Regency and Tidore Islands City based on Law number 1 of 2003. Central Halmahera Regency is administratively bordered by East Halmahera Regency, South Halmahera Regency, Tidore Islands City and Raja Ampat Regency in West Papua Province. In implementing government and public services, Central Halmahera Regency has 10 sub-districts and 61 definitive villages and 11 preparatory villages with a total population of more than 96 thousand people. Based on data from the Central Statistics Agency (BPS), the area of Central Halmahera Regency is recorded as 8,381.48 km² consisting of land 2,276.86 km² (27%) and sea 6,104.65 km² (73%). As one of the expansion areas, Central Halmahera still has limitations in providing infrastructure, including the provision of inadequate telecommunications networks. Since 2019, the Regional Government has been intensively developing basic infrastructure including telecommunications facilities to facilitate access to information and communication down to the village level (Rezaei, 2013).

Central Halmahera is an area rich in natural resource potential, so it is currently the largest contributor to the economic growth of North Maluku. As an area rich in basic industrial materials, this region has been designated by the Government as one of the national strategic industrial areas with a focus on down streaming nickel industry. The very rapid growth of industrial areas should have a significant impact on the development of other sectors to strengthen the fundamentals of the regional economy so that the people in this area can grow economically independently and not solely depend on industrialization (Palazuelos et al., 2018). In addition to the independence of the community from an economic aspect, the fiscal capacity of the Central Halmahera Regency has also experienced a significant increase where fiscal capacity is defined as the financial capacity of the region reflected through regional income and receipt of certain regional financing minus income whose use has been determined, certain expenditures and regional financing expenditures certain.

Distribution of Percentage of Gross Regional Domestic Product (GRDP) of Central Halmahera Regency in 2022 and 2023, there are three sectors that provide the largest contribution to the GRDP of Central Halmahera Regency, namely the Manufacturing Industry: This sector consistently dominates the contribution to the GRDP of Central Halmahera Regency, both in 2022 and 2023. This shows that the manufacturing industry

sector is the backbone of the regional economy and Mining and Quarrying: This sector also makes a very significant contribution to the GRDP of Central Halmahera Regency.

Table 1. Distribution of Central Halmahera GRDP Based on Business Field

Industrial Bussines Field	2019	2020	2021	2022*	2023*
Agriculture, Forestry and Fishes	21.93	16.55	5.79	2.71	2.11
Mining and Quarryng	17.28	16.41	24.25	29.07	32.23
Processing Industry	6.10	25.58	54.68	60.04	58.79
Electricity and Gass Procurement	0.03	0.02	0.01	0.01	0.01
Water Procurement, Waste Management, Waste and Recycling	0.02	0.02	0.01	0.00	0.00
Construction	12.98	10.27	4.00	2.21	1.67
Wholesale and retail trade of car and motorcycle repairs	14.62	10.84	4.02	2.28	2.15
Transportation and Warehousing	1.56	1.16	0.45	0.31	0.29
Provision of Accomodation and Food and Beverages	0.21	0.16	0.07	0.04	0.03
Information and Communication	0.65	1.29	0.54	0.28	0.23
Financial Services and Insurance	2.15	1.64	0.65	0.34	0.27
Real Estate	0.03	0.02	0.01	0.01	0.01
Corporate Services	0.07	0.05	0.02	0.01	0.01
Government Administration, Defense and Mandatory Social Security	17.57	13.10	4.50	2.22	1.79

The results of the Distribution of Central Halmahera GRDP Based on Business Field test show that the manufacturing sector in Central Halmahera Regency experienced quite significant fluctuations in its contribution to GRDP from 2019 to 2023. In 2019, the manufacturing industry's contribution to GRDP was still relatively small, at 6.10%. This shows that this sector was not yet the main driver of the regional economy at that time. There was a very significant increase in 2020, where the manufacturing industry's contribution jumped to 25.58%. This drastic increase indicates that industrial activity is increasing rapidly, most likely driven by certain factors such as increased demand or new investment. The increasing trend continued in 2021 and 2022, with the manufacturing industry's contribution reaching 54.68% and 60.04% respectively. This shows that the manufacturing industry sector has become the backbone of the economy of Central Halmahera Regency. This is in line with the Central Government's policy of making one of the mining industrial areas a national strategic project under the management of PT. IWIP. Although still a major contributor, there was a slight decline in 2023 with a contribution of 58.79%. This decline could be caused by various factors, such as commodity price fluctuations, changes in government policies, or global economic conditions. Please note that data for 2022 and 2023 are marked with an asterisk (*), which may indicate that the data is still preliminary or an estimate.

In general, the data above shows that the processing industry in Central Halmahera Regency has experienced very rapid growth in recent years, and has become a very important sector for the regional economy. This significant increase is likely driven by the abundant natural resource potential in the area, especially minerals such as nickel which are widely used in the battery and steel industries. On the other hand, the BPS Halteng data in the table above does not specifically describe the contribution of the creative economy in the processing industry sector. The available data only shows the percentage of the overall contribution of the processing industry sector to the GRDP of Central Halmahera. The classification of industries in the table tends to follow a more general standard classification (such as KBLI), which may not explicitly separate the creative economy subsector within the processing industry (Gyamera et al, 2023).

Central Halmahera has various types of creative economy sub-sectors that are run individually or in groups. In general, several types of business activities that have been running can be categorized as production activities for Abon Ika, Fufu Fish, Culinary, Various Cakes, Typical Central Halmahera Souvenirs, Sago Processing, and Mat Weaving. Creative economy actors are spread across various regions such as Weda, Central Weda, North Weda, and North Patani Districts. The development of the creative

economy sector is regulated in the Central Halmahera Regent Regulation Number 54 of 2022 concerning the Development of Creative Villages which explains the scope of Creative Village development including 13 types of scopes but does not explicitly mention the collection of creative economy actor levies within the framework of creative villages (Moridu, 2021). This Regent Regulation focuses more on the formation, development, and management of creative villages in general, including types of creative villages, criteria, institutions, and financing. From the 13 scopes of creative village development, several important points can be formulated including: Management, development, and restrictions on creative village businesses: This point discusses the management of creative village businesses, but does not specifically discuss levies or levies. Rights, obligations, and prohibitions: This point is more about regulating the rights and obligations of creative village actors, as well as the applicable limitations. There is no direct indication regarding the obligation to pay retribution. Financing: This point discusses sources of financing for creative village development, but does not specifically mention retribution as one of the sources.

The creative industry faces uncertain fluctuations that can happen at any time. Like the Covid-19 pandemic a few years ago. The creative economy sector also felt the impact of the Covid-19 pandemic due to the implementation of restrictions on activities in public spaces. So that buying and selling activities have decreased. To face conditions like this, of course, every creative economy actor needs sufficient working capital. So when there is a decline in sales that affects the decline in income, creative economy actors are able to use the capital to survive. Because the quiet sales period is one of the most feared phases by every creative economy actor (Prayitno et al., 2023). For creative economy actors who have sufficient working capital will be able to get through this phase. On the other hand, capital also supports creative economy actors to expand marketing and invest in making new products. Creative economy actors who have capital are certainly able to do this. Marketing and developing new products is one strategy to maintain the sustainability of their business.

The lack of a capital distribution scheme through banking to creative economy actors is inseparable from the background of the creative economy industry itself. If described in depth, the creative economy industry is one of the businesses that has several aspects that make it difficult to get capital loans from banks (Maya et al., 2022). Creative economy is one of the business lines that has various risks in terms of capital provided by banks. The uncertain business climate coupled with the scale of the business that is still home-based is what makes this business sector enter into a high-risk business. The problem of capital in supporting the creative economy activities above is also a long-term challenge in the development of the creative economy. Especially in Central Halmahera Regency which is now starting to put hope in the development of the creative economy. The local government has provided assistance to 220 creative economy actors to support their respective creative economy businesses. Each creative economy actor receives IDR 3 million – IDR 3.5 million as capital in running their business. The amount received is indeed very small if used to support the development of each sub-sector of the creative economy that is developing in Central Halmahera. Especially the culinary, craft, fashion, souvenir, and weaving sub-sectors. However, this assistance from the local government is the answer amidst the lack of capital injection from banks. The presence of a creative economy actor assistance fund program is an alternative to continue to support the development of the creative economy from the capital side carried out by the regional government.

The development of the creative economy in Central Halmahera still faces major obstacles in terms of capital. Although the local government has distributed capital assistance to 220 creative economy actors, this does not guarantee the sustainability of the development of the creative economy in Central Halmahera. Because not all creative economy actors are able to use the funds to survive and develop their businesses. Therefore, there are three obstacles that creative economy actors will continue to face in the future in accessing capital, namely assets, high-risk business categories, and types of

businesses that are small-scale (Dewantoro, 2022). These three obstacles need to be discussed in depth by involving the parties. Especially regional heads and banking actors in the Central Halmahera region. Without these efforts, efforts to open access to capital through banking will be difficult. Because banks in distributing capital to third parties are required to obtain certainty guarantee. One of them relates to asset collateral which is used as the basis for providing credit.

The local government's efforts in developing the creative economy sector by implementing several trainings are a positive step. Creative economy actors also need training as a medium to renew and improve their abilities. Not only that, through training, creative economy actors can learn about various developments and market trends as well as creative economy marketing. Thus, training provides a phase of renewal for all creative economy actors who are involved. Local governments can also support the development of local marketplaces specifically designed to market Creative Economy products, with digital payment features, customer reviews, and sales tracking. This system can help small businesses overcome marketing obstacles and reach a wider range of consumers. Along with the implementation of training carried out by the Regional Apparatus Organization related to involving creative economy craftsmen in the home sub-sector and tourism service business actors in 2024, it is also necessary to consider several aspects. There are five aspects that are challenges as well as problems that will emerge in the future in the process of developing the Creative Economy in Halteng. These five aspects need to be understood together between Creative Economy actors and the local government. The urgency of implementing training, certainty and sustainability of training programs in the next five years, access to local and national Creative Economy networks and markets, availability of raw materials used by Creative Economy actors, and the support capacity of several training facilities for Creative Economy actors in this regency (Purnomo et al., 2024).

Training activities for creative economy actors must be designed carefully and be able to answer their needs in the region. Each training program should not only be implemented to fulfill the obligations of the regional government in assisting creative economy actors. However, the most important thing that must be considered is that each training activity must have urgency and the training material is in line with the needs of the training participants. Training activities must be relevant and provide knowledge to participants who have so far been left behind in terms of technology for creative economy actors in the craft sub-sector. Then the aspect of market development trends for creative economy actors in the food, souvenir, and weaving sub-sectors (Rahayu et al., 2022). So that in the training they are able to add information to strengthen their respective business bases. Not only that, another aspect that is also important is that after participating in the training they have new knowledge about the use of renewable technology in the creative economy production process. Such as the use of technology in making crafts and weaving. Because so far there are still many craftsmen who use traditional or manual techniques in making various types of crafts. Conditions like this, if faced with the demands of market needs for these products, the craftsmen are unable to meet them.

To establish and foster a sustainable creative economy industry ecosystem in the region, stakeholders must prioritize the continuity of mentoring and training programs. A common issue faced by creative economy actors is the lack of consistent training initiatives. Often, these programs are implemented only once a year within a single budget cycle. This inconsistency negatively impacts efforts to develop the creative economy, especially in light of the increasing competition among creative economy actors. Additionally, the introduction of new products, evolving market trends, and the need to adapt to ever-changing promotional strategies present ongoing challenges that require regular updates and support. These challenges must be addressed not only by creative economy actors but also by stakeholders, ensuring that the products created have added value and a strong competitive edge. By maintaining continuous training and mentoring programs, local products will be better equipped to compete and attract potential

consumers in both local and national markets. This approach will enhance the region's creative economy and contribute to its long-term sustainability.

To ensure that capacity-building programs effectively meet the needs of creative economy actors, it is crucial to address common challenges in creative economy development. This is especially true in guaranteeing the availability and accessibility of such programs for all creative economy actors in Halteng. One significant obstacle to the growth of the creative economy is the lack of sustainable training programs. Many creative economy actors, whether or not they have received training, struggle to sustain their efforts and produce diverse products. The current climate of the creative economy industry is marked by increasingly fierce competition among its actors. If the local government neglects to provide consistent mentoring and capacity-building programs, the survival of creative economy actors will be at risk. Furthermore, the influx of various craft and food products from abroad presents a significant threat. The government's open policy on imports has intensified competition, forcing local creative economy actors to go head-to-head with foreign products. When it comes to quality and price—two critical factors—foreign products often dominate by offering lower prices, putting additional pressure on domestic producers. This unhealthy competition requires urgent attention, particularly from local governments. Regional creative economy actors cannot be left to navigate these challenges alone. A collective effort is needed to support and mentor creative economy actors through continuous training programs. By enhancing their skills and capabilities, these actors will be better equipped to create products that are competitive in both price and quality. Such efforts will not only strengthen the local creative economy but also ensure its resilience in the face of global competition.

The craft sub-sector is one of the leading products originating from Halteng Regency. The raw materials used to make various woven products and others are still very abundant. One aspect that must be considered is ensuring that the raw materials in the area are of good quality, so that they can produce good and quality craft products. In addition, the use of raw materials in the creative economy industry must pay attention to the sustainability aspect. Do not let the use of raw materials be carried out excessively so that it disrupts the ecosystem and sustainability (Sulistyawati et al., 2024). If this condition occurs, the supply chain of the creative economy development process in the region can be disrupted. Thus opening up space for dependence on raw materials from other regions. Although the availability of raw materials is still abundant, seeing conditions like the above, the local government together with creative economy actors need to sit together to discuss this. Especially preparing strategic steps for the use of local raw materials for the development of the creative economy in Halteng, so that the use of raw materials runs out quickly and disrupts the production of various crafts. In addition, strategic steps are one of the foundations in ensuring the sustainability of the use of raw materials in the region. And the most important thing is the birth of a program for cultivating raw materials from various craft products. This program is a preventive measure and ensures the sustainability of the availability of local raw materials to support the development of the creative economy industry in the future.

Efforts to ensure training programs that can run sustainably are one of the main things in the development of the creative economy in the region. If this can be ensured by stakeholders, then one of the obstacles that needs to be a shared concern is related to market access for various creative economy products in Halteng. Creative economy actors who have received training then return to their respective production bases will produce various types of creative economy products. From the various creative economy products, it is necessary to monitor them to enter the local and national markets. The regional government as the main actor in the development of the creative economy in the region has the greatest role and power to help creative economy actors market their products. Because so far what has happened is that creative economy actors still market their own production. There has been no joint effort to collaborate in marketing creative economy products in the region. Even though the government regions have many instruments to encourage and open market access for local creative economy products to the global

market. Local governments can create a special agenda or calendar related to the promotion and marketing of creative economy products. This calendar can be done by involving relevant Regional Apparatus Organizations at the local level through various celebrations of national holidays. Every time the local government celebrates a national holiday, it is mandatory to provide space for creative economy actors to market their products. If this is implemented sustainably, it will have a very positive impact on all creative economy actors involved.

In addition to marketing and sales efforts of various creative economy products in Halteng at the local level, the local government also has the opportunity to market these products at the North Maluku provincial level. By using the same scheme, every potential creative economy actor is given facilities to market their products. Not only that, efforts to market creative economy products can also be facilitated by the local government to the national level. Every year the central government and creative economy associations routinely hold creative economy exhibitions in various major cities, one of which is in Jakarta. By involving creative economy actors in this national exhibition, it can provide them with the opportunity to gain larger networks and consumers. Although marketing efforts like this require a large budget, they have a positive impact in maintaining the sustainability and existence of creative economy actors in the region. Because after participating in the exhibition they have gained a network of consumers who will become potential buyers in the future. With consistent marketing efforts continuously to these potential consumers, it will form an ecosystem of producers and consumers of creative economy (Cindy et al., 2023).

Thus it can be described that the development of the creative economy in Halteng in the future faces several obstacles and challenges that are quite heavy if not anticipated early by the local government. To produce various superior creative economy products from Halteng, of course the local government through the relevant Regional Apparatus Organization must analyze the obstacles above wisely and comprehensively. If we want the creative economy sector in Halteng to continue to grow and develop sustainably, then the various obstacles and challenges above need to be included in the strategic issues of the process of formulating various policies related to the development of the creative economy (Desi & Rahmazaniati, 2022). So that the programs in the following year are able to reflect and answer the needs of creative economy actors. Don't let the programs created by the relevant Regional Government Organizations not answer the problems and challenges faced in developing creative economy. If so, efforts to develop the creative economy in Central Halmahera will run in place and experience a slowdown.

The high economic growth rate is certainly good news in the marketing process of various creative economy products. Because positive regional economic growth is influenced by the high purchasing power of the community. This condition is an inseparable part of the enthusiasm of the local government in developing the creative economy sector. The process of developing the creative economy must be accompanied by efforts to increase the capacity of creative economy actors. So that the various products produced are able to be competitive after being marketed. In order for the wider community to know and understand the development of the creative economy, intensive promotion is needed through various media, both conventional and digital. The information conveyed must be up-to-date, accurate, and easily accessible. The implementation of a management information system in monitoring the development of the creative economy in Central Halmahera has been initiated by the Regional Government Organization by creating a website as a monitoring medium. Through this media in the form of a website, it is expected to be able to accommodate various information and types of creative economy sub-sectors in Central Halmahera. As previously explained, there are four Regional Government Organizations that are developing a Management Information System (digital platform) in order to conduct data collection, planning, implementation, and monitoring of the development of the creative economy in Central Halmahera. Data from Regional Government Organizations that are developing a management information system (digital platform).

Table 2. Regional Government Organization Management Information Data System (Digital Platform)

Digital Platform Name	Developer/user	Information
Monitoring system of Creative Economic (SIMORE)	Department of Tourism and Creative Econom	Under maintenance
SiRENA Mkumel'e	Dapertment of Cooperatives and small and medium enterprises	Not yet utilized optimally
SiERA (Evaluation and Monitoring Information System)	Regional Development Planing, Research and Innovation Departmen	Not yet utilized optimally
JAGA PASAR (Monitoring information sistem of market prices)	Department of Industry and Trade of Central Halmahera Regency	Stopped operations due to operational constrain

The implementation of the functions of this website has not been running well. This can be seen from the information on the website that has not been updated. Not only that, several creative economy products that are being developed in Central Halmahera also appear not to have been displayed on this digital platform. This shows that there is one problem that arises when the local government creates a website to accommodate and monitor the development of the creative economy in Central Halmahera. The implementation of a quality management information system is very important for regional apparatus leaders as technical persons responsible for monitoring the development of the creative economy in making decisions. This quality information is certainly formed from a well-designed information system. Rusdiana et al. (2014) that management information systems generally refer to a collection of information systems that provide information to managers or decision makers in companies or business organizations about internal and external events. A good management information system is a management information system that is able to balance the costs and benefits to be obtained.

The use of appropriate information systems supported by the expertise of the personnel operating them can improve the performance of the region or organization concerned. A good information system will present good data and information to support the management system from the planning stage, implementation to the monitoring and evaluation stage. As expressed by Frisdayanti (2019), the Management Information System is an integrated system that aims to present relevant information to support the planning, implementation, organization, and supervision of organizational activities. In other words, the Management Information System acts as a tool in effective decision making. However, until now its implementation is still limited to several regional devices while there are still several agencies that have not optimally implemented this information technology as conveyed by Yunus Achmad Plt. Head of BAPPERIDA Central Halmahera (interview on 11/28/2024) that the use of management information systems in monitoring is still not optimal, for example on the SIERA digital platform owned by BAPPERIDA, it has not been optimally utilized because there are still obstacles to operating the system. The results of the questionnaire data processing distributed through the google form link also show that the implementation of the management information system in monitoring the development of the creative economy in Central Halmahera Regency has not run optimally. On average, the Regional Apparatus Organization has developed its system but has not been implemented properly.

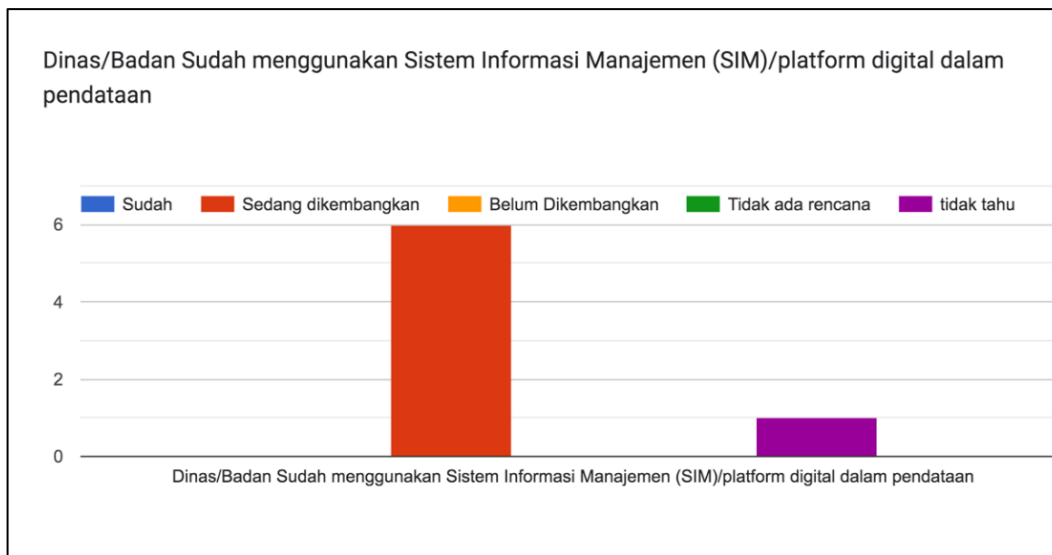


Figure 1. Regional Government Organization Management Information Data System (Digital Platform)

The implementation of the management information system in monitoring the development of the creative economy in Central Halmahera Regency has not been running optimally due to several obstacles, including limited information technology infrastructure and minimal digital literacy. The limited telecommunications infrastructure is the main obstacle in the implementation of the management information system in monitoring the development of the creative economy in Central Halmahera Regency. Central Halmahera is one of the areas that has only just developed since it was divided in 2003. This causes the availability of basic infrastructure to be still minimal, especially in villages. The limited infrastructure is certainly alone affect regional economic growth. Since 2018, the Regional Government has begun to prioritize the development of basic infrastructure to remote villages, including providing affordable telecommunications network infrastructure (Purnomo et al., 2024).

Another problem felt by creative economy actors in the region is the existence of several supporting facilities in the development of the creative economy. Supporting facilities are rarely considered by the government in efforts to develop the creative economy industry. Access roads, internet networks, and electricity are basic infrastructure that support the development process of the creative economy in the region. The existence and availability of several supporting facilities must be considered carefully (Rahayu et al., 2023). Because these facilities support the production process, run product marketing programs using social media, and find out various information related to market development trends in the creative economy sector from time to time. The current reality is that several creative economy actors carry out production activities in rural areas in Patani District (Moridu, 2021). The obstacles felt are unstable internet access to support the online marketing and sales process. Road access to the government center in Weda is also still damaged so that it does not support the distribution process of goods. Access to electricity within 24 hours is also often disrupted. This certainly disrupts the production activities of crafts that use machine tools with electrical energy sources. Because the electricity often goes out for a long time (Dewabrata et al., 2024; Putri & Yuniarta, 2023; Oktarida, 2024).

In addition to the limited telecommunications infrastructure, another factor that is an obstacle in the implementation of this management information system is the low digital literacy of creative economy actors. Generally, creative economy actors are rural communities with low levels of education and lack of understanding and ability in mastering information technology. infrastructure limitations, such as uneven internet access in rural areas of Central Halmahera. The proposed solution is the provision of free

Wi-Fi facilities or hotspots in strategic locations to support digital marketing activities and technology-based training for creative economy actors.

Some creative economy actors do not yet have the ability and knowledge to use digital platforms due to the implementation of digital literacy which is not yet optimal for creative economy actors to use technology effectively. Local governments need to organize IT training, such as e-commerce management, use of social media for marketing, and the basics of graphic design to support branding of creative economy products. All of these obstacles must be strategic issues in designing a master plan for a regional management information system to support the policy of monitoring the development of the creative economy in Central Halmahera. As one of the sectors that has just grown after Covid-19, the creative economy sector is faced with the problem of sustainable training and mentoring and the need for adequate access to capital. These two problems need to be strategic issues in discussing the policy for developing the creative economy in Central Halmahera. These two things can be the main obstacles in efforts to develop the creative economy in the future.

Seeing this condition, it is necessary to prepare human resources and provide training to them in managing the website. So that the initial goal of presenting a monitoring media for the development of the Creative Economy in Central Halmahera can run continuously. The existence of the monitoring media that has been created has a very important position (Purnomo et al., 2024). Especially supporting the availability and updating of Creative Economy actor data along with various products produced. If this monitoring media can function sustainably, it will help the government in developing the Creative Economy in the future. Because Creative Economy actor data from various sub-sectors can be monitored anywhere and anytime if needed to formulate Creative Economy development policies.

In relation to monitoring the development of the creative economy in Central Halmahera, the regional government through each regional apparatus organization that has a similar program in empowering creative economy actors should prepare a monitoring instrument. Monitoring activities can be carried out by each OPD or carried out jointly across OPDs. So that each can synchronize the monitoring results. This certainly facilitates the communication and synergy process if there is anything that are not in accordance with the use of aid funds. So that the parties immediately carry out mitigation and seek various solutions to the problems and obstacles found in the field. There needs to be an integration of the Management Information System between regional devices. The development of a digital platform or Integrated Information System has advantages including a). Reducing data duplication, b) Increasing data accuracy, c) Facilitating collaboration between regional devices, d) Increasing operational efficiency, e) Increasing the quality of public services, f) Increasing public trust, especially creative economy actors.

CONCLUSION

The implementation of the Management Information System (MIS) for monitoring the development of the creative economy in Central Halmahera Regency has been carried out by four related Regional Apparatus Organizations (OPDs). However, its utilization has not been optimal because most digital platforms are still in the development and maintenance stage. This has an impact on the limited data and current information related to the development of the creative economy in the region. Nevertheless, the development of the creative economy in Central Halmahera has shown significant progress, including through the distribution of financial assistance to 220 creative economy actors which are also supported by skills training by related OPDs, especially the Tourism and Creative Economy Office. However, monitoring of creative economy actors has not been carried out continuously, even though a website has been available for this purpose. The main obstacles in implementing MIS include the lack of Information Technology infrastructure, low digital literacy at the OPD and creative economy actor levels, and limited human resource capacity in utilizing information technology. Therefore,

optimizing monitoring through the existing website and implementing direct monitoring are strategic solutions that can be implemented.

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