Economic Transformation of UMKM in East Lombok Regency Through Digital Technology Innovation

Muliani[1], Defel Septian[2], Nukman[3]
Bumigora University[1,2], Institute Technology and Health Aspiration [3]
Email: *muliani@universitasbumigora.ac.id[1]*, *defel@universitasbumigora.ac.id[2]*,
nukman@itka.ac.id[3]

ABSTRACT

This study aiming for explore utilization innovation digital technology against transformation economy Micro, Small, and Medium Enterprises (MSMEs) sector in East Lombok Regency. As entity economy strategic, UMKM in this region Still face fundamental challenges, such as limitations access technology, low digital literacy, as well as Not yet optimal ecosystem supporters. Gap literature identified in the minimum study empirical which focuses on the application of digital technology in context area rural with complexity socio-economic characteristics. This study use approach qualitative explorative with method interview deep to MSME actors and stakeholder local interest. Research results show that digitalization through utilization of e-commerce platforms, social media, and systems digital payments play a role significant in increase business process efficiency, expanding market reach, as well as push growth income. Although thus, its implementation Still faced with limitations infrastructure and inequality digital capabilities between perpetrator business. Novelty from study This lies in the approach contextual to digitalization of MSMEs in the regions rural as well as strategic model formulation based on potential local that can replicate in areas with characteristics similar. Implications from findings This expected can become runway for formulation policy empowerment an inclusive and sustainable digital economy.

Keywords: Economic Transformation, MSMEs, Digital Technology

1. INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) play a role a very strategic role in development economy Indonesian national (Shohibboniawan Wahyudi et al., 2024). This sector proven capable become a driving force people's economy and source main creation field work, with contribution to Product Gross Domestic Product (GDP) reached more from 60% and absorb about 97% of power Work national ((KEMEN-KUKM, 2023) . In the East Lombok Regency area, MSMEs are component main in support activity economy society, especially in the regions rural areas that have not been affordable by investment sector industry scale big. The role of MSMEs is not only limited to aspects economy, but also contributes to stability social, empowerment community local, and preservation culture based on production traditional.

Data from the East Lombok Cooperatives and SMEs Service recorded around 35,331 MSME units at the end of 2023, with an increasing trend every year. However, data from the Indonesian Ministry of Cooperatives and SMEs states that the number of MSMEs in East

Lombok could reach up to 73,000 units, although this data has not been fully verified by the local government. In May 2025, the official database recorded 24,000 registered MSMEs, with the data collection process still ongoing. Around 40% of MSME actors in East Lombok are digitally literate, the highest figure in NTB, but the majority of MSME actors are still over 50 years old and less familiar with digital technology (Rachman, 2024) ..The government continues to encourage digitalization so that MSMEs are more competitive and can access wider markets.

Even though own potential big, UMKM in East Lombok is still face various challenge structural and technical in develop his efforts. Problems the main thing that often found including limited capital, low access to technology and information, limitations in marketing, as well as lack of innovation product. Obstacles the aggravated with condition geographical as well as infrastructure that has not been fully support expansion business and market access broad. In the context of this , adoption digital technology becomes factor important that can disrupt at a time accelerate the process of modernizing MSMEs so that they are able to adapt with demands of the times (Zaini, 2024).

Digital technology has changed fundamentally the way perpetrator business producing, marketing, and interacting with consumers. In the era of digital transformation , the use of digital platforms such as e-commerce, social media , and systems digital payments can increase efficiency MSME operations and expansion coverage the market (Yulistiawan et al., 2024) . With digital technology, MSMEs have opportunity for compete in the global market they be in the area remote. More than that, digitalization allow customer data collection, management more inventory good and the creation of a better business model adaptive. MSMEs that integrate

digital technology to in business process they experience improvement significant productivity and income compared to with MSMEs that are still depend on method conventional.

Thus, digital transformation does not necessarily easy implemented by MSMEs, especially in rural areas such as East Lombok. Obstacles big Still appear in form limitations infrastructure internet network , low digital literacy , limitations training technical , as well as attitude conservative part perpetrator business to change technology (Saragih et al., 2024a). This is because the digital divide between urban and rural areas has the potential widen inequality economy. Some even UMKM actors Not yet know draft digital marketing or not yet understand importance presence business online. This condition show existence gap between potential digital technology as lever growth economy and capability real MSME actors in implementing it.

literature gap is also seen in the lack of research that examines the digital transformation process of MSMEs in general specific to rural areas with complexity different social and economic from area urban. Most of study previous Still focused on digitalization of MSMEs in cities big , while the reality of MSMEs in areas such as East Lombok is not yet lots depicted in a way comprehensive in study scientific (Babys et al., 2024) . In fact, strengthening MSMEs in the regions become very important in context equalization development and reduction gap inter regional.

With various existing challenges and opportunities, transformation UMKM economy through innovation digital technology becomes urgent needs. Digitalization is not Again become choice, but rather inevitability in facing the era of disruption and global competition. MSMEs as bone back economy area need facilitated and encouraged For No only capable survive, but also grow in a way sustainable with

support appropriate digital technology with context local.

The novelty of this study lies in its approach that highlights the economic transformation of MSMEs in rural areas by prioritizing the role of digital technology innovation. This study not only raises the aspect of technology adoption, but also links the dynamics of social, cultural, and infrastructure conditions that influence the success of MSME digitalization in the region. This perspective is important for building a more complete understanding of how MSMEs in East Lombok respond to digital change, and how intervention and support models can be designed to better suit real needs in the field. Thus, the results of this study are expected to be able to add to the literature on the local-based digital economy, and encourage the development of more effective strategies in accelerating MSME growth.

2. LITERATURE REVIEW

Study on digital transformation of MSMEs continues develop along increasing need will digitalization in the industrial era 4.0 and 5.0. Research (Zikri, 2024) focused on transformation digital economy as a strategy for improvement productivity and power UMKM competitiveness . Research This use approach descriptive-qualitative with analysis literature and secondary data national. Object his study is an MSME in general national without focusing on a particular area. Zikri emphasized importance integration technology such as e-commerce, systems digital payments, and online marketing as booster efficiency efforts. However, the limitations study This lies in the lack of exploration empirical at the local level or specific geographic area, which is one of the gap for study based on area such as East Lombok.

(Salam, 2024) researching digital transformation of UMKM products local in Banda Aceh with method qualitative descriptive through observation and interview limited with perpetrator business. Research This focus on development product local based on mark optimized culture through digital technology. The results show that potential local UMKM economy can improved with stakeholder collaboration in develop digital ecosystem. However, the study This tend limited to city province with relatively infrastructure more well, so Not yet reflect challenge digital transformation in the region with limitations digital access and literacy, such as regency rural.

Study Rohmana (2023) use approach studies literature (literature review) that examines issues macro related digital economy and MSMEs. The focus is opportunities and challenges in the digital era towards growth of MSMEs, including aspect regulations, infrastructure, and HR readiness. Although give runway strong theoretical, gap from study This is No the existence of empirical data or context local analyzed in a way directly, make his findings nature common and less contextual.

Abdillah (2024) serve study quantitative with survey data on MSMEs in the Nias region. This study measure influence digital technology against growth business, with focus on application technology in production, promotion, and management. Research This show correlation positive between adoption technology and improvement performance of MSMEs. However, the object research that is limited to one area makes generalization the result limited. The gap located in yet the excavation dynamics socio-cultural and resistance to

*Corresponding author's e-mail: *muliani@universitasbumigora.ac.id*

digitalization, especially among micro and traditional MSMEs.

(Saragih et al., 2024) use method quantitative with approach survey for measure impact digital literacy towards performance of MSMEs in North Sumatra. Research This conclude that high digital literacy correlated positive with development business. Object study covers fostered UMKM actors from a number of digital comunity. Gap from studies This is the focus is still on urban-suburban areas and not include dimensions culture or social local as factor former digital behavior.

Greetings (2024) nature studies case in -depth qualitative research in Banda Aceh City, discussing implementation digitalization of MSMEs in the Industry 5.0 era. highlight importance touch mark humanity, sustainability and personalization technology in the process of digital transformation. Objects his research is a start-up MSME that has adoption technology continued. Although rich in conceptual insights, the study This No discuss challenge digitalization in conventional MSMEs or micro which often faces obstacle more big in adoption technology, which becomes room empty for exploration more carry on.

(Rizki Agam Syahputra, 2023) researching influence digitalization towards branding of MSMEs in the Sumatra region with method survey descriptive. They show that digitalization capable strengthen identity brand and expand the market. Focus the object is a UMKM sector crafts and food. Gap in study This is Not yet existence analysis deep to internal constraints such as digital capacity of MSME actors and dependence against external platforms at risk to branding sustainability.

From several the literature above , can concluded that although Lots study has highlight role important digital transformation towards strengthening of MSMEs, still there are significant gaps, in particular in SME context in rural areas or outskirts city with limitations digital infrastructure. In addition, most study use approach macro or urban areas, and not yet many are digging depth socio-cultural as well as practice digitalization based on community local. This is what makes room contribution study this, with placing MSMEs in East Lombok as object contextual and make dynamics local as part from framework analysis.

3. RESEARCH METHOD

This research uses a qualitative methods with approach an in-depth interview and non participatory Observation. This method refers to the study conducted by Greetings (2024) using the qualitative descriptive method through observation and interview. The interview is comprehensively explore how digital technology innovation influences the economic transformation of MSMEs in East Lombok Regency. This approach was chosen because it is able to explore perceptions, experiences, and socio-economic dynamics that cannot be revealed through a quantitative approach alone. Qualitative research provides flexibility in understanding the local context, social conditions, and structural limitations faced by MSME actors, especially in areas that are still developing digitally.

The research location is centered in several sub-districts in East Lombok Regency, West Nusa Tenggara Province. This area was chosen because it shows significant growth of MSMEs, but still faces various challenges in adopting digital technology, such as limited infrastructure, low digital literacy, and minimal systemic support from local governments and financial institutions.

The objects of the research are MSME actors from various sectors (culinary, fashion, crafts, and services), who have, are, or have not implemented digital technology in their business activities.

3.1. Data Collection Techniques

The data collection technique in this study was designed to gain a comprehensive understanding of the dynamics of the economic transformation of MSMEs through the adoption of digital technology in East Lombok Regency. Given the approach used is qualitative with in-depth interview methods and Non-Participatory Observation. This approach refers to the study conducted by Greetings (2024) using the qualitative descriptive method with approach observation and interview. In-depth interviews are the main technique in this study. This approach is used to explore in depth the views, experiences, motivations, and obstacles felt by MSME actors in adopting digital technology. Interviews were conducted in a semi-structured manner using flexible open-ended question guides. Observations were conducted as a complement to interview data, especially to understand the operational conditions of MSMEs directly and identify the use of digital technology in daily activities.

3.2. Operational Definitions of Variables

In this qualitative research, variables are not measured numerically, but are described in the form of thematic concepts explored through in-depth interviews and field observations. The following is an operational definition of the main concept that is the focus of the research. The Economic Transformation of MSMEs is a change that occurs in the process, structure, and performance of micro, small, and medium enterprises as a result of the integration of digital technology into business activities. The indicators used are changes in business models or distribution channels, increased production/sales volume, market expansion, changes in consumption patterns and business management.

Digital technology innovation is the use of digital-based technology that includes software, digital platforms, and information systems to support or change MSME business processes. The indicators used are the use of social media for promotion, utilization of marketplaces/e-commerce, digital payment systems (QRIS, e-wallet), and financial recording applications. Technology adoption is the level of readiness and implementation of digital technology by MSME actors in their operational and strategic business activities. The indicators are the intensity of use of digital devices, knowledge of digital tools/platforms, motivation and attitudes towards technological innovation. Barriers to digitalization are various challenges faced by MSME actors in the digital transformation process, both from internal and external aspects. The indicators are low digital literacy, limited access to internet infrastructure, costs and limitations of human resources, limited training and government support.

Social and Economic Impact is a change in the social and economic aspects of MSME actors as a result of digital-based transformation. The indicators used are increased income, expansion of social networks/partners, changes in work patterns and business relations, balance between modernization and local wisdom.

3.3. Data Analysis Techniques

The data analysis technique in this study uses a thematic analysis approach to identify and understand patterns of

*Corresponding author's e-mail: *muliani@universitasbumigora.ac.id*

meaning from qualitative data obtained through in-depth interviews and observations. The analysis process is carried out systematically starting from the data familiarization stage, initial coding, grouping codes into themes, to in-depth thematic interpretation. Each theme that emerges reflects the dynamics of the digital transformation of MSMEs, including the challenges of technology adoption, innovation strategies, and the economic impacts felt by business actors. The next stage is data triangulation and member checking to strengthen the credibility and validity of the findings. This stage is important because it aims to ensure the validity of the results. This technique allows for a contextual and in-depth understanding of the socio-economic realities of MSMEs in East Lombok Regency in facing the digital era.

4. RESULTS AND DISCUSSION

This study successfully identified various dynamics of digital transformation among MSMEs in East Lombok Regency through in-depth interviews with 40 business actors spread across several sub-districts, covering the culinary, fashion, handicraft, service, and processed agriculture sectors. The main findings show that the adoption of digital technology has begun to reach rural MSMEs, although with varying intensity and quality.

4.1. Results
4.1.1 Adoption Gradual and Varied to Digital Technology

The majority of respondents acknowledged significant changes in the way they manage their businesses since the introduction of digital technology, although the level of adoption varies. Business actors in district cities such as Selong and Labuhan Haji are more adaptive because they have stable internet infrastructure, access to digital training, and a community of technology users. They utilize social media for marketing, use simple financial recording applications, and sell products through e-commerce such as Tokopedia and Shopee. In contrast, MSMEs in areas such as Pringgabaya, Jerowaru and the other is still rely on conventional methods due to limited digital devices and skills. Technology adoption is generally functional and not systematically integrated into the business model.

4.1.2 Obstacle Structural and Social Culture
The digital transformation of MSMEs in East Lombok still faces major structural and cultural obstacles. From a structural perspective, the main obstacle is the uneven digital infrastructure, especially in hilly and coastal areas. Several respondents complained about weak internet signals and high quota costs. Culturally, some business actors, especially the older generation, feel unfamiliar with technology and are reluctant to learn. There is a perception that the use of technology is expensive and does not conform to local traditions. Some respondents also expressed doubts about the security of digital transactions and the potential for online fraud that they heard from colleagues.

4.1.3 Transformation and Business Model Change
Digital transformation has trigger change in structure economics and business models UMKM actors in East Lombok Regency. A number of Respondent disclose that before adopt digital technology, business they walk in a way conventional depend on marketing from mouth to mouth, manual recording, and limited market reach to the surrounding area. However, since they start utilizing social media such as

WhatsApp, Facebook, and Instagram, as well as e-commerce platforms such as Shopee and Tokopedia, occurred market expansion significant, including to outside area even cross province.

Transformation This also has an impact on efficiency operational. Some perpetrator business culinary and crafts hand report that use technology help they arrange order in a way more structured, predictive request, and manage stock material standard in a way more right. In addition, the use of application digital cashier and record keeping finance simple allow they monitor cash flow and profit in a way more systematically, even on a small scale limited. The business model that was initially only based on production and sales direct now start shift to direction service based on ordering, online sales, and reseller systems. In fact, some Respondent state start develop system partnership for expand distribution product. Changes This reflect existence adaptation to pattern consumption an increasingly diverse society digitized, at the same time strengthen Power MSMEs' competitiveness in a wider market competitive.

However so, no all MSMEs experience uniform transformation. SMEs with capacity source Power limited human beings, especially from circles perpetrator business elderly or those in areas with minimal digital infrastructure, still experience difficulty in do business model changes. This is show that transformation economy through digitalization No only depends on the existence technology, but also mental readiness, digital skills, and access to assistance. With Thus, changes in the business model of MSMEs in East Lombok are indicator strong the occurrence transformation economy based on digitalization. Although Not yet comprehensive, direction shift going to efficiency, market expansion and innovation service show potential big for strengthening economy local in a way sustainable.

4.1.4 The Role of Digital Literacy and Support External

The study also found that the success of digital transformation is highly correlated with the level of digital literacy and access to training. MSMEs that have participated in digital training organized by the Cooperatives and SMEs Service, non-governmental organizations, or CSR programs from the private sector tend to be more confident in using technology. They show initiative to explore new features and are more critical in choosing the right platform. On the other hand, MSMEs that have never participated in training appear stagnant and tend to be passive. This shows the need for sustainable training programs that are not only one-time, but also in-depth and based on local needs.

4.1.5 Digital Divide between regions

One of the important findings in this study is the existence of a digital divide between sub-districts or regions within a district. Differences in access to infrastructure, quality of human resources, and social networks create a wide digital disparity between MSMEs in central and peripheral areas. MSMEs in areas with high connectivity are able to utilize technology progressively, while business actors in remote areas continue to rely on traditional methods and local social relations. This condition shows that digital transformation at the local level does not only depend on national policies, but also demands a more contextual and inclusive approach at the regional level.

4.2. Discussion

Research result This confirm that digital transformation among MSMEs in East Lombok Regency has show development positive , although Still nature partial and (Zikri, 2024) , adoption

proven digital technology capable increase Power competitiveness and efficiency operational perpetrator business , especially those that have capable utilizing social media and e-commerce platforms active . However , the challenges structural like limitations infrastructure and low digital literacy , as also identified by (Saragih et al., 2024b) Still become inhibitor significant , especially in the suburbs and coastal areas .

Findings about digital divide between regions strengthen statement (Rohmana, 2023) that The growth of digital- based MSMEs is highly dependent on the context local and access to source Power technology . In addition , the fact that digital training has role big in push change behavior perpetrator business support view (Rahmuniyati et al., 2023) about importance support ecosystem external in the process of transformation.

An important part of this study lies in mapping the intra-regional digital divide and the dynamics of cultural identification that were often overlooked in previous studies. The study explored about transformation ecomomy though increase sales revenue, operational efficiency, market expansion and digital-based operational efficiency. This study give a better picture contextual and in-depth about reality digital transformation at the level district, especially in the area with characteristics geographically and socio - economically diverse such as East Lombok.

5. CONCLUSION

This study show that digital transformation has role strategic in push transformation UMKM economy in East Lombok Regency. Through utilization digital technology especially social media, systems digital payments, and online platforms, MSMEs are starting to experience change in business model, management operational, up to expansion market access. Transformation economy This marked with increasing efficiency, productivity, and more market orientation broad and dynamic. However, this process Not yet in progress in a way evenly distributed. Findings This also confirms that digital training and support external can become catalyst for the occurrence transformation an inclusive and sustainable economy. Thus, the transformation MSME economy in the digital era is not only subject to availability technology, but also on readiness source Power human, policy adaptive local, as well as collaboration inter-stakeholder interest. Research This add perspective new with highlight importance approach contextual in understand dynamics digitalization of MSMEs in the regions, especially at the district level with characteristics geographically and socially diverse.

REFERENCES

Abdillah, F. (2024). Dampak Ekonomi Digital Terhadap Pertumbuhan Ekonomi di Indonesia. *Benefit: Journal of Bussiness, Economics, and Finance*, *2*(1), 27–35. https://doi.org/10.37985/benefit.v2i1.335

Babys, S. A., Prayitno, E., & Benu, E. (2024). Analisis Faktor-Faktor Penghambat Pengembangan Desa Digital Indonesia. *Oratio Directa (Prodi Ilmu Komunikasi)*, *6*(1).

KEMEN-KUKM. (2023). Peraturan Menteri Koperasi Dan Usaha Kecil Dan Menengah Republik Indonesia. *Menteri Koperasi Dan Usaha Kecil Dan Menengah Republik Indonesia*, *405*, 1–18.

Rachman, D. F. (2024). Evaluasi Kinerja Pemerintah Daerah Lombok Timur Dalam Membina Wirausaha Tahun 2023. *Jurnal Ilmu Sosial Dan Humaniora*, *2*(4), 695–706.

Rahmuniyati, M. E., Fitriani, A., Rusyani, Y. Y., Soekardi, R., Studi, P., Masyarakat, K., Sarjana, P., Kesehatan, F. I., Yogyakarta, U. R., Raya, J., Km, T., Dahlan, U. A., Yogyakarta, D. I., Pakem, P., & Yogyakarta, S. D. I. (2023). *Edukasi Kesehatan Pencegahan Stunting Bagi Masyarakat*. *05*(02), 21–31.

Rizki Agam Syahputra, C. W. A. P. O. M. L. (2023). Peningkatan Kemampuan Branding UMKM Melalui Proses Digitalisasi Bisnis. *Pengabdian Kepada Masyarakat Nusantara (JPkMN)*, *4*(1), 521–527.

Rohmana, D. W. (2023). Peranan Ekonomi Digital dalam Peningkatan Pertumbuhan UMKM: Peluang Dan Tantangan. *In Indonesian Proceedings and Annual Conference of Islamic Law And Sharia Economic (IPACILSE)*, *1*(1), 42–48.

Salam, A. (2024). Transformasi Digital UMKM Indonesia di Era Industri 5.0: Studi Kasus di Kota Banda Aceh. *Jurnal Manajemen Dan Teknologi*, *1*(1), 1–10.

Saragih, J. F. L., Faradilla, A. J., Nasution, R. A., Tafonao, D. F. A., Pitaloka, D., Amelia, B., & Dongoran, D. (2024a). Menutup Kesenjangan Digital: Studi tentang Meningkatkan Kehidupan UMKM Melalui Literasi Digital. *Jurnal Kolaboratif Sains*, *7*(5), 1788–1795.

Saragih, J. F. L., Faradilla, A. J., Nasution, R. A., Tafonao, D. F. A., Pitaloka, D., Amelia, B., & Dongoran, D. (2024b). Menutup Kesenjangan Digital: Studi tentang Meningkatkan Kehidupan UMKM Melalui Literasi Digital. *Jurnal Kolaboratif Sains*, *7*(5), 1788–1795.

Shohibboniawan Wahyudi, A., Yulivan, I., & Rahman, A. (2024). *The role of micro, small, and medium enterprises (MSMEs) in supporting Indonesia's economic resilience. Nasionalism dan Integrity, 10 (2)*, *297–307*.

Yulistiawan, B. S., Hananto, B., Pd, C. N., & Handayani, L. (2024). Pemanfaatan teknologi digital dalam upaya meningkatkan daya jual produk UMKM. *Jurnal Abmas Negeri (JAGRI) Vol*, *5*(1).

Zaini, R. (2024). Efektivitas Digitalisasi UMKM dalam Meningkatkan Daya Saing Ekonomi di Era Industri 4.0. *Pro Ekonomi*, *1*(1), 26–33.

Zikri, H. (2024). Transformasi Ekonomi Digital untuk Meningkatkan Produktivitas dan Daya Saing UMKM di Indonesia 1. *Jurnal Ekonomi Syariah*, *02*(01), 16–25.