

Utilization of Information Technology (IT) in Micro, Small and Medium Enterprises (MSMEs) by Women Business Actors in Pesawaran Regency

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Abstract

The utilization of information technology (IT) has become an important factor in increasing the efficiency and competitiveness of the Micro, Small and Medium Enterprises (MSMEs) sector. The purpose of this study was to determine the level of IT utilization by women business actors in Pesawaran Regency in their daily business activities. This research was conducted in Pesawaran Regency. Data collection in this study was conducted in April-June 2025. Respondents in this study were 97 female MSME players operating in the region. The method in this study used a survey method and the research location was determined purposively with a quantitative descriptive approach. The results showed that the majority of respondents, 52 people (53.60 percent), were classified in the “moderately intensive” category. Women business owners have recognized and used digital communication platforms such as WhatsApp and Facebook to support their business activities, especially in promotion and interaction with customers. However, utilization of more complex business applications such as marketplaces, digital bookkeeping software, and content-based marketing strategies is still low. Key barriers include limited digital literacy, access to technology tools,

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Micro, Small and Medium Enterprises (MSMEs) are the backbone of the Indonesian economy, contributing more than 95% of the total national business units and absorbing a large number of workers. In the midst of the digital era, the utilization of Information Technology (IT) is crucial to improve the competitiveness and operational efficiency of MSMEs, especially for women entrepreneurs who often face multiple challenges in business development. The existence of MSMEs is spread across all provinces in Indonesia, including Lampung Province. The number of MSMEs in Lampung Province in 2019-2021 according to Lampung Province in Figures 2022 can be seen in Table 1.

Table 1. Number of MSMEs in Lampung Province in 2019-2021

No	Kabupaten/Kota	2019	2020	2021
1	West Lampung	1.221	354	1.747
2	Tanggamus	5.220	186	186
3	South Lampung	415	179	179
4	East Lampung	41.327	511	547
5	Central Lampung	1.327	796	796
6	North Lampung	11.360	364	457
7	Way Kanan	12.308	840	840
8	Tulang Bawang	944	23	23
9	Pesawaran	2.040	701	701
10	Pringsewu	6.919	373	1.933
11	Mesuji	3.144	292	292

12	West Tulang Bawang	3.084	482	482
13	West Coast	2.245	68	429
14	Bandar Lampung	10.572	118.533	118.533
15	Metro	8.233	23.854	23.854

Source: District/City Office of Cooperatives and SMEs in 2019 Online Data Dos (ODS) 2020-2021

In Pesawaran Regency, Lampung Province, female MSME players show high enthusiasm for digital transformation. The local government through the Office of Industry and Trade (Disperindag) has established strategic cooperation with the BRI Research Institute to provide training in digital marketing, social media utilization, and digital ecosystem development. This program not only aims to increase business capacity, but also encourage the independence and sustainability of women's businesses in the micro and small sectors.

In addition to external encouragement in the form of policies and training programs, internal factors such as motivation and adaptability of women business actors also determine the success of IT integration in MSME business practices. Many women entrepreneurs in Pesawaran utilize digital platforms such as WhatsApp, Facebook and TikTok not only to sell, but also to build a loyal customer community. This transformation marks a shift in thinking from simply selling to building a sustainable digital business ecosystem that is responsive to market needs.

In addition, IT utilization contributes to increased financial inclusion and access to business capital. Technology enables women entrepreneurs to reach digital financial services, such as e-wallets and microfinance applications, which were previously difficult to reach through conventional channels. Rifani et al. (2025) shows that MSMEs that have adopted digital record-keeping systems have a higher chance of accessing funds from formal financial institutions due to better financial transparency. This finding indicates that IT is not only a business support tool, but also a medium for women's overall economic empowerment. However, the utilization of IT by women MSME players still faces various obstacles, such as limited digital literacy, lack of access to technological devices, and low understanding of the potential of digital data. Research by Nurhasanah et al. (2022) shows that the majority of MSME players in Pesawaran Regency still rely on conventional methods in marketing and transactions, making it difficult to reach a wider market.

Research Objectives

This study aims to assess the extent to which IT utilization has been adopted by women entrepreneurs in Pesawaran Regency. This study is expected to provide strategic recommendations for the development of inclusive and sustainable technology-based MSMEs.

Conceptual framework of the study

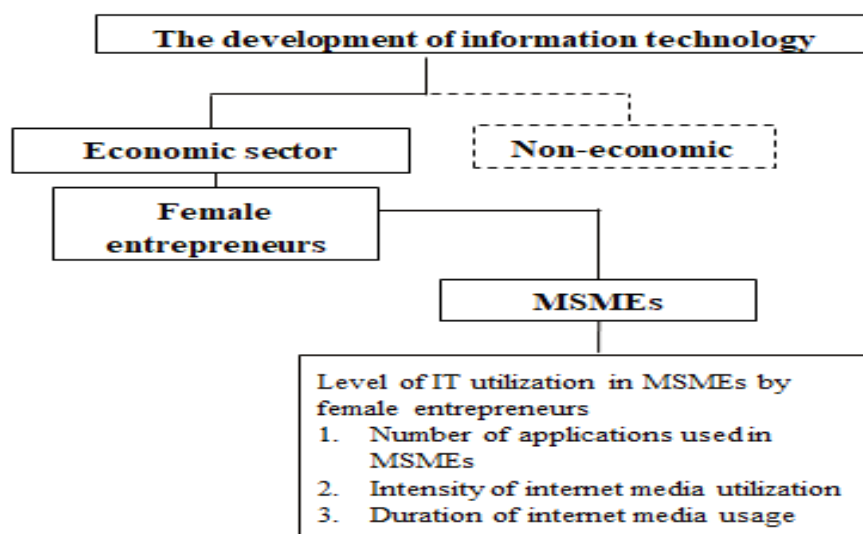


Figure 1: Conceptual framework

Research Method

This research was conducted in Pesawaran Regency. The consideration for determining the location of this research is that the MSME actor is a female business actor and has implemented MSME business digitalization in the marketing system. Data collection time starts from April-June 2025. The types of data collected are primary data and secondary data. Primary data collected includes the identity of respondents, namely age, education level, status in the family, length of entrepreneurship, and all matters relating to the variables studied. Secondary data is data obtained from related institutions or agencies, namely the general condition of the research location, and the number of MSMEs in Pesawaran Regency. The method in this study uses a survey method and the research location is determined purposively with a quantitative approach that is strengthened by information based on qualitative data (Oktavia, 2019). Respondents in this study were 97 women business actors. Analysis of IT utilization in MSMEs by women business actors in Pesawaran Regency uses quantitative descriptive analysis methods using tabulation presentation and determination of the tendency of respondents' scores according to variables. In measuring the utilization of IT by women business actors in this study, it is classified into five classes of criteria, namely very intensive, intensive, quite intensive, less intensive, and very less intensive, which are calculated using the class interval formula as follows:

$$\text{Class interval} = \frac{\text{max value} - \text{min value}}{\text{classification}}$$

Results And Discussion

The utilization of Information Technology (IT) in Micro, Small, and Medium Enterprises (MSMEs) by women business owners refers to the use of various digital tools and applications to improve efficiency, productivity, and market access for businesses owned by women business owners. Information technology (IT) utilization has been identified as an important factor in improving business competitiveness and sustainability, especially in the context of facing increasingly complex market challenges. IT utilization can be measured in a number of ways. First, the number of applications used in MSMEs can be used as an indicator. Second, the intensity of internet media utilization can be measured. Third, the duration of internet media usage can be used as an indicator. The distribution of respondents based on IT utilization in MSMEs by women business owners can be seen in Table 2.

Table 2. Distribution of respondents based on IT utilization in MSMEs by women business owners

No	Measurement (score)	Classification	Total (People)	Persentase (%)
1	12-14	Very intensive	8	08,24
2	10-11	Intensive	10	10,30
3	8-9	Moderately intensive	52	53,60
4	6-7	Less intensive	9	09,27
5	4-5	Very less intensive	18	18,05
Total			97	100,00
Avarage			8,2 (Moderately intensive)	

Table 2 shows that the utilization of IT in MSMEs by the most respondents is in a fairly intensive classification, namely 52 respondents with a percentage of 53.60 percent. The level of information technology utilization by women entrepreneurs in Pesawaran Regency shows a significant development, although there are still some challenges in the adoption of digital technology as a whole. In daily operational activities, women business owners in this area have begun to utilize various applications to support their business management. These applications include inventory management, accounting, marketing, and communication. However, for the bookkeeping aspect, they still use manual methods, indicating a need for improvement in terms of utilizing digital accounting applications.

In terms of communication and marketing, WhatsApp and Facebook are the main platforms used. Businesses make the most of WhatsApp's features, from chat, phone calls, video calls, to sending voice messages, photos, and videos. They also regularly upload stories on WhatsApp and make posts on Facebook, and interact through comments and direct messages from customers. Businesses often make posts on Facebook to promote their products, customers who comment to continue purchasing are diverted to WhatsApp for more intense and personalized communication. Some businesses have also used Whatsapp Business.

The dominant trend among businesses is to utilize WhatsApp (WA) and Facebook (FB) applications as the main media to run their daily business operations. This is because both Facebook and WhatsApp applications are the most commonly used platforms and have very easy-to-understand features, such as chat, voice calls, video calls, and sending photos and videos. On top of that, they allow them to interact directly with customers more efficiently and in real-time, making Facebook and WhatsApp a more practical and effective first choice compared to other more complex applications.

Some businesses use WA exclusively, while others opt for a multifaceted approach, utilizing WA along with FB, Instagram (IG), and TikTok to achieve a wider market reach. For some businesses, Instagram is indeed a very effective tool to build brand image, where they also create content such as Reels and go live to get closer to customers. The same is true for the TikTok app, where viral content posts with a wide reach allow products to be more widely known to consumers. Meanwhile, special applications for marketing products, a small number of respondents have utilized e-commerce platforms such as Shopee and Tokopedia, and there is one that has successfully penetrated the export market, including shipping products to Korea and to Japan. This shows that the utilization of information technology is not limited to domestic marketing but extends to the international market as well.

E-commerce applications such as Shopee provide great opportunities for women entrepreneurs in Pesawaran Regency to develop their businesses, such as in the sale of products such as rengginang, tapis, and various other local processed products. Through this platform, they can reach customers from various regions more easily thanks to the extensive delivery system and integration of logistics services. Shopee Mall features and promotional discounts also increase the competitiveness of their products in the national market. Shopee makes it easy to manage stores with sales analytics, stock management, and direct communication with buyers. Shopee's presence helps women entrepreneurs to optimize their business potential, expand their market, and increase revenue significantly without having to leave home. Examples of MSMEs that have utilized Shopee can be seen in Figure 2.

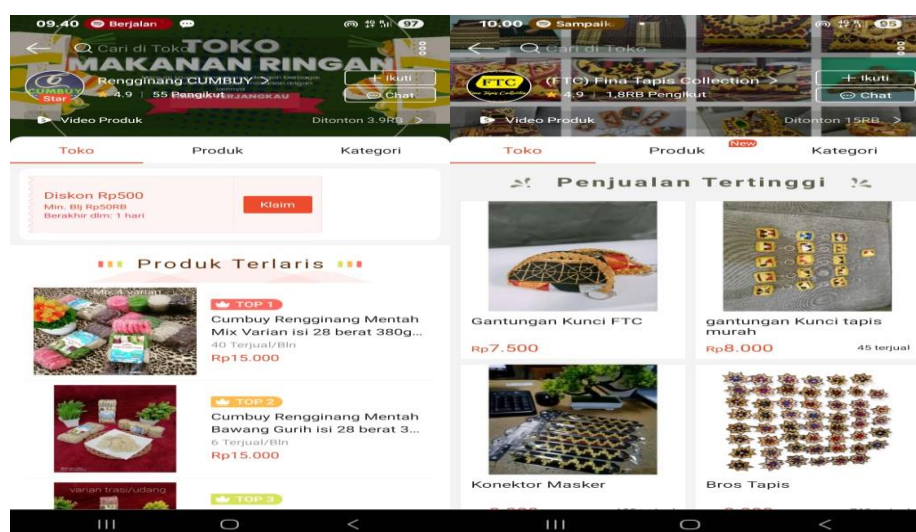


Figure 2. Example of MSME with Shopee

Businesses in Pesawaran Regency show varying intensity in using digital platforms such as WhatsApp, Facebook, Instagram and Shopee as part of their marketing and sales strategy for local products. WhatsApp

is consistently utilized by most respondents for direct communication and quick service to customers as well as the only digital marketing application, while a small number of respondents use Instagram as a visual showcase that strengthens brand image and builds engagement with audiences. On the other hand, some respondents who intensively utilize IT use Shopee and make it the main channel in sales transactions, with e-commerce features that facilitate order management and wider market reach. All three platforms, when used together, complement each other and can be actively used on a daily basis to support the sustainability and growth of each business.

The duration of use of the apps by respondents was quite long, with some businesses spending between seven and eight hours per day running their business activities through the apps. In fact, some said that they open WhatsApp almost all day, especially at night to check orders and reply to messages from customers. The use of these apps not only helps them expand their market, but also promotes faster and more efficient communication with customers. Their activeness on social media and e-commerce platforms gives them an advantage in terms of marketing and direct interaction with customers, which in turn helps in increasing sales.

The increasing use of information technology can be seen as an indication of the adaptability and willingness of women business owners to utilize technology to develop their businesses. Utilization of various application functions will help businesses expand their networks, increase sales, and build stronger relationships with customers. There are opportunities to increase the use of technology, especially in creative content development and the use of other digital platforms to reach a wider and more diverse range of consumers. While information technology has been widely utilized, there are challenges related to the adoption of digital applications for bookkeeping and accounting that are still done manually. This shows that although technology has been widely used, the utilization of technology in internal business management, such as financial recording, still needs more attention. With more intensive training or education, women business owners in Pesawaran Regency can further optimize the use of digital technology to increase efficiency and manage their businesses more professionally.

Conclusion

There are eight MSMEs (representing 08.24 per cent of the sample) classified as Information Technology (IT) users in the context of Micro, Small and Medium Enterprises (MSMEs), which fall into the “very intensive” category. The majority of respondents, 52 people (53.60 percent), fall into the “moderately intensive” category. This is due to the fact that the majority of businesses use limited social media, such as WhatsApp and Facebook, to carry out daily operations. Only a small number have expanded their use by adding Instagram, TikTok, and e-commerce platforms such as Shopee. However, there is one business that has effectively penetrated the export market.

Suggestions

The conclusion of the study shows that the use of IT can be said to be still not optimal, so it is recommended to related parties to provide practice-based training programs (such as simulations of the use of Instagram, TikTok, and e-commerce), create local showcases of MSME players who have successfully penetrated the export market as inspirational role models, and encourage the use of multi-platforms to expand market reach and increase business efficiency and competitiveness.

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