From Villages to World Markets: Women and E-Commerce in East Sumba, East Nusa Tenggara

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Abstract
This paper focuses on the use of e-commerce by women weaving craftsmen, in Sumba, East Nusa Tenggara. In 2020, We Are Social noted that 56% of Indonesia's population are active internet users, including 29% of the population are active e-commerce users. The Indonesian Creative Economy Agency report states that 36% of e-commerce traders in Indonesia come from rural areas, especially in Java. Data shows that fashion and craft-based creative industries have a high contribution to the national economy, and for this reason, the government has taken several policies in fostering and developing the creative industry, one of which is by increasing the development of business groups that are under the creative industry, especially those based on fashion and regional crafts. Sumba is known as Pahikung weaving where most of the industrial craftsmen are women. Using the ethnographic method, by interviewing twelve women weaving craftsmen, this paper explains that the marketplace opens up opportunities for better weaving sales by cutting distribution channels so that their products can be directly accepted by consumers, and by promoting through social media, they cut indirect costs. However, there are three main obstacles faced: production costs, distribution, and access to financial services. With this mapping, it is hoped that it will encourage more accommodative policies towards women craftsmen in rural and remote areas in Indonesia.

Keywords: Entrepreneurship, E-Commerce, Social Media

INTRODUCTION
Indonesia is known as a producer of various kinds of woven fabrics. One traditional woven fabric that has its own characteristics both in color and motif is Pahikung woven fabric originating from East Sumba, East Nusa Tenggara. Woven fabric originating from Sumba has a high selling value because of manufacturing techniques that require expertise and precision - to make a piece of woven fabric, it takes at least three months to make weaving strands of yarn before finally becoming a piece of cloth.

The woven fabric industry is classified as a creative industry, which is based entirely on the utilization of individual creativity, skills and talents to create prosperity and employment by generating and exploiting the individual's creative and creative power (Andari et al., 2017; Cho et al., 2020). The weaving creative industry is classified as a sub-sector of the creative industry based on fashion and craft. In Indonesia, the data from The Indonesian Creative Economy Agency shows the contribution of the creative economy in terms of exports, during the period 2012-2018 it reached 9.2%. Even the contribution of the creative industry sector in 2018 to GDP increased from 7.28% in 2018 to 7.6% in 2019 (Badan Ekonomi Kreatif, 2019, 2020).
Given the large contribution of the creative industry to the national economy, the government has taken several policies in fostering and developing creative industries. One of these policies was poured through Presidential Instruction 6/2009 concerning the Development of the Creative Industry. The development of the fashion and craft industry plays an important role in the creative industry. The two sub-sectors of the creative industry have a high contribution in the creative industry both in value added, labor, number of companies and exports. Based on data from the Ministry of Commerce in 2010, the added value generated by the fashion and craft sub-sector is 44.3% and 24.8% of the total creative industry sector with employment of 54.3% and 31.13%. Where for the fashion industry, in 2013, the labor absorption that occurred was 3.8 million workers out of a total of 11.9 million creative economy workers. While the contribution of the number of businesses was 51.7% and 35.7% respectively. The magnitude of the dominance of the two sub-sectors is in line with the diversity of fashion and craft culture in Indonesia.

Specifically, the fashion industry is one of the important industries in the development of the Indonesian Creative Industry. In 2013, of the 15 Creative Industry sectors, fashion became the second largest contributor to the National Gross Domestic product, which amounted to 181 trillion Rupiah from a total of 15 creative economic sectors of 642 trillion Rupiah. Plus, the growth of the fashion industry is higher than the national growth, where the fashion growth that occurred in 2013 was 6.4% while the national growth that occurred in 2013 was 5.7%.

In East Sumba, one of the creative industries based on fashion and handicrafts owned is the woven fabric industry. Most woven fabric craftsmen are women. The problem is, limited access to transportation and the lack of markets make woven cloth produced by women in Sumba difficult to sell. To improve this creative industry, the empowerment of women owners of this industry is carried out through various programs and technologies. One of the technologies applied is information technology, or known as e-commerce (Rambu Babang & Rachmad Rinata, 2019; Untari & Sanjaya, 2020).

Through the use of this information technology, small and medium enterprises can enter the global market easily. The use of information technology in running a business or often known as e-commerce for small companies can provide flexibility in production, enable faster delivery to customers, send and receive offers quickly and economically, and support paperless fast transactions. The use of the internet allows SMEs to market with global market goals. In addition, marketing through the concept of e-commerce through marketplace and social media is considered more attractive and flexible than traditional systems (Etim, 2020; Muafi et al., 2019; Nurazizah & Chumaidiyah, 2020). This is due to the flexibility of renewal of new products, information about products and direct feedback from consumers. Not only that, this flexibility also includes the availability of accessibility in the business world worldwide for 24 hours 7 days a week (Hongdiyanto et al., 2020; Rufaidah, 2019).

The existence of an e-commerce platform opens opportunities to promote products without considering the aspects of space and time, including being very light in terms of costs because it eliminates the need to open shops offline, which means eliminating salary and rental fees. However, there are a number of obstacles that must be faced by these women in promoting the products they make. This paper focuses on how women weavers in Sumba not only utilize technology, but also map the constraints and opportunities that exist for their benefit.

RESEARCH METHODS
This study aims to explore how the use of e-commerce, via marketplace and social media, by women weaving craftsmen in East Sumba. Through ethnographic method, using in-depth interviews with twelve Pahikung woven fabric craftsmen as informants. In the interview
process, researchers observed how women in East Sumba use technology, both e-commerce in the marketplace platform and social media.

All informants in this study have been doing weaving business since they were teenagers. In the socio-cultural context of the East Sumba community, weaving is an obligation that must be done by every woman. Since childhood, women in Sumba have been taught to weave. All of our informants have been weaving at least since they were twelve years old. All informants have established woven handicraft businesses for more than fifteen years with most of them being small business categories with a number of employees under ten people. The average age of the owner was 35 to 60 year; this indicates that the research informant plunged into a weaving business from a young age and in a productive age range.

Based on the results of observations, it was found that business owners from the productive age group and young people on average came from small business groups, while the mature age group (over 40 years) is a medium business owner. From an educational background, the majority of female SME owners are elementary school graduates or equivalent to a portion of 70%. This is because after graduating from elementary school most informants immediately jumped into the world of weaving and did not continue their education, only three people continued their education to junior high school level.

The twelve informants are craftsmen and owners of a weaving business. Often, they also receive weaving from their neighbors or closest relatives to be promoted along with their own products. In general, the weavers make the product according to what they want, it is very rare that they weave a specially ordered motif. The weavers usually only mastered two to four motifs which later became their trademark. The weaving process begins with selecting the motif to be made, purchasing the yarn, arranging the yarn into the loom, and the weaving process begins, which takes between four days to three months, depending on the complexity of the design and color. After the weaving process is complete, they usually display their weaving product to the marketplace and social media, then the weaving process starts again from the beginning.

RESULTS AND DISCUSSION
Women and E-commerce: some notes

In mapping the use of e-commerce by the informants, internet and social media usage will be identified first. Based on research, it can be identified that internet adoption and social media carried out by women weaving business owners are quite high. Almost all research informants have traded online or made use of the marketplace and social media.

One crucial issue is the limited resources in IT or managing social media, making some weaving business owners, especially those who are over 40 years old, have difficulty using e-commerce. Of the twelve informants, nine informants already used e-commerce, both through the marketplace and social media, and three informant used only social media to promote the products they made. With the increasing rapid use of the internet and social media, it is suspected that for the future the number of internet and social media users will increase.

Most of the research informants who actively use marketplace or social media as marketing media, their business has a age below 40 years. This indicates that with a productive age, research informants have easier access to using social media and the internet. With the development of the technology era and modernization as it is today, makes informant every day is connected to the internet, making it easier for them to market woven products and look for designs and the latest models to further develop their business.

Promotion of products and services in the present is increasingly advanced and easy to do since the presence of the internet and social media. Since the presence of social media for promotion, business promotion is no longer done via radio, print media or television. Nowadays it can be called the digital era where online media is a popular container used to promote a
business. This was also used by informants in marketing their weaving products. The researcher found that all research informants used social media to market and promote their products. The types of social media used are mostly Facebook and Instagram, this is done because social media is more accessible and has lower costs.

When SMEs apply the electronic trading system, this automatically eliminates directly the need for intermediary distribution channels and extends the reach of distribution out of the region globally (Cho et al., 2020; Farhoomand & Lovelock, 2019; Rufaidah, 2019). Through the adoption of this electronic trading system, it will change the trend in the distribution system where electronic retailers (e-retailers) will also become retailers and distribution centers. Another advantage gained by SMEs in conducting electronic commerce is reducing and cost efficiency which will ultimately have an impact on prices that will be increasingly competitive.

On the other hand, it is interesting to see that website promotion is still lacking. Only three informants have their own websites, and even then they still ride with Wordpress. In websites that are only product photos, not yet on websites that are intentionally built with a buying and selling platform, so website visitors can only see photos, most of which are in poor image quality. If the visitor wants to buy the cloth displayed, the buyer must contact the seller directly. Another problem, websites are rarely updated by sellers, so often old posts are still in the headline section of the website. In many interviews it is known that the costs are quite expensive and there are no people who are experts in the field of IT, the lack of time to manage causes most research informants to prefer marketplace and social media than having their own website.

Most consumers served are still domestic consumers. This is due to the use of woven fabric only for certain occasions such as during wedding ceremonies and other official ceremonies. However, there are still opportunities for entrepreneurs to increase the number of consumers from abroad such as Malaysia, Japan and Canada. Several craftsmen regularly ship their products to South Korea, Japan, Thailand and Australia only, the problem lies in the limited payment methods available.

Generally speaking, there are three payment methods commonly used in transactions using e-commerce (Fauzi et al., 2020; Yudhistiro et al., 2020). First, is the Online Credit Card Processing, where this method is suitable for retail products where the market is worldwide. Payments are made in real time with the verification process carried out right away. Second, is money transfer. This method is safer to receive payments from foreign consumers, but requires additional costs for consumers in the form of fees for money transfer service providers to send some money to other countries. Third, is Cash on Delivery, which is a payment method on the spot. This can only be done if consumers are in the same city as the service provider.

Based on the results of the study, it was found that all payment transactions still use bank transfers. If you use a marketplace like Tokopedia or BukaLapak, then what is provided is payment through a joint account. The buyer will transfer some money to the Marketplace account, then the order will be forwarded to the seller. After the seller has sent and the item has been received by the buyer, the seller will receive money from the marketplace as payment.

This method is not very sought after by the informant, one of which is because new money is obtained after the item is received by the buyer, even though the sales money is very much needed to buy raw materials for the next production. So that almost all informants prefer to sell through social media, where the buyer transfers money before the goods are sent by the seller. Apart from joint accounts and bank transfers, none of the informants want to sell through credit cards or other online payments, such as PayPal, this is still not familiar with the payment system.

One of the main problems lies in the costs for fabric production. None of the informants have successfully applied for loan assistance from banks, this is due to two things. First, in terms of regulation, assistance is only given to the head of the family, who in the policy context is the husband. Second, it is very difficult for these women to obtain capital assistance because
there are no collateralized assets. This is because the ownership of assets is fully controlled by men, so it is impossible to guarantee assets without the knowledge and permission of the man or husband. On the other hand, banks are generally only located in the city or sub-district center which is very far from their homes, not to mention the various administrative requirements as well as many letters that must be signed. This causes women to be reluctant to borrow from banks.

Apart from the bank, there are also microcredit providers, in this case the collectors (Aritenang et al., 2020; Suryadi et al., 2020). They generally provide assistance without any conditions, they come from house to house offering loans. However, the loan interest charged is far above the loan interest from the bank. In general, the loan interest is between 15-20% of the total loan. Even though it is very high, many women depend on this loan because the money is given directly, quickly, and without any conditions or administrative problems.

In many cases, when assistance is provided by the bank, the man or husband always cuts the assistance given by half, from which the funds are generally used to buy cigarettes or gamble. Meanwhile, when paying debts to the bank, the woman must pay in full, including the loan interest. To cut higher costs, these women choose to sell their products directly through social media, even though they still sell on e-commerce.

Another factor for the use of e-commerce is security. Security is a major problem in the application of electronic commerce to SMEs. It is important to maintain security during online business transactions from losses. This is due to the fact that information technology systems are also not immune from security threats, crime and loss of business information sensitivity; detrimental to the company's reputation or brand and loss of privacy because everyone can take information freely for certain purposes.

The final scope that must be considered in the use of electronic trading systems in SMEs is the government's participation because the government plays an important role in the process of developing electronic commerce to improve the economic welfare of a country. The government is obliged to ensure that there is adequate infrastructure so that the existing creative industries can run efficiently. Not only is the infrastructure available in terms of internet connection, but also physical infrastructure that supports the delivery of products from producers to consumers.

**Opportunity in Crisis?**

Then, what can we learn from the twelve weaving craftsmen from Sumba? One of the most interesting things is how they take advantage of the digital economic potential for their lives. If initially Sumba women only sell goods at markets not far from their homes, with the consequence that their products will only be bought by neighbors or neighbors from the next village. But with the marketplace and social media, their products can now reach more people.

Many economists emphasize that the world economic landscape is currently shifting, disrupted, by the development of digital technology. The development of one-by-one communication and internet technology has proven its ability to shake traditional patterns and economic models. The start-up unicorn company has been born and shifted the position of old entrepreneurs in the ranks of world billionaires (Setini et al., 2020; Yee Ong et al., 2020; Zhou & Johnston, 2020).

But again, the position of women in this new industry is still fairly minimal. In this era of digital technology that continues to grow, inequality between men and women is still struggling with the same thing. The digital world, or digital society (Setyowati & Fadah, 2018; Sidharta et al., 2019), which is currently developing on one side, opens up greater opportunities for the development of the digital industry to be entered equally, including for women. On the other
hand the digital world has also eroded at least 12.5% of the types of work that have existed in the previous era (We Are Social, 2020).

It is important to noted a change in the landscape of economic opportunities that had never existed before. Tokopedia, Bukalapak, Blibli and others have changed the image of society today about the market. Go-Jek and Grab changed the pattern of human mobilization to be more equal between transportation providers and users. RuangGuru, Zenius.net and the like have shaken the existence of conventional learning institutions. Not to mention Go-Pay, OVO, Grab-Pay, which further facilitates the payment system.

Indonesian President Joko Widodo even repeatedly stated that the industrial era was preceded by technological developments, changing the economic landscape of agriculture, logistics, manufacturing and others. In essence, economic opportunities in the digital era are wide open and do not at all ignore gender differences. Anyone who is able to master digital technology will become advanced in his economy.

The problem is how to prepare women in the digital era? We Are Social categorizes Indonesia into a country he calls a digital country break-out. Countries with low digitization scores but high levels of evolution. This condition according to them is the main attraction for investors. For them, the country in that category is still open to the possibility of strengthening the institutions that support and develop their innovations (We Are Social, 2020).

Citing data, until the end of 2017 Indonesia's e-commerce trade revenues reached USD $ 8.6 million. It is estimated that by 2022, our digital trading volume will reach USD $ 16.5 billion with a growth rate of 17.7% (Badan Ekonomi Kreatif, 2019). But the problem facing women in the digital age today is the digital skills gap. Often the digital gap is defined only as a measurement of the gap between one's access to computers and the internet, even though there is a real gap between women and men.

Another survey said internet penetration in Indonesia reached 50% for example did not describe the penetration specifically for women (We Are Social, 2021). Similarly, ownership data of smartphones and mobile phones. But in Facebook user data, the same survey shows lower female users than men. It is quite interesting that in terms of financial inclusion women have more credit cards than men, but women do fewer internet payments than men.

From this we can see how the digital era views women as consumers. Just as GDP economic statistics also look at women's contributions in terms of consumption. This condition is a challenge for women, including in Indonesia today. The digital economy field that is still going to develop will need to be filled by Indonesian women as active actors. The economic challenge of the digital world is creativity and always ready for change. Especially for women there is one more challenge, the digital gap that must be addressed immediately.

In the report of Business Profiles and Companies 16 Subsectors of Creative Economy Based on the 2016 Economic Census released by the Central Bureau of Statistics and the Creative Economy Agency, entrepreneurs in this sector are known to be dominated by female entrepreneurs of 54.96%. The leading sector of women's creative efforts is culinary and fashion (Badan Ekonomi Kreatif, 2019). But in other sectors such as visual communication, film, animation and video are still dominated by men. For creative matters, women's abilities have long been recognized by people in the world. Even in periods of economic crisis that occur in many countries, women are the most successful survivors (Cho et al., 2020; Yee Ong et al., 2020). But unfortunately, creativity in the digital economy era has not been touched by many women, including in Indonesia.

In terms of readiness for change, women are known to be the most prepared and fast adaptive to change (Fauzi et al., 2020; Khairunnisa & Noer, 2020; Rambu Babang & Rachmad Rinata, 2019; Zhou & Johnston, 2020). The refinement of taste that women have that sometimes traps him to choose compromise rather than competition. But it is not impossible for Indonesian
women to be the main actors of competition in the digital economy. Digital literacy is still a big problem in Indonesia. This problem occurs not only for men but also for women. Digital literacy, refers to the ability of individuals to find, evaluate, produce and communicate clear information through writing and other forms of communication on various digital platforms. In the situation of a large digital divide between women and men, digital literacy is increasingly difficult for women. This is a challenge for educational institutions in Indonesia.

Basic problems as mentioned above are a problem that must be dealt with close cooperation between the government and the business world. Providing developing opportunities for women to develop digital businesses on the one hand and on the other hand preparing young women with digital literacy and digital capabilities that are adequate for their future. Digital capabilities in a sense are not just abilities as users or consumers. But more than that is the ability to generate added value from the digital world. This step can be started from introducing girls to digital devices and inviting them to know more deeply about the digital devices used.

In terms of women's digital entrepreneurship development, there needs to be serious effort so that women can get access to capital that is as large as men (Noer & Madewanti, 2020; Suryadi et al., 2020). Greemen Bank's success stories that involve many women in lending need to be expanded to venture capital for women. To support this, women must be brave enough to get out of the pattern and old mindset. Women must dare to start a business no longer having equity from a small number of families, but from a financial institution with a greater measurable risk. Women must be more diligent to oversee the incubation of their business than to go to entrepreneurial and motivational seminars. Women must also have a mindset as the main breadwinner of the family with which, he will be able to survive in the business he built rather than leaving him on the grounds of marriage, having children and the like. Women must have the courage to take capital from angel and venture capital for their digital business rather than equity financing. Women must fight the gender stereotypes they face.

The success of women in winning competition in the digital economy will be able to overcome many other economic problems. Inequality in treatment of female workers, low wages, and gender-based discrimination that occur in various fields will be overcome if the women's mindset has also changed. Workers who are treated unequally become entrepreneurs who are able to contribute to the economy of their country.

CONCLUSION

Women and e-commerce are two sides of the same coin. E-commerce opens opportunities to empower women in the economic field. By cutting the chain of distribution of goods, weaver women can directly sell their products to consumers anywhere, regardless of distance and time. Fabrics woven in remote rural areas in Sumba can easily be sold and shipped to Canada. However, there are a number of main obstacles in the effort to open up opportunities for women to exploit the potential of e-commerce.

There are at least three main challenges: costs of production, distribution and access to financial services. These three things are the challenges faced by women weavers in their efforts to maintain the weaving tradition in Sumba. It is very important for the government to make appropriate and strategic interventions so that it can improve the economy of women in remote areas.

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