DIGITAL PLATFORMS AS PROVISIONS FOR ENERGIZING ENTREPRENEURSHIP IN SPICY FOOD BUSINESSES

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Submitted: 02-03-2025, Revised: 25-03-2025, Accepted: 12-04-2025

ABSTRACT

As prominent members of the developing digital entrepreneurial ecosystem in Indonesia, Micro-Small Enterprises (MSEs) should adapt and make the most out of the ubiquitous digital platforms available for managing business activities. Especially for those in the food business, digital marketing has played an important role to the development of MSEs performances. This research examines how spicy food MSEs are able to flourish without a formal marketing arm embedded in the organization. In particular, the main objectives of the study include to assess the role of digital marketing for MSEs and provide evidence on how adopting digital marketing would enhance entrepreneurial capabilities. Method employed for this study is a combination of three components, which are, preliminary desktop research, data mining, and descriptive analyses. Complementing quantitative and qualitative data from multiple sources was intended to overcome the challenges of obtaining MSE data by taking advantage of online databases and make use of available resources. Ratings provided by the users are determined to be representations for the MSEs performance, which are made available for the public. In addition, data shows the ability for MSEs to expand markets and access more customers using e-commerce platforms. Analyses presented in this article provide evidence of the vital role of adopting digital platforms in MSE marketing activities. Synergizing internal capabilities with the online ratings could snowball into obtaining good performance and sustainable competitive advantage. From an entrepreneurial point of view, analyses showed how digital marketing is the ultimate collaborative partner necessary for success.

Keywords: Micro-Small Enterprises, Social Media, E-commerce Platforms, Marketing Strategy, Value Chain.

1. INTRODUCTION

Digital technology has forever transformed the ecosystem and necessitate entrepreneurs to explore new ways of doing business. Analogous to studies in biology, entrepreneurial ecosystems emerged as a concept that encompass the core as the systemic conditions (entrepreneurs, leadership, finance, talent, knowledge and support) and the occurring interactions as the conditional framework (Stam & Spigel, 2018). Digitalization profoundly affects entrepreneurial ecosystems by, among others, allowing more fluid and less bounded processes (Nambisan, 2017) as well as fueling scalable innovations and unplanned changes (Zaheer et al., 2019). A digital entrepreneurial ecosystem offers a productive support system for entrepreneurs to implement new processes in the digital age (Bejjani et al., 2023). Consequently, more entrepreneurs must have a good comprehension of such changing circumstances and leverage from digitalization to acquire new competitive advantages.

As prominent members of the developing digital entrepreneurial ecosystem in Indonesia, Micro-Small Enterprises (MSEs) should adapt and make the most out of the ubiquitous digital platforms available for managing business activities. Converting conventional business processes to digital can improve performance as well as effectively facilitate internal and

external communications (Broccardo et al., 2024). Particularly for Micro Small Medium Enterprises (MSMEs), digitalization would enable reductions in market transaction costs, help integrate to global markets as well as provide greater access to strategic resources and innovation assets (OECD, 2021). One aspect of digitalization that can swiftly be adopted by MSEs is in using technology to manage sales, communicate with customers, improve customer experience and engagement. The term "digital selling" encompasses new methods of attracting customers, catering to individual preferences, conduct brand promotions and maintain customer relations so as to overall improve marketing effectiveness (Sudarsono & Yusuf, 2023). Digital marketing through proper use of public digital platforms has been shown to provide competitive advantages (Su et al., 2023).

Especially for those in the food business, digital marketing has played an important role to the development of MSEs performances. Digital platforms have promoted foodies and culinary enthusiasts to be food vloggers, commentators and reviewers. Growing numbers of media contents that provide food and restaurant reviews have proliferated in social media. In turn, viral clips or reviews on food vendors promote unknown businesses to be popular and thriving. Even though such contents may not necessarily be produced by the MSEs owners themselves, many have gained profits by leveraging off the popularity that follows viral social media contents. Researchers have long discovered that digital marketing is the most effective and efficient media for substantial increase in sales volume (Pradiani, 2017). As the number of social media users have continue to increase, adopting digital marketing has grown to be even more relevant for MSEs. Considering the potential of improving performance without the additional costs, digital marketing should be viewed as the perfect partner for building MSEs entrepreneurial capabilities.

Chili Based Foods

Chili is one of the most important ingredients in Indonesian culinary recipes. Consequently, the consistently high consumption volume is apparent in the inclusion of chili in home-cooked meals, street food and traditional food as well as local snacks. However, the price of chili often fluctuates so as to make sellers and producers that use chili in large numbers, must find ways to overcome this persistent challenge so as to remain consistent in providing spicy dishes at affordable prices.

From a different perspective, observations showed the rapidly increasing number of MSEs that offer spicy food as the main value proposition. Food stalls with specific menus such as "seblak" or spicy noodles have grown substantially in the West Java region. Such intriguing phenomenon warrants for management sciences investigations considering that the volatility of chili commodity price has not deter the emergence of MSEs that offer spicy dishes. Many of these emerging spicy menus gained avid followers and communities of spicy food fans, which appears to be accelerated by social media trends. In fact, viral spicy food contents lead to an influx of consumers to visit the trending food stalls which were previously unknown. Although fresh chili prices always fluctuate, the number of customers demanding for consistent quality food at stable prices persists and the MSEs are forced to resort to alternative means for minimizing costs. MSE owners claimed that increasing the price of their dishes, when chili prices are high, is not an option as they may lose customers. In turn, they tend to focus on lessening spending on costs that are not directly related to the product quality, such as marketing and promotion.

This research examines how spicy food MSEs are able to flourish without a formal marketing arm embedded in the organization. Based on the observed trends of viral food clips in social

media leading to high numbers of sales, the main argument posited is the conspicuous direct effect of digital platforms as the force that drives performance of spicy food MSEs. This study investigates the thriving MSEs that mainly sell chilibased food, namely, seblak and spicy noodles, spicy snacks, packaged sambal and chili oils. In particular, the main objectives of the study include to assess the role of digital marketing for MSEs and provide evidence on how adopting digital marketing would enhance entrepreneurship.

The Case of ChiliCo

This study is a follow up to a previous article that discussed MSME strategic entrepreneurship framework developed from the case of ChiliCo, an SME that produces ready-for-cooking ingredients (Zubaedah, 2024). Building off of the case study, focus of the literature review is in two areas, mainly, scholarly articles and reportages on how MSEs overcoming chili price fluctuations, and studies on the adoption of digital marketing in the MSE context.

In the case of ChiliCo (Zubaedah, 2022), the study found that the enterprise implemented a different business model by positioning itself between the upstream farmers and the consumers. Initially, ChiliCo implemented a simple business model of planting chili and selling fresh chilis to local MSEs in the surrounding area. When ChiliCo discovered that 3-day old chilis were unabsorbed by the market, the enterprise developed a modern processing facility to produce good quality cooking ingredients. Creating products with various herbs and spices, ChiliCo took advantage of the abundant unsold chilis in the markets and produce cooking ingredients that are rich with flavors and, most importantly, packed with heat. Starting with simple products such as dried chilis, chili powders and chili with added spices, the products quickly gain popularity by catering to the buyers' preferences, which are mostly spicy food MSEs in the West Java area. After some time, ChiliCo expanded the market by processing other herbs that the MSEs require for their original recipes, such as, turmeric and lime leaves. Eventually, the market expanded to not only include spicy food MSEs, but also those who make snacks and consumer products sold through such e-commerce platforms as Tokopedia and Shopee.

The analysis on ChiliCo demonstrated the pre-requisite of knowledge creation and orientation towards strategic entrepreneurship for MSMEs, particularly those who relies heavily on agricultural products (Zubaedah, 2016). Strategic Entrepreneurship (SE) encompass orientation towards exploitation of existing competitive advantages and exploring for new growth in a simultaneous manner (Ireland & Webb, 2007). Ensuring effective management of organizational resources towards both opportunity-seeking and advantage-seeking behavior requires the appropriate operational, structural and cultural arrangement (Ireland et al., 2003). The ChiliCo case study provided evidence that adopting entrepreneurial strategy formation necessitates knowledge creation capability so as to attain good performance (Zubaedah, 2024). Moreover, ChiliCo exemplifies a business that processes natural ingredients and able to demonstrates agility, attaining consistently good performance, despite the inherent complexities of bio commodities.

Food MSEs and Performance

Recently, small-scale businesses have been recognized for the ability to create broad employment opportunities and cultivation of entrepreneurship, which are central to developing economies (Maheshkar & Soni, 2021). MSEs operate with limited resources and tend to focus on cost leadership, which is a strategy that focuses on optimizing productions costs so as to sell to customers at low-prices (Porter, 1985). Based on the resource-based view on competitive advantage, a key resource that can be attributed to SMEs performance is cost management (Amir et al., 2016). Particularly for MSEs, reducing costs while strengthening their market

positioning becomes the main objective for implementing cost management (Hansen et al., 2007). Studies have found that SMEs in the UK prefer to use cash flows to monitor performance (Jarvis et al., 2000), while those in Japan and Malaysia have the proclivity to consistently adopt standard costing techniques to manage performance (Hopper et al., 1999 and (Ahmad, 2004). Rustan (2023) found that SMEs in Makassar, South Sulawesi, focus on quality costs, which lead to sales increases. Proper cost management is markedly principal for SMEs to ensure effective performance and promote growth.

Similarly for spicy food MSEs that are vulnerable to increases in chili prices, which can drive up production costs exponentially. Empirical studies have demonstrated that MSMEs would reduce consumption when chili prices rise (Mustakim & Yanti, 2022 and Agustina et al., 2023). Since the price of chili tend to make consumers restless, it is of high concern for government and businesses. Online news sites often publish articles to report this issue and highlight the impact on MSEs. A famous bottled sambal producer in Malang, East Java, had to produce a smaller number of bottles when the prices of chili, cooking oil and shallots, increased at the same time so as to reduce material costs without altering the already well-known recipe (Public Information Pemkot Malang, 2022). This is a common approach for MSEs as they would rather not increase sales price to remain competitive (Kompas.tv, 2021). Traditional food shops (or "warteg") deals with high chili prices by resorting to add other ingredients to enrich flavor and reduce the amount of chili used, diversify their sambal dishes as well as collaborate with suppliers to get the best prices (Hasiana, 2023). A food caterer in Bandung adds bott(Cahya & Christian, 2020)led sambal or use green chilis when the capsicum frutescens (the spiciest chili variant) price was high to ensure the food quality is sustained (Putra, 2024). When chili prices surge, food business owners are very much affected and resort to adjust the buying patterns or, otherwise, alter the recipes to minimize costs while maintaining quality and competitive advantage.

Digital Marketing for MSEs

Previous studies have found the importance of marketing capability, market orientation and entrepreneurial orientation for MSEs (Cahya & Christian, 2020 and Christian et al., 2021). Motivating growth for micro enterprises must be done incrementally and in a slow process, which requires such growth drivers as owners' motivation, expertise, access to resource and markets (Perren, 1999). As a consequence, MSMEs face distinct challenges when it comes to developing growth and need to seriously consider learning new ways to manage business by adopting technologies. Considering the changing competitive landscape, MSMEs should resort to using latest technologies in order to gain revenue and market expansion (Sudarsono & Yusuf, 2023). While small firms are less likely to implement digital practices, MSMEs tend to first initiate digitalizing administration and marketing functions (OECD, 2021).

Market pressures and organizational readiness are main drivers for adopting relevant technology to better explore opportunities through digital marketing with public platforms (Su et al., 2023). Digital marketing constitutes organizing all marketing activities, including communications, customer acquisition and promotion, utilizing sophisticated technologies (Sudarsono & Yusuf, 2023). Available technologies that can be utilized for marketing purposes not only encompass websites, email, databases and digital TV, but also include other emerging channels such as blogs, podcast and social networking sites (Mokodompit et al., 2023). Moreover, increasing customers and suppliers have proven to be effective with the support of e-commerce platforms (Kilay et al., 2022).

Many studies in different MSME contexts have provided evidence in the advantages of adopting digital marketing for improving performance and promoting growth. Home industries in Malang were able to significantly increase sales volume with the adoption of social media to market their products and reach new customers (Pradiani, 2017). Use of social media marketing has also provided performance improvements for MSMEs in Riau (Kesumahati & Lim, 2023). By opening official online stores in Tokopedia and Shopee, "Sambal Kaisar" was able to double the sales and reach customers all the way to Sulawesi despite having only a small production facility in Bengkayang Province West Kalimantan (Pontianak Post, 2023). In Banjarmasin, MSMEs that adopted digital marketing have gained performance improvements through ease of providing information, direct interactions with customers and expanding access to market (Jumriani et al., 2024). Similarly, MSMEs in Kendari, Southeast Sulawesi, have gained more online sales, market reach and customer brand awareness with the support of digital marketing (Husriadi et al., 2024). In addition to attaining improved profitability and performance, effective adoption of digital marketing would also provide long-term advantages for MSMEs. Digital marketing can enhance public's perceptions of the MSMEs' products so as to motivate further growth (Mokodompit et al., 2023). Therefore, enhancing capabilities for MSMEs to adopt digital platforms, including social media and e-commerce, is pertinent for business development and sustainability.

2. RESEARCH METHOD

Method employed for this study is a combination of three components, which are, preliminary desktop research, data mining, and descriptive analyses. Preliminary research encompassed a broad review of fluctuated chili prices and its impact to MSEs, trending stories on spicy food MSEs and previous studies related with MSE performance. Data collection includes limited field survey as well as data mining using search engines and e-commerce platforms. To address this study's objectives, multiple layers of descriptive analysis of the data collected will be combined with qualitative data obtained from preliminary research work as well as based on information from industry experts.

An innovative approach in data collection was conducted to overcome the main challenge in MSE research as to appropriately survey the large population of businesses and the widespread locations would require significant resources. Therefore, to ensure a thorough investigation, data analyzed were collected in four ways. First, field survey and interviews were conducted in a select modern and traditional markets to obtain information on fresh chili sales and customer buying behavior. This way, analysis would include first-hand information on how sellers and buyers behave towards chili price fluctuations. Second, data collection using Google search engine to generate a list of MSEs who specialized on selling seblak and spicy noodles. Listed based on their locations, analysis was conducted on food outlets with high ratings (4.0 and above) to provide evidence of the popularity and performance of these MSEs. Third data was collected from two e-commerce platforms, Tokopedia and Shopee, where listings were generated to represent the magnitude of businesses of spicy products, which included snacks, packaged sambal and chili oil, that are also rated 4.0 or higher. To enrich the analysis, the fourth source used in this study was qualitative data from previous ChiliCo case (Zubaedah, 2024) as well as from expert sources. Using this unique method, the analyses were aimed at examining the role of digital platforms to MSEs performance. Complementing quantitative and qualitative data from multiple sources was intended to overcome the challenges of obtaining MSE data by taking advantage of online databases and make use of available resources.

3. RESULTS AND DISCUSSIONS

In the next sections, analysis on the collected data will be presented in four separate sections. Moreover, discussions are aimed at providing a comprehensive overview of the adoption of digital marketing by spicy food MSEs.

Fresh Chili Sales

Field surveys were conducted at three fresh markets in North Jakarta and one in West Jakarta, between the period of 18 – 24 September 2024. Data collected showed that different types of chilies were priced differently, with slight distinctions between one market and the other. Most of the buyers at the markets are homemakers who purchase different types of chilis at reasonable small quantities, except for Pasar Jalur Kampung Gusti in North Jakarta, which also have buyers of large quantities for reselling. A summary of the survey and interview conducted at the markets are presented in Table 1.

Interviews with the market vendors confirmed the information obtained from online and offline sources on the fluctuations of chili prices. Chili prices tend to increase close to the holiday periods, such as during Ramadhan and towards the end of the year, or when there were harvesting issues that lead to lower volume of supplies. Buyers would resort to purchasing chilies in less amounts when prices are high or only purchasing the lower priced chilies, such as curly chilies and ground chilies. On the other hand, during agricultural harvesting periods when chili supplies are abundant, unsold fresh chilies are dried or grounded, and often has to be thrown out due to the poor quality. Consumers tend to not prefer to buy chilies over three days old as the color and quality are perceived to be poor. This first-hand information provides evidence of the prevailing issue of commodities price fluctuations, which are closely related to the agricultural industry.

Table 1. Summary of Surveys at Four Markets.

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Market	Location	Chili Pr	rices (In Rp 000/kg)	Main Buyers			
Pasar Rajawali –		•	Red Chilies 30-50	Households			
Kalimati	Pademangan, North Jakarta	•	Green Chilies 30-50				
		•	Capsicum f (spicy) 30-50				
Pasar Jalur Kampung Gusti	Il Vn Gusti	•	Red, Green and Capsicum f	Households,			
	Jl. Kp Gusti, Nort Jakarta	chilies 4	40	resellers			
		•	Curly Chilies 25-35				
Pasar Teluk Gong		•	Green Capsicum f 45-55	Households			
	Jl. Teluk Gong Raya, North	•	Red Capsicum f 50 -55				
	Jakarta	•	Curly Chilies 35-40				
		•	Ground Chilies (mixed) 30				
Pasar Cengkareng	Cengkareng, West Jakarta	•	Capsicum f 45	Households			
		•	Curly Chilies 25				

Spicy Food Outlets

Using the Google search engine, listings of MSEs offering spicy food was generated based on location. Focusing the search to seblak and spicy noodle shops, the targeted search provided a list of MSEs in DK Jakarta (North, Central, West, South and East Jakarta). and 14 high population cities in West Java Province (Bandung, Bogor, Ciamis, Cianjur, Cimahi, Cirebon, Depok, Garut, Indramayu, Karawang, Majalengka, Subang, Sukabumi, and Tasikmalaya). Since the purpose of this research was to evaluate the effects of digital marketing on MSEs, the search was only aimed at MSEs data that included ratings. Ratings provided by the users are determined to be representations for the MSEs performance, which are made available for

the public. Although each search is filtered based on ratings, the inquiry provided over 100 rows of SME data per location. Collected information was only on SMEs with posted review ratings of 4.0 and above, which was a total of 409 seblak shops and 257 spicy noodles shops (summarized MSE data is presented in Table 2).

Seblak is a savory and spicy broth-based dish, which contains boiled crackers, meatballs, dumplings, noodles and a plethora variety of alternative ingredients. Originated from Bandung West Java, this dish has just recently become more popular where each shop would have its own signature soup broth and commonly have a fiery chili-based flavor. In particular, during the COVID-19 pandemic, opening up a seblak shop became a feasible solution to economically survive without leaving the house. Entrepreneurs opened up shops, often at their porches or home garages and cooking at their home kitchens, then sell their own seblak recipes. Fueled by social media contents that often goes viral, the dish became increasingly popular and new shops offering seblak are popping up in many locations throughout West Java. Avid spicy food fans create rave reviews contents and influence consumers to have this dish. Consequently, even more seblak-related contents were made and spread the information to an expanded market. Such phenomenon provides the grounds for the higher number of seblak shop data collected compared with the spicy noodle shops. In addition, the proliferation of seblak shops is evidently driven by social media with the predominantly gen-z users.

Table 2. Spicy Food Outlets

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	Seblak	Seblak (Average Price Rp15,000)			Spicy Noodles (Average Price			
					Rp20,000	0)		
Location	Number of	Ratings	Est. Revenue (in	Number of	Ratings	Est. Revenue		
	Outlets		Rp 000)**	Outlets		(in Rp 000)**		
North Jakarta	79	4.1 - 5.0	35,550	20	4.1 - 5.0	12,000		
Central Jakarta	48	4.1 - 5.0	21,600	20	4.4 - 5.0	12,000		
West Jakarta	47	4.0 - 5.0	21,150	27	4.0 - 5.0	16,200		
South Jakarta	40	4.1 - 5.0	18,000	35	4.0 - 5.0	21,000		
East Jakarta	45	4.2 - 5.0	20,250	32	4.0 - 5.0	19,200		
West Java*	139	4.1 - 5.0	62,550	123	4.0 - 5.0	73,800		
	398		179,100	257		154,200		
Rp 000 / year			2,149,200			1,850,400		
Rp 000/ outlet/ year			5,400			7,200		

^{*}Note: Include 14 cities in West Java

Compared with seblak, the average price of spicy noodles is slightly higher. Aside from the similarity of including chilies and spices in the broth or sauce, requirements in making spicy noodles are very different with seblak. Making spicy noodles menus have more complexities as it requires the use of ingredients that are slightly more costly compared to seblak. Hence, data showed that on average the price of seblak is Rp15,000 per bowl while spicy noodles is Rp20,000 per bowl. If we assume that each shop listed during this research sells one bowl per day, or 30 transactions per month per shop, the estimated revenue generated amounted to Rp2.2 billion per year for seblak and Rp1.85 billion per year for spicy noodles. Considering the sample MSEs are based on those rated 4.0 and above, the assumptions appear to be reasonable and provides conservative estimates. Moreover, these estimates represent the magnitude of business proliferated by social media. In spite of the chili price dynamics, digital platforms allow for these MSEs to maintain steady prices and gain more sales.

^{**}Assumption: 30 transactions per month x average price

Spicy Food Products

E-commerce platforms allow for sellers to easily organize their own online stores and facilitates buyers to access more variety of products at reasonable prices. Exacerbated by the COVID-19 pandemic, number of e-commerce platform users have increased exponentially. With the merge of Tik Tok Shop and Tokopedia, two of the most widely used e-commerce platforms are Tokopedia and Shopee. Analyzing selected spicy food products offered in Tokopedia and Shopee allow for gathering insights on how MSEs are growing and gaining more popularity with the support of the platforms. Searching for three main products, namely, spicy snacks, packaged sambal and chili oil, product listings were generated to evaluate how many products have been rated 4.0 and above. Each inquiry provided an over 1,000 products in spite of the location and ratings filters. As presented in Table 3, the estimated number of products that came up for snacks, sambal and chili oil are 11,624, 23,997 and 10,711, respectively. These figures indicate that these spicy products are highly in demand and market transactions were facilitated by e-commerce platforms.

Table 3. Number of Product Listed: Tokopedia and Shopee

	Snacks		Sambal		Chili oil		
	Products with	Number of Products with Number of			Products with	Number of	
	ratings > 4	Stores Listed	ratings > 4	Stores Listed	ratings > 4	Stores Listed	
North Jakarta	1,094	20	2,478	15	1,132	20	
Central Jakarta	1,067	15	1,150	15	1,045	20	
West Jakarta	1,235	20	4,413	15	1,227	20	
South Jakarta	1,070	20	2,722	15	1,126	20	
East Jakarta	1,084	20	2,532	15	1,047	20	
West Java*	6,074	159	10,702	122	5,134	118	
Total	11,624	254	23,997	197	10,711	218	

^{*}Note: Include 12 cities in West Java

For further analysis, listings on a set of MSEs were developed for those located in DK Jakarta (North, Central, East, South and West Jakarta) and 12 cities in West Java (Bandung, Bogor, Bekasi, Cianjur, Cirebon, Depok, Garut, Indramayu, Karawang, Sukabumi, Subang and Tasikmalaya). In addition to location, more detailed data on a set of the online stores that sell the products included, number of products, store reviews, product reviews, number of products in the store, number of products sold, price ranges and the year when the store became a member of the platform. Specifically, more detailed data were collected for a sample of up to 10 stores per location.

As shown in Table 4, the total number of online stores data collected are 252, 199 and 219 for snacks, sambal and chili oil, respectively. In terms of years on the platform, MSEs with the longest memberships have operated online stores in Tokopedia since 2011, while on Shopee the oldest membership year is 2015. The transactions columns contain number of one particular product sold by the store over the course of its platform membership. For example, 20 stores in North Jakarta sold their most popular spicy snack to 58,644 buyers per year. Based on the number of transactions, snacks dominate the market where it reaches a total of 746,361 transactions per year, which is almost twice the number of annual transactions of packaged sambal and almost 7 times more than chili oil. Regardless, the high number of transactions for these product categories demonstrate the great demands for spicy products and showed the central role of ecommerce platforms to promote sales. In addition, data shows the ability for MSEs to swiftly expand markets and access more customers using e-commerce platforms.

Numbers of estimated revenue reported in Table 4 were calculated based on the estimated average price multiplied by the number of transactions in one year for the particular product under study. Estimated revenue for each store is only based on one particular product and the quantity sold, and therefore, the figures presented offer a conservative amount. For example, an online store at Shopee that sells snacks in Garut West Java called "Seblakrafael74328" sells instant seblak, which are snacks developed based on the seblak dish, at an average price range of Rp20,000 to Rp25,000 per item. The online data showed the number of transactions of over 10,000 for this particular item. Taking the middle price point of Rp 22,500, then multiplying it by 10,000 transactions resulted in a total revenue of Rp225 million per year. Given that this store has only started selling on Shopee since 2023, this exemplifies a successful MSE. Brief research into this brand showed that this relatively new product is owned by Rafael Tan, an influencer who used to be in an Indonesian boyband member. What began as a way to keep busy after his retirement from the entertainment industry, the online store went viral in 2023 due to the unique seblak snacks that can easily be prepared and enjoyed at home. Accordingly, this case provided evidence of the strength of digital platforms for developing MSE business.

Table 4. Estimated Transactions

	Snacks (Rp21,000 - 27,000)			Sambal (Sambal (Rp30,000 - 34,000)			Chili Oil (Rp28,000-35,000)		
Location	Number of Stores	Transactions	Est. Revenue (in Rp 000)	Number of Stores	Transactions	Est. Revenue (in Rp 000)	Number of Stores	Transactions	Est. Revenue (in Rp 000)	
North Jakarta	20	52,337	238,798	16	30,386	329,772	20	20,487	103,463	
Central Jakarta	15	34,830	226,712	15	22,881	167,585	20	3,745	21,676	
West Jakarta	21	68,774	595,486	16	189,729	1,340,841	20	11,843	106,892	
South Jakarta	20	63,244	239,563	15	26,979	206,602	20	12,964	92,250	
East Jakarta	15	57,999	261,997	15	46,488	344,639	20	8,386	62,567	
West Java*	161	469,177	2,704,873	122	108,999	770,726	119	100,056	612,694	
Total	252	746,361	4,267,429	199	425,462	3,160,166	219	157,481	999,542	
Average / store**		2,962	16,934		2,138	15,880		719	4,564	

^{*}Note: Include 12 cities in West Java

Furthermore, the estimated figures showed the total of Rp4.2 billion per year for snacks, Rp3.1 billion per year for packaged sambal and almost Rp1 billion per year for chili oil. Such figures not only represent the growing demands of chili-based food, but also the business size for of these types of products. Considering the estimates are only for about 20% of total online MSEs located in DK Jakarta and selected cities in West Java, through simple extrapolation actual size of the business would be about five times the total estimated revenue figures.

Revisiting Chili.Co

As discussed in Zubaedah (Zubaedah, 2024), ChiliCo initiated its processing facilities based on a thorough environmental scanning of the chili supplies and consumption at the time. In addition to acquiring information on the abundance of chilies that are not absorbed by the market, ChiliCo also observed the proliferation of spicy food MSEs particularly for young adult consumers. The rise in number of viral clips showcasing spicy food have attracted many gen Z-ers to acquire the spicy taste buds and, correspondingly, motivate entrepreneurs to capture the booming trends. Based on this preliminary study, ChiliCo embarked upon developing a large-scale processing facility and build the right capabilities for creating ready-for-cooking spices. ChiliCo also worked closely with spicy food MSEs and developed custom-made spices.

^{**}Estimated total revenue / total number of transactions

The consistently good quality products, affordable prices and at consistent quality has allowed the MSEs ChiliCo served to flourish. Despite the fluctuations of chili prices, MSEs can procure custom-made ready-for cooking ingredients at a steady cost.

4. CONCLUSIONS AND SUGGESTIONS

Development of the digital entrepreneurial ecosystem has broadened the opportunities for MSEs to develop their businesses. Use of digital marketing through the various platforms provide means for MSEs to expand sales and motivate growth. Analyses presented in this article provide evidence of the vital role of adopting digital platforms in MSE marketing activities. Despite the challenges arising from price and supply fluctuations of chilies, MSEs are thriving. This research found that Google ratings of the spicy food shops exemplify a form of digital marketing that MSEs can exploit for growth. Also, research findings imply the direct impact of social media where a large portion of the users are gen-Zs. Using the already available e-commerce platforms offer a cost leadership solution for MSE to increase sales, expand the customer base and develop the business. Similarly, the ratings function already built-into the e-commerce platforms also serve to achieve MSEs' marketing objectives. Synergizing internal capabilities with the online ratings could snowball into obtaining good performance and sustainable competitive advantage.

Moreover, the results of this study demonstrate the changes in the entrepreneurial approach for MSEs who view digital platforms as tools of performance improvements. Realizing the significance of an effective marketing function has enhance MSE abilities to adapt and address the growing gen-Z demands. In addition, the emergence of such enterprise as ChiliCo, provides evidence of the entrepreneurial response to the growing MSEs for chili-based products and indicates the adjusted value chain of the spicy food industry.

Scope of this study is a sample of MSEs based in DK Jakarta and few cities in West Java, which represent only a small portion of the entire MSE population. Future studies should include surveys to MSEs in more locations. Furthermore, the nominal figures presented in this article are based on estimates, which warrants for future research and further validations. However, this study contributes to the literature of MSE development and performance as well as MSE adoption of digital marketing. For practitioners, this study offers evidence of the centrality of digital marketing. More importantly, results show that MSEs must be more digital savvy and make use of social media marketing in order to effectively adapt to novel business patterns.

From an entrepreneurial point of view, analyses showed how digital marketing is the ultimate collaborative partner necessary for success. Considering the environmental dynamics faced by MSEs, entrepreneurs need to realize that today's business are organized in a different manner. In fact, entrepreneurs need to embrace such changes and adopt the appropriate technology as well as adjust to the changing value chain. When the MSE's marketing function is limited, digital platforms provide a cost-effective solution and allow for the organization to operate accordingly. Hence, digital marketing offers a way for the MSEs to be independent entrepreneurs with the ability to manage their own organizations effectively.

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