

An Adoption of Digital Marketing to Analyze Technology (DMT) Motivation: A Case Study of Micro-Enterprises in Yogyakarta City, Indonesia

Helen Dian Fridayani, Li-Chun Chiang, Kuang-Ting Tai

Abstract— Most micro-enterprise managers/owners in Indonesia, and Yogyakarta City, in particular, did not view adopting Digital Marketing Technology (DMT) as crucial for business before the Covid-19 outbreak. Many consider it a managerial support or operational activities requirement rather than a tactical or strategic tool. Even though most studies focus on large enterprises, the results of several research may not apply to micro-enterprises. This demonstrates the carelessness of the peculiarities of micro-enterprises in their thinking without taking into account the micro-enterprise value inherent in this tool in terms of assisting its use as a strategy tool and digitization as a prerequisite for managerial activity. In light of this, the digitization of micro-enterprises is an uninvestigated issue. The characteristics that specifically encourage the value that micro businesses attach to these applications, resulting in constant uptake and usage, are, however, less thoroughly examined in the research marketing application in micro-enterprises in Indonesia. Therefore, it requires thoroughly investigating the variables that determine digital value. This study used unstructured interviews with 22 micro-enterprises that were carefully selected from databases and supported by a technology, organization, and environmental factors (TOE) framework. This study identifies several crucial success elements that foster the value of micro-enterprises digital marketing technology (DMT) use. This study will be significant for academics and practitioners because it raises knowledge of the DMT adoption framework, which is crucial for DMT adoption, and it helps cut down on the resources needed to find information on how to support DMT adoption by microenterprises.

Index Terms— Digital Marketing Technology (DMT), Micro-enterprises, Digitalization, TOE Framework.

I. INTRODUCTION

Micro enterprises (MIEs) have a significant impact on the economic development of this nation, due to the dominance of microbusinesses in Indonesia, which are followed by small and medium businesses [1]. In the case of the Corona Virus Disease (COVID-19) outbreak occurrence, it is clear that many business owners have been negatively impacted by the economic downturn. As a result, MIEs must speed up the adoption of new technologies in order to compete in a cutthroat market [2][3][4][5][6].

Helen Dian Fridayani, Li-Chun Chiang and Kuang-Ting Tai, Department of Political Science, National Cheng Kung University, Taiwan

Consequently, firms are using digitalization to develop their online presence. With the help of digitization, marketing and other corporate operations can be carried out virtually.

Digitalization is a rapidly expanding trend at a time when the COVID-19 pandemic is causing an emergency [7][8][9]. Despite the truth, many businesses today rely heavily on their digital capabilities to succeed. To improve the environment and create new ecosystems, even the government is promoting digital innovation and cutting-edge technologies [10]. Since they affect business performance and are often driven by senior management who cannot accept the risk of failure, new technologies are frequently significant strategic investments; nonetheless, making such investments is still tricky. The fact that MIEs are less likely to accept foreign technologies that cannot be managed and controlled correctly due to low resources could be another factor [11].

Accordingly, this presents a chance to utilize regular encounters and knowledge sharing in the value chain. Direct marketing is fueled by digital marketing technology (DMT), which also brings buyers and sellers closer together [12][13]. Customers may place orders online and through mobile applications without interacting in person or going through conventional middlemen. Numerous platforms that enable value creation and innovation in business activities targeted at the self-employed, small business, and businessmen have emerged as a result of the digitalization of business operations [14][15][16].

The digitalization of MIEs has been given top priority by many local governments in Indonesia, including Yogyakarta City and other stakeholders [17][18][19][20]. Actually, even before the COVID-19 outbreak, Indonesia had begun to digitize MSMEs (Micro, Small, and Medium Enterprises). To boost MSMEs' long-term competitiveness in the digital economy, the nation created programs such 2018 Making Indonesia 4.0 Roadmap, the 2019 E-Commerce Roadmap, and the 2020 Go Digital Vision [21]. The Indonesian government has worked with the GrabMerchant Grab Indonesia mobile app, a one-stop service platform for MSMEs in the food and beverage industry, to help MSMEs in digitizing during the pandemic. Similar to this, social media platforms like Tik Tok, Instagram, and Tokopedia have introduced new MSMEs-specific advertising options. Yogyakarta City then makes an effort to make it easier for business owners, particularly micro-businesses, to sell their items online namely Sibakul Joga.

Building competitive advantage in the context of satisfying customer wants, producing customer value, and bolstering developer-customer contacts and interactional ties through digital distribution channels are all part of the concept of digital and interactive marketing. Digital marketing Technology (DMT) focuses on both internet- and non-internet-based marketing activities as well as digital distribution channels. It uses platforms, including the internet, email, and wireless media, to link companies with their clients and promote or serve them [22][23][18]. As a result of the dependence of their business models and operations on DMT applications, most large enterprises adopt them. MIEs are still determining the advantages of and when, how, and how much to embrace digital technology in light of its emergence [25][26][27]. Government assistance programs through legislative measures, like funding programs and/or innovation centers, have encouraged the adoption of contemporary technology among MIEs in the economies [28].

Given that DMT adoption significantly affects the business experience, MIEs require assistance in understanding the value of digital marketing in the context of its level of trust and relevance and the elements that shape its value. In order to develop well-informed strategies and/or tactics, this study offers a complete exploration of the variables that limit and/or enable the importance of micro-businesses to link digital marketing apps. This paper is organized as follows: the relevant literature; theoretical model assertions; methodologies, approaches, and results; and conclusions.

II. THEORETICAL FRAMEWORK

Why Micro-Enterprises should adopt Digital Marketing Technology?

A marketing effort known as "digital marketing" uses electronic devices (the internet and other digital interaction channels) to spread promotional messages [29][30][31]. The internet and other digital platforms for presenting and promoting products and services is a relatively new development in marketing. These platforms include computers, tablets, mobile phones (with apps like WhatsApp, Instagram, Google, Twitter, Facebook, Messenger, YouTube, Zoom, and others), email, and content marketing [32][16]. The MIEs must adhere to several environmental regulations and requirements under COVID-19 pressure. Then, MIEs have mandated ecological norms and controls. According to institutional theory, MIEs' environmental protections and legislative requirements will be shaped by coercive pressure. Numerous writers have documented how coercive forces impact MIEs' ecological performance [15]. The government enforces these mandatory laws and norms. MIEs should be subject to these rules, with consequences for violations, even during the pandemic [33].

The Technology Organization Environment (TOE) Framework

Tornatzky and Fleisher developed the TOE framework (technology, organization, and environment) (1990). It describes the variables that affect technology adoption and its potential. TOE refers to the procedure businesses accept and

apply technical advancements influenced by technological, organizational, and environmental contexts. Three influencing variables need to be seen in the three keywords that are crucial when someone makes a decision: technical developments, organizational conditions, business and organizational reconfiguration, and industrial environment [34][35][36]. Technological development inside the TOE framework presents the technologies available to an organization. The organizational context specifies the organizational characteristics, whereas the environmental context depicts the business environment, which comprises the industry, rivals, rules, and connections to the government. These are extrinsic elements that, following [36], may both constrain and provide opportunities for technological advancement. TOE's disadvantage is that it assumes that large organizations, where customers are more likely to be satisfied and file fewer complaints, will implement the model than MIEs [34][36][37].

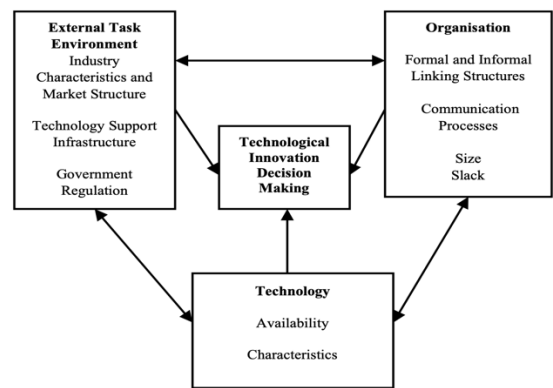


Fig 1. TOE Framework

Source: Bryan & Zuva, 2021.

In any case, Sugandini, Irhas Effendi, et al. (2020) asserts that they anticipate a non-exclusive arrangement of components in preparation for potential adoption. The framework suggests that an organization should be consistent with its environment and its needs and that both internal and external elements, including the environment, the organization's size, and its strategy, affect how strong the organization is [34][36][39].

III. RESEARCH METHOD

This study employs qualitative and inductive methodologies to give more specific, personal, and in-depth narrative information rather than statistical generalizations. The unit of analysis is the micro-enterprises at various (individual) levels; purposive sampling was utilized to identify the actual opinions and experiences of micro-enterprises on the topic. The City of Yogyakarta is the emphasis, and micro-enterprise owners come from various industries, including the food industry, the creative industry, fashion, the agricultural industry, and wholesale and retail commerce. Micro-enterprises that have used one or more digital marketing tools over the past two years are precisely among the participants. Qualitative investigations are most suited for comprehending expert opinions and gaining a deeper understanding. As a result, this study offers advice to digital entrepreneurs working in

challenging situations like COVID-19. Here are the major study participants and the company profile.

TABLE I. MAJOR STUDY PARTICIPANTS AND THE COMPANY PROFILE

Participants	Company Size	Sector	Status
P1	4	Culinary	Owner
P2	1	Culinary	Owner
P3	5	Culinary	Owner
P4	8	Fashion	Owner
P5	6	Fashion	Owner
P6	3	Agricultural	Owner
P7	5	Agricultural	Owner
P8	7	Wholesale and retail trade business	Owner
P9	5	Wholesale and retail trade business	Owner
P10	7	Wholesale and retail trade business	Owner
P11	3	Culinary	Owner
P12	5	Creative Industry	Owner
P13	7	Creative Industry	Owner
P14	6	Fashion	Owner
P15	9	Fashion	Owner
P16	8	Wholesale and retail trade business	Owner
P17	3	Culinary	Owner
P18	4	Culinary	Owner
P19	3	Creative Industry	Owner
P20	5	Fashion	Owner
P21	8	Culinary	Owner
P22	7	Creative Industry	Owner

Source: Process by authors.

IV. RESULTS AND DISCUSSION

4.1. Data Analysis

The topic analysis used in this study is theory-driven. Since the code is derived from the TOE framework and the impact is discovered empirically, this technique was chosen. The code name and explanation are highlighted in Table 1 to help with the coding and description of the data and to understand each code's attributes better.

TABLE II. DESCRIPTION OF CODES

Technology	Make the micro-enterprises have long-term functional capacity, integration capacity, and expansion capacity
Organization	Make the micro-enterprises have collective capability and collaborative experience
Environment	Make the micro-enterprises easy to have adaptive training, doing service delivery, and customer fulfillment

Source: Process by authors.

4.2. Technology

The first aspect, long-term functional capacity, describes how much DMT aids a company in fulfilling its long-term commitments [40][41][37]. Microbusinesses have financial constraints as a result of their ongoing struggles to be financially viable and sustainable [36]. As a result, even though DMT is very inexpensive, it can still be adopted. As mentioned by the interviewees:

"We can already observe the effectiveness of digital marketing. Will it produce the same results? Services in comparison to big businesses over huge distances? If not, we shall give it a higher value and use it (P8)(P10)(P15)(16)."

"How much we value digital marketing depends on how

much it helps our business (P1)(P6)(P3)(P20)."

Since [34][39] assumes that consistency is increased when the application can integrate into existing settings, the degree to which DM devices consistently adapt to the incumbent technology used by the company is defined as integration capacity. Participants concur that MIEs value DM applications that seamlessly adapt to what they need that is already present in the organization. Then, about expansion capacity, the analysis results demonstrate that microenterprises highly value flexible marketing tools that can be seamlessly integrated with constantly-evolving features. Any digital marketing tool's expansion capability has been noted to support business and process innovation. It manages costs and adopts brand-new technology [36].

4.3. Organization

The ability of micro-enterprises (MIEs) to comprehend and take into account the opinions and efforts of the majority of their staff through open contact is known as the collective capability [34][38][36]. It is believed that microbusiness owners' perspectives on digital marketing may differ due to disparities in knowledge acquisition and social contexts. Acknowledge by participants as follows:

"As a micro company, we appreciate new apps, even more, when our entire workforce evaluates them to see if they can assist us in achieving our shared objectives. We can either alter it or disregard it; we need to be sure. However, we frequently use the product (P4)(P19)(P22)."

"Everyone tends to respect the decisions taken here since they are the result of our collaborative work and because we are all participating in them (P2)(P9)."

When knowledge is widely known, efficiency increases, and everyone benefits and understands something. Shared meaning is crucial, and how it moves among different organizational levels affects the values that are ingrained in the technology [42][43][36][37]. Businesses frequently form extended partnerships to develop and capitalize on integrated competitive advantages [38]. The results in a collaborative experience, which illustrates the extent to which organizations are committed to working together to solve problems in order to get comparative cost advantages. The results show, however, that despite IT applications rarely assisting them in understanding their trading partners, the majority of micro-enterprises need to collaborate [35][44]. Participants' observations imply that greater importance is given to digital marketing tools when promoting collaboration between work groups.

"What we already have begun doing right now is collaborating with other businesses and governments that deal with this item. The value we assign to a product improves when micro businesses working in related fields are involved in its acquisition(P4)(P7)(P14)(P21)."

This is in line with previous research that discovered enterprise initiatives and cooperative efforts aid IT adoption decisions [38][36][44][39][37][45].

4.3. Environment

Adaptive training refers to a manager's capacity to swiftly pick up new information and change their approach to it. Owners and employees are taught how to offer DMT value for business development through adaptive training. According to the result, micro-enterprises choose new applications that are straightforward and provide simplicity of use without requiring extensive training.

"We would appreciate an app that is simple to modify after mentoring (P4)(P5)(P12)(P18)."

"We should make sure that the application is always simple to use at first (P11)(P13)."

Most MIEs managers reportedly lack the patience and commitment to learning about DMT because they think that such cutting-edge technology takes up too much of their time. In other words, MSMEs value new apps more when they do not require significant resources to master and comprehend them. The ability of DMT to advance company activities skillfully and profitably is defined by its service delivery. DMT would be highly valued if the information shared is reliable and consistent, enhances daily operations, and aids clients in making quick decisions in the present.

This is in line with previous studies that support the dependability and effectiveness of service delivery as a means of encouraging potential customers to become true users [34][38][36][44][39][37][45][46]. Customer fulfillment characterizes the perceived happiness received from utilizing DM devices, keeping in mind that asserts that the customer is king and that the significance values innovative applications that assist them to improve market shares and market positioning [37][46]. Any technology's characteristics play a big role in decision-making and are crucial to the success of the promoter if they help attract, keep, and meet the needs of customers.

V. CONCLUSION

In order to obtain new and deeper insights on how the devices can be deployed best over time amid the complicated and dynamic environment, micro-enterprises have practically thought about what method to employ when implementing digital marketing tools that will be valuable to them. The TOE framework is realistically significant to professionals who make ongoing business decisions and endeavor to create frameworks for IT applications. Micro firms may benefit from the proposed conceptual framework by using it to gain a deeper understanding of the variables that could influence the values they place on digital marketing applications. Such knowledge could help MIEs spread the word about the necessity, benefit, and application of these tools in order to avoid such problems in the future.

Since the study is qualitative, additional validation of the research design, data collection and management, analysis, and management of the extensive raw data involved may be necessary. The grasp of alternatives and insights into the variables influencing the use of digital marketing technologies may as a result be limited. As a result, techniques like the quantitative approach and mix-method may be used to further validate the results. Additionally, because the study only interviewed 22 participants which means a very small number it

may be challenging to generalize the findings and the framework in some situations. It is recommended that more research use different methods to evaluate, confirm, and validate the framework's conclusions among a larger population.

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Helen Dian Fridayani was born in Bogor, Indonesia on December 2, 1994. Completed Bachelor Degree in Government Affairs and Administration at Universitas Muhammadiyah Yogyakarta, Indonesia, in 2017, obtained a Master's degree in 2018 at Master of Government Affairs and Administration at Universitas Muhammadiyah Yogyakarta, Indonesia, and is currently studying Doctoral Program at Political Science Department, National Cheng Kung University, Taiwan (2019- Now).

In 2022-2023 Helen was a research assistant in the International Cooperation Research under Prof. Chiang's Supervisor. The focus of Her research interests is in ICT Government, primarily majoring in digital policy, local government, and also in public policy. Some articles published in 2022, such as Strengthening the Capacity of Government Apparatus Resources in Supporting Micro Enterprises to "Go Digital" in the Special Region of Yogyakarta (United Kingdom, *Journal of European Journal of Humanities and Social Sciences* 2 (2), 25-35, 2022), and Local Governments' Strategy on the Sustainability of Micro Enterprises Amidst the Uncertainty of the Covid-19 Pandemic: SWOT Analysis (Thailand, *Local Administration Journal* 15 (2), 2022).

Helen Dian Fridayani won the dissertation writing award by the Ministry of Science and Technology, Taiwan, with the topic on Micro-enterprises Digitalization. Moreover, Helen was honored to attend the International Conference in USA: Society, Cybernetics and Informatics: IMSCI 2022, Florida from the Ministry of Science and Technology, Taiwan.



Prof. Li-Chun Chiang is a Professor at the Institute of Political Economy, Department of Political Science, National Cheng Kung University, Taiwan. She got a Ph.D. Degree from the Institute of Political Science, University of Southern California, USA (1998). Her research interest is in the internet and advanced information technologies in the public sector. Her previous research has addressed the associated problems with open government and transparency.

Prof. Chiang is a member of the Taiwan E-Governance Research Center, TEG (2008-Now). She got an award from the National Cheng Kung University as an excellent teacher (2016). Also, she is the reviewer and editor in several International journals such as the *Journal of Information Security (JIS)*, *US*., *Political Science*, and *Public Opinion*.



Dr. Kuang-Ting Tai is an Assistant Professor of Public Administration joining NSU in 2021. He holds a doctoral degree in Public Administration from Rutgers University-Newark.

Kuang-Ting's research interests mainly focus on the applications of advanced information technologies in the public sector with the specific purpose to examine how information technologies can reshape the interface between the public and government. His prior studies have addressed the related issues regarding transparency, e-participation, and open government.

Dr. Tai's research can be found in *Public Management Review* or *Government Information Quarterly*. In addition, he also served as a reviewer for a number of journals, such as *Public Administration Review*, *Public Management Review*, *International Public Management Journal*, and *Journal of Urban Affairs*.