



The Path to Success:

How Women-owned Businesses Transform in the Era of Digitalization

Lessons from Indonesia



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As co-founder of the CDU and the first Chancellor of the Federal Republic of Germany, Konrad Adenauer (1876-1967) united Christian-social, conservative and liberal traditions. His name is synonymous with the democratic reconstruction of Germany, the firm alignment of foreign policy with the trans-Atlantic community of values, the vision of a unified Europe and an orientation towards the social market economy. His intellectual heritage continues to serve both as our aim as well as our obligation today. In our European and international cooperation efforts, we work for people to be able to live self-determined lives in freedom and dignity. We make a contribution underpinned by values to help Germany meet its growing responsibilities throughout the world.

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Foreword from Woomentum



Mouna Aouri

Digital technologies are fundamentally changing the way we live, work, and innovate. Touching every sector, digitalization is not only opening new doors for business growth but transforming the foundations of the way business is run in the twenty-first century. The Covid-19 pandemic has both accelerated adoption of these digital changes and brought their potential into sharp focus.

But the endless possibilities created by digital technologies can present their own challenges for small businesses uncertain about where to begin this transformational journey. What strategy should I adopt? How do I learn about it, and who will help me implement it? Is the technology I want available to me? And if not, are there equivalent technologies in my local context and within my budget? Adopting new technology can be overwhelming as it requires knowledge, an open mindset, and suitable infrastructure. These issues are the focus of this research, which attempts to answer these questions and develop recommendations for key stakeholders to help businesses achieve success.

Why is digitalization so important? Is it a necessity or an optional extra? These are questions we often hear from our respondents and community members. The Southeast Asian digital economy is estimated to hit \$300 billion by 2025.* We believe that women entrepreneurs should be equipped to be part of it, keeping their businesses relevant, prepared to scale, and enabled to flourish. Not only that: we firmly believe, in the long run, that this digital revolution can help women entrepreneurs overcome the gender-specific challenges they face, in turn empowering their families, communities, and society as a whole.

How will they do this? Today, in our target countries (and beyond), women entrepreneurs must juggle their business responsibilities alongside traditional family roles, often with no support from their spouses. Women entrepreneurs still cannot network the way their male counterparts can due to social and cultural stigmas. Yet today, there are tools that can help address those issues, providing women with the flexibility they need. From remote team collaboration platforms to e-commerce, digital tools can help women increase the efficiency of their business processes, increase productivity, save costs, and grow their revenues.

I am grateful for the eighty-six women entrepreneurs from Indonesia, Myanmar, Malaysia, and Cambodia, who came forward to share in-depth the successes and struggles they have experienced in running their businesses. We've been blown away by the stories of courage and determination in the face of the Covid-19 pandemic. I am also grateful for the forty-seven industry experts, policymakers, private sector, and professional association leaders who came together both online and offline to contribute to the findings.

I believe that by understanding the challenges facing women entrepreneurs, both as business owners and as women, we can recognize the inhibiting factors to their success. Only once these obstacles are identified can we create solutions. I hope this publication will provide recommendations that will help advance the ecosystems that support women-owned SMEs.

Finally, I hope this publication can reach readers around the world who are interested in the topic and keen to understand it in the context of Southeast Asia. I am also excited to share with our readers that this publication will be translated into Khmer, Burmese, and Bahasa Indonesia so that everyone can benefit from the findings in their native language.

I would like to thank my team at Woomentum and all the country researchers, report writers, editors, and designers, for their tireless work to make this publication come to life.

We are proud to partner with Konrad-Adenauer-Stiftung (KAS), who are big advocates for gender equity in the region and beyond. It has been an incredible journey producing concurrent research in four countries managed from KAS Tokyo office amid the COVID-19 crisis. We couldn't have done it without digital technologies!

Sincerely,

Mouna Aouri
Founder & CEO of Woomentum

*Source: Google/Temasek Holdings/Bain & Company Annual report 2020

Foreword from Konrad-Adenauer-Stiftung



Rabea Brauer



Cristita Marie Perez

The main obstacles hindering women from being successful entrepreneurs goes beyond equal opportunities and quotas. Oftentimes, it is as simple as not being granted a bank loan because of unmet requirements. Sometimes, the inability to escape the dependencies of family obligations scales back your business. It is the lack of technical means leading to the disadvantage of digital solutions.

These are some of the main findings of our research project “The Path to Success: How Women-owned Businesses Transform in the Era of Digitalization. Case Studies from Indonesia, Cambodia, Malaysia, and Myanmar”.

The entire project is a collaboration between the Konrad-Adenauer-Stiftung (KAS) regional program, Social and Economic Governance in Asia (SOPAS), and Woomentum, a membership-based collaboration platform that connects entrepreneurs, industry experts, corporate leaders, and investors to share knowledge, solve challenges, and access opportunities to grow their businesses. This project is an important component to the SOPAS pillar, advancing women in leadership positions and an additional contribution to the (admittedly scarce) literature on the current state and experiences of digitalization among women-owned small and medium enterprises (WSMEs) in Asia.

One-on-one interviews, expert interviews, and advisory panels with WSMEs, government institutions, and business associations in four Southeast Asian countries were conducted to measure the impact of digitalization, assess its challenges, and demonstrate the new opportunities that are available to women entrepreneurs. The research looks at the effects of digitalization on WSMEs’ (1) access to financing, (2) access to mentoring, networking, and skills, (3) business process and management, as well as (4) COVID-19 crisis management.

The common WSME challenges across four countries are highlighted in the introductory chapter. The chapter also discusses a general framework, comprising both policy and practical recommendations that governments and private organizations can take on to encourage women entrepreneurs to take advantage of the opportunities that digitalization offers. The succeeding chapters include country studies on Cambodia, Indonesia, Malaysia, and Myanmar. The country case studies provide a more in-depth analysis of the general findings introduced in the first chapter.

We would like this research to contribute to the much-needed improvement of the policy framework (and, to some extent, to the cultural and social context) that governs women-owned SMEs as they play an increasingly significant role in Southeast Asian economies.

Rabea Brauer

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Acknowledgments

This report was prepared as a joint effort between the Konrad-Adenauer-Stiftung (KAS) and Woomentum to shed light on the challenges faced and opportunities provided by digitalization to women-owned small and medium enterprises in Southeast Asia, particularly in the backdrop of the COVID-19 global pandemic. This research idea was initiated by Mouna Aouri and Socheata Touch and fully funded by KAS. Mouna Aouri designed and directed the project with the assistance of Juliana Tyan.

Talitha Amalia managed and co-authored this multi-country report production with Anuradha Rao and Suhaila Binte Zainal Shah. The case studies are from 1) Indonesia, whose research was conducted and written by Talitha Amalia, assisted by Farah Aulia and Nenden Sekar Arum, 2) Myanmar, whose research was conducted and written by Su Mon, assisted by Su Lynn Myat, 3) Malaysia, whose research was conducted and written by Tina Leong, assisted by Lim Zhen Hui, Nadhilah Zainal Abidin, and Amani Mohamad Husaini and 4) Cambodia, whose research was conducted by Sophorn Tous, assisted by Sar Senkethya. The Cambodia case study was authored by Anuradha Rao, assisted by Talitha Amalia and Suhaila Binte Zainal Shah.

During the book's preparation, many colleagues at the KAS, Woomentum, and elsewhere made important contributions in the form of invaluable technical advice and comments. The project team would also like to recognize the valued contributions from all the experts and advisory panelists participating in the research through interviews and sharing of experiences, including government officials, investors, entrepreneurs, business associations representatives, academia, and other key stakeholders. Lastly, the team would like to apologize to anyone who may have been overlooked inadvertently in these acknowledgments.

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Acronyms and Abbreviations

AI	Artificial Intelligence
ASEAN	Association of Southeast Asian Nation
COVID-19	Coronavirus Disease 2019
DFS	Digital Financial Services
e-Books	Electronic Books
Fintech	Financial technology
GDP	Gross Domestic Product
HR	Human Resources
IoT	Internet of Things
KAS	Konrad-Adenauer-Stiftung
MCSME	Ministry of Cooperatives and Small and Medium Enterprise
ME	Medium Enterprise
MSMEs	Micro, Small, Medium Enterprises
P2P Lending	Peer-to-peer Lending
R&D	Research and Development
SE	Small Enterprise
SME	Small and Medium Enterprise
US EPA	United States Environmental Protection Agency
VC	Venture Capital
WSME	Women-owned Small and Medium Enterprise

Executive Summary

Key Issues

Digital technologies, often referred to as computer-based products and solutions, are transforming industries everywhere, and the Southeast Asia region is no exception. In particular, Southeast Asian countries stand to benefit from digitalization embraced by its small and medium enterprises (SMEs), which includes women-owned SMEs (WSMEs).

Catalyzing women's entrepreneurial talent can bring many benefits, such as the advancement of women's economic empowerment and female labor participation, which in turn will fuel the region's socio-economic growth. However, although the rate of self-employment of women in the Southeast Asian region is high, women-owned businesses often lose out in competition, profitability, and size to male-owned enterprises, with little potential for further growth. Moreover, women entrepreneurs face many formidable challenges, especially as gender inequality and underutilization of female talent are deeply ingrained in Asian countries.

Economies and societies around the world, however, have been hit hard by the Novel Coronavirus or COVID-19 outbreak that engulfed the world from early 2020 onwards. COVID-19 has not only caused disruptions in global supply chains and border management but also severely impacted normal day-to-day social interactions, behaviors, and practices. However, the onset of COVID-19 also brought about a new appreciation for digitalization, as companies all over the world were forced to adapt and embrace new digital technologies during lockdowns. This study argues that digitalization can offer new potential for WSMEs to grow and innovate, as well as offset some of the gender-related barriers towards further leveling the playing field. By undertaking a comparative study in real-time and by considering the impacts of COVID-19 on the relationship between digitalization and WSMEs, it is hoped that this report makes a significant contribution to the emerging literature on digitalization and WSMEs in Southeast Asia.

A qualitative approach was adopted for this research, with data collection conducted in four Southeast Asian countries and each consisting of three main components: a series of in-depth interviews with female entrepreneurs, expert interviews with different stakeholders, and an Advisory Panel, involving women in entrepreneurship and experts brought together to formulate practical and workable recommendations and solutions. The interviews with WSMEs, experts, and the advisory panel discussion were structured to gather insights surrounding four pillars as representative of key areas in which digitalization can bring opportunities and challenges: 1) Access to Financing, 2) Access to Mentoring, Networking, and Skills, 3) Business Processes and Management, and 4) Crisis Management (COVID-19).

Key Findings

Pillar 1: Access to Financing

The issues that WSMEs faced concerning access to financing in each of the four countries varied slightly. In Indonesia, the key obstacle in the utilization of digital technology to gain external financing was fear and lack of motivation, as participants mentioned that there was no urgency to do so. For WSMEs in Myanmar, access to financing was the most challenging issue. Aside from the rarity of grants targeted explicitly at WSMEs in Myanmar, there was also a lack of alternative financing options. Meanwhile, in Malaysia, the key issue to emerge was WSMEs' doubts over stakeholder protection in the alternative financing sector, especially when compared to established financial institutions. This is likely due to a notable lack of awareness, as expressed through inaccurate perceptions of the mechanisms of alternative financing, as well as specific financing options from the government. In Cambodia, limited financial literacy and tax compliance were cited as key factors that hindered participants' adoption of digital technologies to finance their businesses.

Across all four countries, we found that most WSMEs interviewed utilized internal financing to run their business. Of the fewer number of participants that had gained external sources of funding, the most common type of funding was bank loans in Cambodia and private equity acquired from personal connections in Indonesia. In Malaysia, however, a strong preference for internal financing was found amongst participants, with bank loans rarely used. Utilization of alternative financing through digital financial services (DFS) was found among very few participants, possibly due to lack of awareness and understanding of external funding sources.

Pillar 2: Access to Mentoring, Networking, and Skills

A common theme discovered among the research participants was their limited professional networks, which further limited their access to mentoring and skills development. In Indonesia, many participants believed that as family responsibilities fell on their shoulders, family should come first. Therefore, they often missed opportunities to attend mentoring, networking, or skill-building programs run by the government or private sector, even if they were held online. The limiting factor for WSMEs in Myanmar was found to be more external, in that there were less informal networking opportunities available for women than for men. In Malaysia, there was an existing reluctance to seriously explore global business opportunities—partly owing to the fear of being on the losing end of business deals, particularly in foreign countries. As in the case of Indonesia, WSMEs in Cambodia also found it quite challenging to participate in mentoring events or find time for e-learning opportunities, as they were already struggling to juggle their business and family obligations. They also had limited access to information on mentoring programs both inside and outside Cambodia.

WSMEs across all four countries also generally displayed eagerness in learning, with the increased utilization of digital technology as a means to obtain new knowledge in the face of COVID-19. Digital tools were leveraged to listen to talks and webinars, attend e-learning programs or courses, watch videos on relevant topics, and to connect with mentors and peers within their industries.

Pillar 3: Business Processes and Management

While participants in Indonesia and Cambodia were observed to experience issues with regard to gender-related business processes, this was not the case in Myanmar and Malaysia. The participants in Indonesia and Cambodia mentioned they were struggling to juggle between business and family obligations. As they undertook cultural roles as mothers and daughters while also operating their enterprises, they faced time constraints that restricted them from participating in skills development, as well as social networks and association activities and events. In Myanmar, the main barriers to digital adoption into WSMEs' business processes were language, awareness, skills, and resources.

Here, language was the biggest barrier for many of them to find appropriate digital solutions and acquire new digital skills. Malaysia's main obstacle to wider digitalization of business processes was a mismatch of features in relation to WSME critical business needs, as well as the cost of existing digital tools. Tools and software that may seem affordable to large corporations were seen as a major burden by many WSMEs.

The most popular digital technology used by a large majority of the participants was to increase sales/marketing, such as social media and official websites. Several participants had also adopted digital tools for improving internal business processes, such as procurement systems, supply chain management systems, customer relationship management (CRM) systems, and data analytics. In Indonesia, Myanmar, and Malaysia, the decision to digitalize seemed to be market-driven.

Pillar 4: Crisis Management (COVID-19)

In the face of COVID-19, a majority of WSME participants said they had been negatively affected, especially those in the business of tourism and food and beverage (F&B). Most participants were able to adapt with the aid of digital technology— however, this was mostly a reactive response and not the result of anticipatory crisis management. The COVID-19 pandemic forced WSMEs in all four countries to increase digitalization of their business, or begin to adopt digitalization if they hadn't before, to maintain productivity and collaborate while working remotely.

Key Recommendations Specific to Government Institutions

Initiate gender-focused financing schemes, such as investing in and with women entrepreneurs, which can be accessed digitally.

The government can regulate and increase the amount of financing flowing to WSMEs, such as loans or equity financing, through funds that invest with a gender lens. Such intervention will ideally be combined with other capacity-building programs for the WSMEs and financial intermediaries.

Develop business training programs for owners and employees that specifically address the gender-equality agenda.

This can include incentive schemes for women entrepreneurs who innovate with digital technology applications. Education and training targeted at WSMEs should take into account societal and cultural contexts, such as using local language(s), and incorporate practical tips for women to thrive in both business and personal life.

Ensure the accessibility, safety, and transparency of all regulatory compliance that can support the growth of WSMEs.

Make gender-equality policies mainstream across all major SME policy-making agencies, and ensure all regulatory compliance processes are more centralized, transparent, and efficient to reduce gender-based discrimination. E-government initiatives are necessary, but they need to be supported with regulations to protect data privacy and security of WSMEs and all ecosystem stakeholders.

Provide pandemic stabilization and recovery funds, employment wage subsidy schemes, loan relaxations, and tax waivers to WSMEs.

The pandemic aid provided for WSMEs should also be time-limited, targeted, transparent, and non-discriminatory, equally accessible for both small and medium enterprises. In addition, governments can work with the private sector to proactively provide clear requests and guidelines for WSMEs to put measures in place that will prevent the spread of COVID-19 in the workplace while ensuring productivity.

Key Recommendations Specific to Institutions Providing Assistance to WSMEs

Increase public awareness and make the funding gap for WSMEs more visible.

The private sector, including think-tank organizations and nonprofits, can highlight stories about how scarce woman CEOs and woman founders are. Furthermore, they can investigate if funding for WSMEs is widely accessible, e.g. how many venture capital-backed WSMEs, woman investors, and women acting as grant committees exist.

Encourage non-conventional skills development and address gender stereotypes through training and talks in local languages.

A gender stereotype is harmful when it limits women entrepreneurs' capacity to develop their personal and professional abilities. . Moreover, as technologies constantly transform economies, soft-skills education, such as a growth mindset and change management, is needed for WSMEs to thrive.

Popularize success stories of digitally- enabled WSMEs.

Institutions providing assistance to WSMEs can help increase the awareness of data privacy and security in publicly- or privately-organized events. Success stories provide tangible examples to inspire other WSMEs to adopt digitalization.

Promote the benefits of joining business communities and associations so that WSMEs can learn from other experienced entrepreneurs and mentors to prepare for crises strategically.

Business communities and associations can provide more digital networking, skills building, and mentoring opportunities. This will be an important area for the private and public sectors to innovate, given that digitalization will only increase in the post-pandemic environment. Furthermore, consultation and learning opportunities provided by qualified professionals with a proven track record in relevant fields are needed to develop business continuity plans and prepare for unprecedented changes.



Indonesia Case Study

1 Country Background

Digitalization and Economic Growth

The growth of Indonesia's economy has been undeniably accelerated by digitalization. In the past few years, large companies all over the world have invested heavily in Indonesian tech startup companies that resulted in the production of four unicorn companies¹ (Gojek, Traveloka, Tokopedia, and Bukalapak), the largest number in Southeast Asia. Although a recent World Bank report suggests that the impacts of COVID-19 provide an unavoidable sobering economic lesson for the region, Indonesia seems to be confident that digitalization can help the country navigate the crisis.² This confidence is boosted by the fact that internet penetration in Indonesia has reached 64 percent, an increase of 17 percent compared to the previous year.³ This trend cannot be separated from the construction of a massive, nationwide internet network using fiber-optic wires called the Palapa Ring launched during President Joko Widodo's first-term administration.⁴ However, despite these efforts, Indonesia is still spending less on information and digital technology compared to its neighboring Asian countries.⁵ According to Cisco's Digital Readiness Index 2019⁶, Indonesia is, in fact, still considered to be at an intermediate stage of digital readiness. While mobile platforms are abundant and app-based services are being rapidly adopted, the country is still focusing on providing reliable connectivity and devices throughout the country.

Digitalization and SMEs

Small enterprise (SE) in Indonesia, can be defined as a company with annual revenue between approximately USD 20,000 - USD 170,000 (IDR

300 million and IDR 2.5 billion), whereas medium enterprise (ME) can be defined as a company with an annual revenue between approximately USD 170,000 - USD 3.4 million (IDR 2.5 billion and IDR 50 billion).⁷ The latest data from the the Indonesian Ministry of Cooperatives and Small and Medium Enterprises (MCSME)⁸, showed that in 2018, the combined contribution of small and medium enterprises (SMEs) to the Indonesian GDP was 23.3 percent (IDR 3,270,819.7 billion), lower than the contribution of micro-enterprises.

Enterprise Contribution

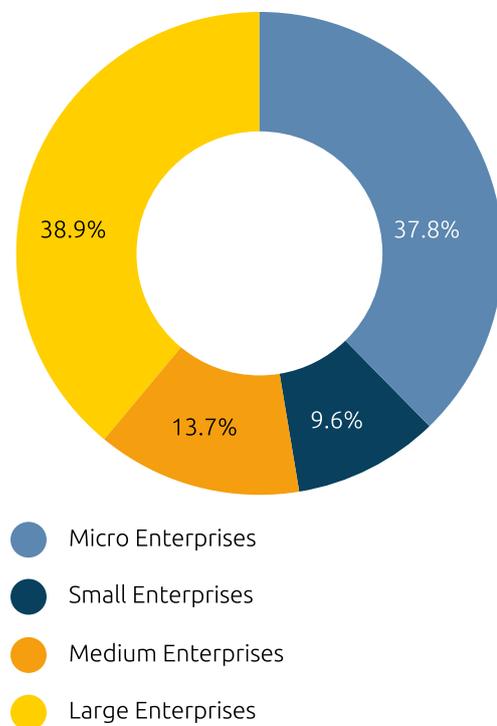


Figure 1: Enterprise Contribution to Indonesia's GDP in 2018

Nevertheless, SMEs are still part of the backbone of Indonesia's economy. The latest Oxford Business Group report⁹ listed that Indonesia was home to 2000 technology startups, 150 fintech lending startups, and 75 fintech payment startups. SMEs in Indonesia are showing high enthusiasm for digitalization, having seen an increase of 104.4 percent in marketplace adopters in a one-year period (2017-2018).¹⁰ However, Indonesia still has quite a long way to go in digitalizing SMEs, especially during the COVID-19 pandemic. In June 2020, MCSME stated that only 13 percent (approximately 8 million) of micro, small, and medium enterprises (MSMEs) had adopted online marketplaces despite an 18 percent increase in e-commerce sales in May 2020.¹¹ Unfortunately, there is no breakdown data about the distribution of micro, small, and medium enterprises that have adopted online marketplaces, or how many WSMEs have adopted online sales through marketplaces.

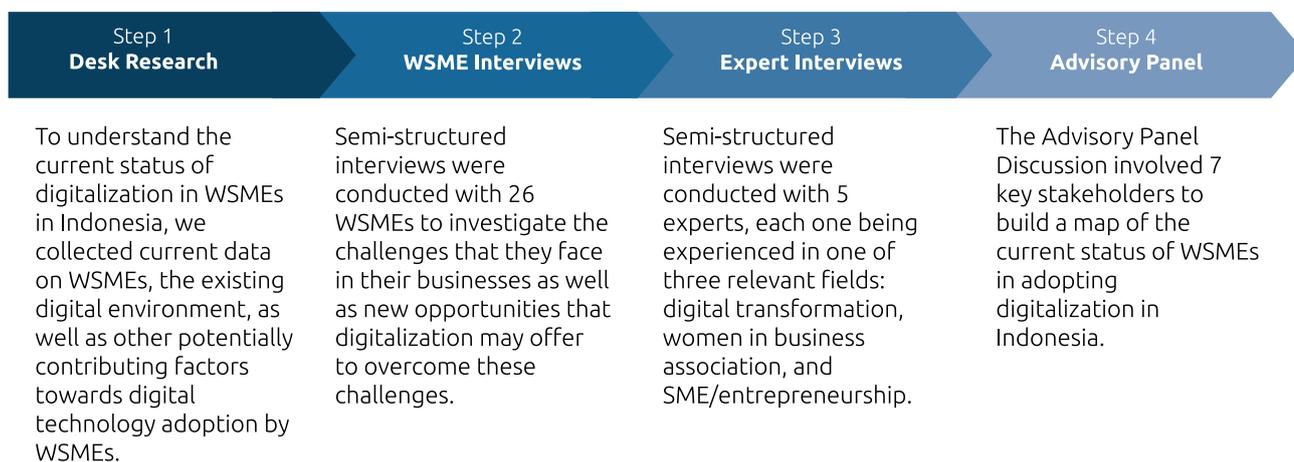
In the current digitalization and SME ecosystem of Indonesia, the role and contribution that women play are still unclear. Although most laws and policies for SMEs are gender-neutral, women in Indonesia are often faced with discriminating social norms and various forms of violence.¹² In a period of 12 years, violence against women cases in Indonesia have increased by 792 percent (almost 8 times), including domestic violence and various types of cyber crimes against women.¹³

Through this report, the authors aim to clear the fog surrounding the relationship between WSMEs and digitalization, especially during the COVID-19 pandemic. They focused on mapping the current state of digitalization adoption by WSMEs in Indonesia and whether it is enhanced during the COVID-19 pandemic to understand the extent to which the various aspects of their business have or have not been digitized. Based on these findings, they are also able to highlight the challenges that WSMEs in Indonesia may and do face and shed light on the new opportunities that digitalization may and do bring to overcome these challenges.

2

Methodology

Using a qualitative approach, the authors drew upon publicly available data as well as information collected through interviews and panel discussions as the main sources of information. Due to COVID-19 and advised social restriction measures, the entirety of the research was conducted with the aid of online meeting platforms and conventional phone calls. The data collection process in this research was carried out in four procedural steps in the presentation below:



Participant Selection Criteria

WSME Participation

For this research, the authors separated small and medium enterprises solely based on annual revenue, as explained in Section 1. Based on this categorization, interviews were conducted with 26 female entrepreneurs who owned small or medium enterprises. The WSMEs participants were diverse in terms of age (23-72 years old), marital status, and located in 12 different cities throughout Indonesia. These participants represented each of the three main economic sectors (raw materials, manufacturing, and services), and they were further divided into 19 different sub-sectors. A relatively-balanced representation of women-owned SEs and MEs is also apparent in Figure 2.2, with most women have been in the business for less than 6 years.

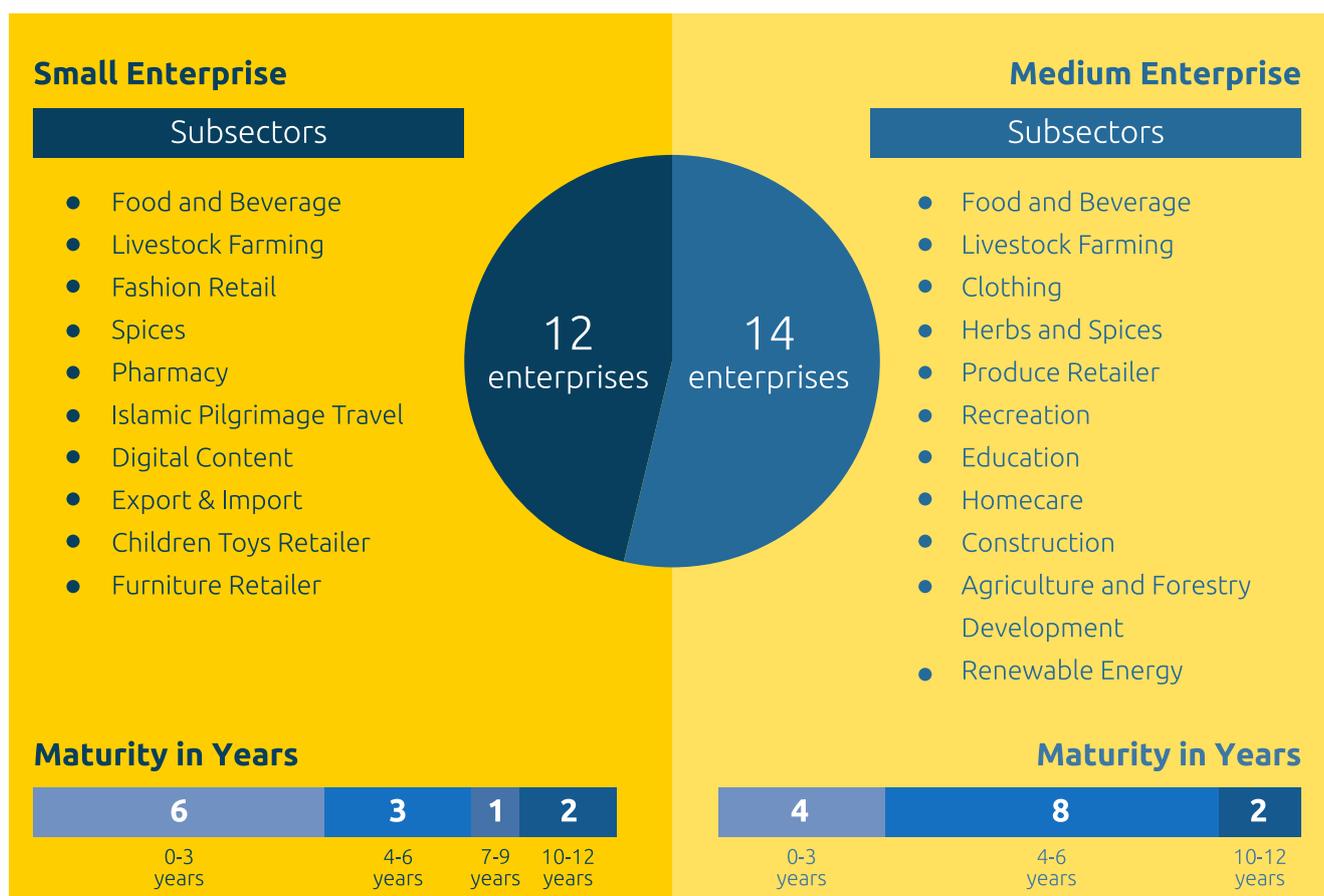


Figure 2: Breakdown of Participant Business Sectors

Expert Interviews and Advisory Panel

In the exploratory phase of this research, talking to experts was very important. As Bogner et al.¹⁴ proposed, “conducting expert interviews can serve to shorten time-consuming data gathering processes”. Through the interviews with 5 carefully-selected experts from digital transformation, entrepreneurship, and women-in-business association, the authors could get practical insider knowledge of the SME ecosystem and have access to information about a wider circle of players to prepare for the advisory discussion panel.

After analyzing the preliminary findings from WSMEs and expert interviews, the authors then invited more experts to participate in the advisory discussion panel. The panel was designed to reconstruct information gathered from previous interviews and draw benefit from it in the process of creating a set of practical and policy recommendations. The advisory panel consisted of representatives from policymakers, academia, leading female entrepreneurs, digital transformation expert, women-in-business association expert, and business investment expert. See Appendix A for the detailed list of expert participants and advisory panelists.

Data Analysis

The WSME interviews, expert interviews, and advisory panel discussion were structured into four pillars that the authors believe play an important role in the digitalization of businesses for women: 1) access to financing, 2) access to mentoring, networking, and skills, 3) business processes and management, and 4) crisis management (COVID-19). All interviews and discussions were conducted in Bahasa Indonesia (all participants' first language), and digitally recorded. Notes were written during the interviews and discussions were reviewed throughout the analysis. See Appendix B for a detailed elaboration of the data analysis process.



Limitations

While the research design aimed to work within the time constraints, the research is still limited in depth and breadth. The data was collected in just over 4 weeks during the COVID-19 pandemic. To maintain social and physical distancing, the authors relied entirely on mobile and digital technology to maintain communications and collect data.

In future research, getting a larger sample size and facilitating deeper, more personal discussions with female SME owners about digitalization in a planned and considered manner is encouraged. This may yield important information in the understanding of gender-related challenges these women might experience and its relation to the enhancement of digitalization amongst WSMEs.

3

Interview Findings

Every interview began by asking the participants whether they were aware of the digital technology that is readily available to them. They all displayed an awareness of digital technologies to some extent. What the authors found most interesting especially at the SE level was that participants often spoke about digitalization as something inevitable. Phrases such as, “I am very open to technology” or “Like it or not, we have to adopt technology” were commonly found during interviews. It struck as being a template answer that they have learned to repeat. In the following sections, the authors discussed the relationship between digitalization and WSMEs to understand whether this awareness translates to the adoption of digital technologies in various aspects of their business.

Pillar 1: Access to Financing

The majority of WSME participants used internal financing to run their business, yet a small fraction of the group rely solely on some form of external financing. Of the 50 percent of WSMEs who used external financing for their business, the types of external financing that was most accessed were private equity and bank financing (as displayed in Figure 2.3), with 26.9 percent and 15.4 percent have used these two forms of financing, respectively. It was observed that external financing options had been explored by 8 MEs and 5 SEs.

Indonesia’s SME ecosystem has various alternative financing options, such as grants, government funding schemes, fintech peer-to-peer lending (P2P lending), and crowdfunding. The authors noticed that the WSME participants were aware of the alternative digital financing options that are available for them.

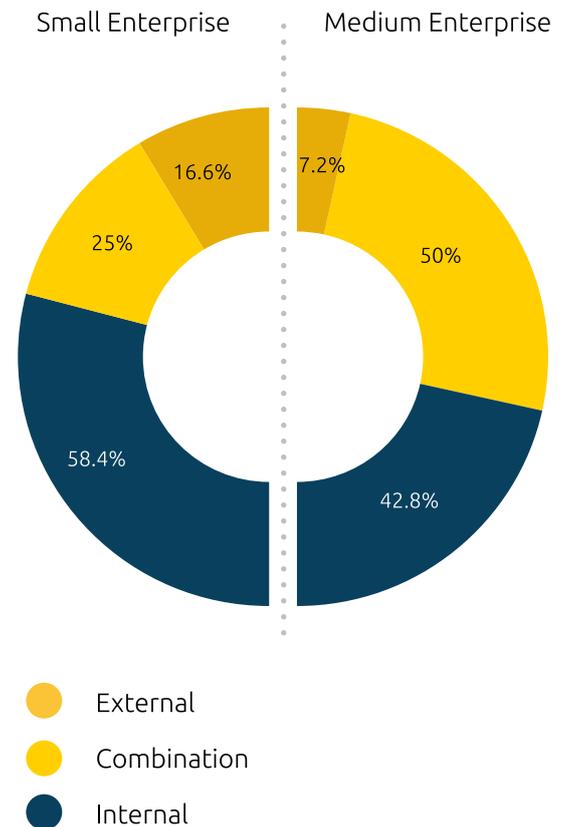


Figure 3: Breakdown of Financing Sources in SE & ME

However, the adoption rate of such financing options especially through digital financial services (DFS) was still low amongst the participants due to various factors. When asked specifically whether they have considered the P2P lending option, most of them had considered it but decided not to pursue it due to concerns related to a limited amount of funding available for them, data privacy and security, and/or higher interest rate. The participants assumed that alternative financing options such as P2P lending is more suitable for micro-enterprises due to the small amount of loans provided.

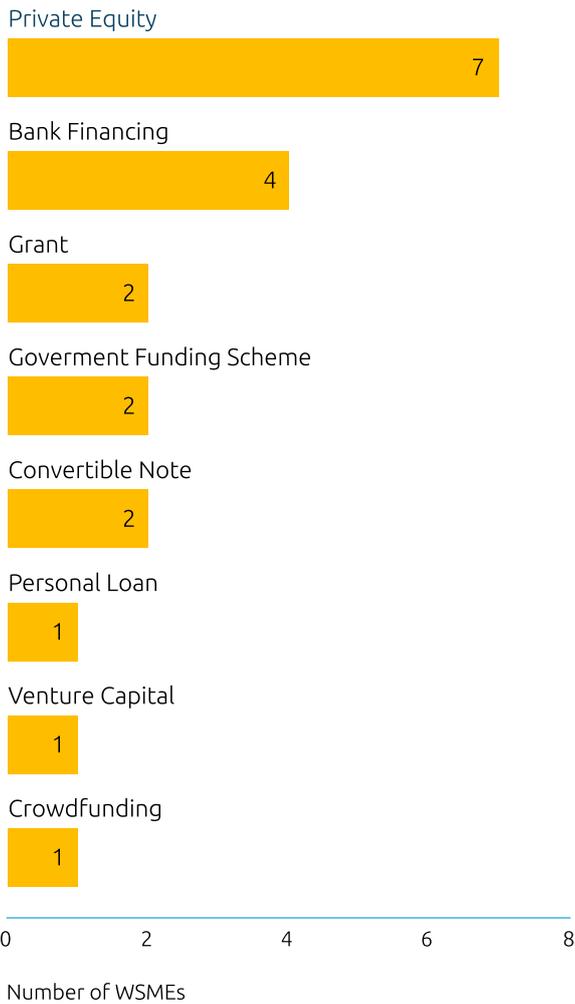


Figure 4: Breakdown of External Financing Sources Sought by the WSMEs Participants

There are other various explanations as to why the WSMEs participants were reluctant to seek funding through digital means. The authors tried to investigate further by asking participants about why they did or did not seek funding digitally. After collecting data, participants’ responses were grouped into themes that are discussed in the following paragraphs.

Factors Influencing Decision-making in Accessing External Financing

The main contributing factors for not taking alternative financing options revolved around motivation, fear, and knowledge.

First, lack of motivation and fear were identified because many participants mentioned that there was no urgency in getting external funding. They suggested that pursuing alternative financing is not prioritized due to various potential risks. It implies that the influence of the inner circle and their religion has a major effect on how they see various forms of alternative financing. One participant stated, “We consider our Islamic religion, we are trying to survive without alternative financing.” (ME4). She further explained that her concern was *riba* (often called usury) if she borrowed money from the bank or other financing alternatives. In Islam, the concept of *riba* is forbidden. *Riba* refers to determining interest or exaggerating the loan amount when repaid based on a certain percentage of the principal amount charged to the borrower.¹⁵ Although there are many banks¹⁶ and financial technology (fintech) companies¹⁷ that claim to obey Islamic rules and regulations, some of the participants were persistent about avoiding external financing.

Second, those who have strongly negative opinions about alternative financing options suggested that they are aware of their lack of knowledge of the topic. This implies that their opinions are based only on statements they have heard from their environment. This unfounded fear is perhaps grounded in women’s general tendency of being risk-averse, including in financial decision-making.¹⁸ It was observed that of the WSME participants who have gained funding through private equity, many were through their inner circle (close family and friends) or directly from inner circle members. This aligns with the findings of Agussani & Bahri’s research¹⁹ that families play an important role in providing both financial and non-financial support to women entrepreneurs in Indonesia. This trend also reflects women’s aversive nature to risk-taking²⁰, with tendencies of only pursuing financial options that seem to be ‘safer’.²¹ This attitude has been found to be consistent in women throughout the years, evidenced in the abundance of research on gender and entrepreneurship.

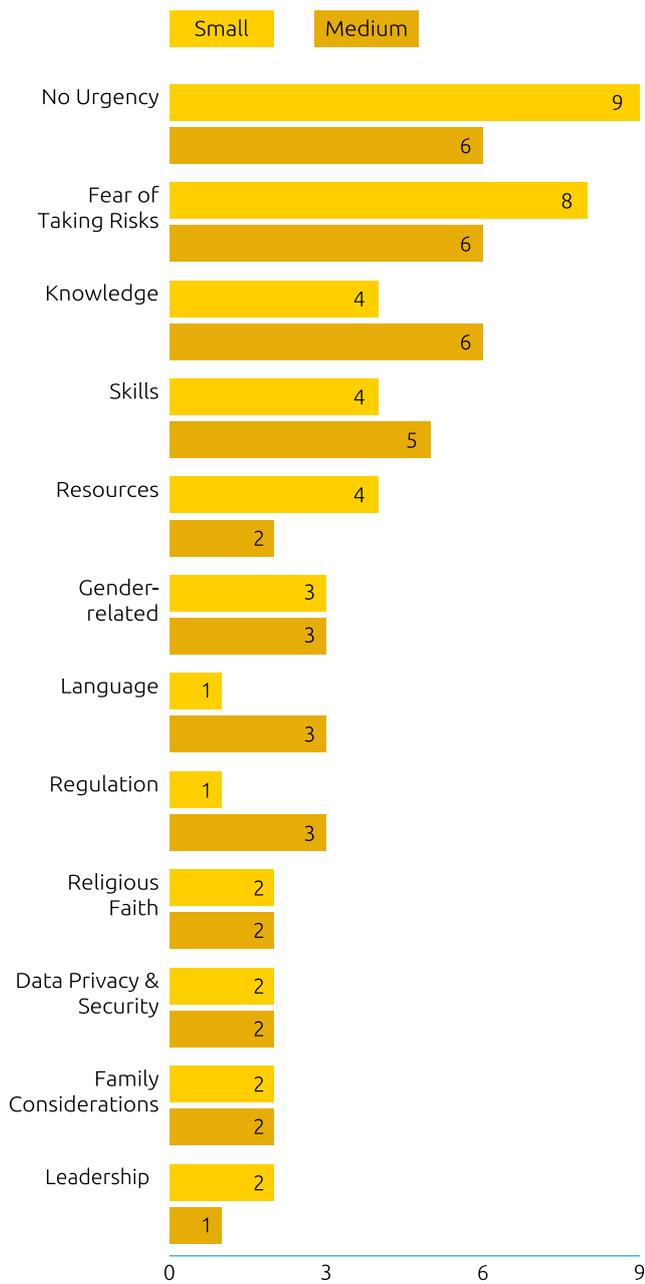


Figure 5: The Participants' Reasons for Non-Utilization of Digital Access to Financing

Pillar 2: Access to Mentoring, Networking, and Skills

In this area, there was no separation between the SE and ME participants when it comes to the expectations of what they can gain from mentoring and networking activities. In Indonesia, there is a diversity of formal and informal mentorship programs available for women entrepreneurs, both publicly or privately sponsored. However, the participants expressed the need for face-to-face interaction and long-term engagement so that the skills and knowledge that they are exposed to become complete and sustainable. An SE participant shared her concern about her short-term engagement with a mentor below.

“

I joined a 3-month mentorship program, and we met biweekly when I was just starting my business. I didn't have many experiences then. So, when I got feedback, I still had problems with how to implement it. And then, after the program was done, the mentor and I stopped keeping in touch.

(SE11)

The participants mentioned that in order to learn and expand their network, they need to commit a decent amount of time and effort. This is often set as a lower priority as many of the participants believe that family responsibilities fall on their shoulders and should come first, even when their husbands or parents do not exert any such pressure on them. Therefore, many times they missed the opportunities to attend mentoring, networking, or skill-building programs run by the government or private sector even if they are held online.

Moreover, many participants have joined business communities and associations, but not specific for women-in-business. When asked why they did not join gendered associations, most of them were surprised that they had not thought about the reasons before. One participant with a differing opinion was quite vocal about this,



I am not so concerned about joining women-in-business associations such as IWAPI. Being in the same forum with middle-aged women who like to talk about their personal lives is not interesting for me. I utilise the sharing session culture that I have in my family. We have a weekly Zoom²² sharing session where each of us takes a turn to share new knowledge. So far, for me, that's very effective.

(ME10)

The authors investigated further why those that used mentoring decided to use it and how they found it. The authors also discussed the awareness and understanding that the participants had towards digitalization in relation to mentoring, networking, and skill-building in the following section.

Factors Influencing Digital Adoption in Accessing Mentoring, Networking, and Skills

Mentoring

The study suggested that there is a strong need for face-to-face and long-term engagement with mentors who women entrepreneurs can trust and respect to discuss business-related challenges. To secure accessibility and reliability of their mentors, many participants seek guidance and mentorship through family and their inner social circles such as internal team members or investors. "My father is my mentor," said SE4. Furthermore, a ME owner expressed a desire to find a reliable mentor in product development that she can engage for a long period of time, but she just did not know how to find mentors outside her inner circle. These situations had made the participants refrain from searching for mentorship online.

Networking

Many participants were more likely to explore the opportunities through both offline and online channels. Based on their experience attending virtual events organized by the public and private sector on Zoom, Facebook-owned networking sites²³, Youtube, or other virtual conference platforms, lack of direct interaction with speakers and other attendees have become a major issue. The common motivation to attend online networking events was COVID-19. Some participants admitted that because of COVID-19, they were forced to join online events. An SE owner mentioned she only attended online networking events twice during the COVID-19 pandemic because she usually knows of and attends offline networking sessions.

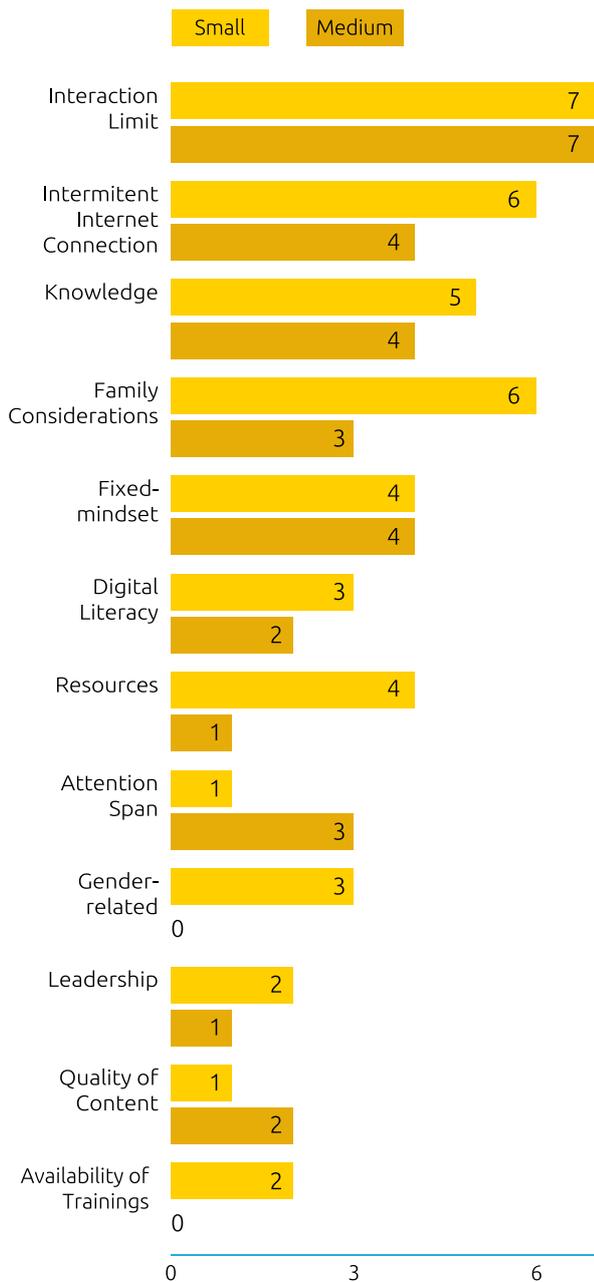


Figure 6: Factors Affecting Digital Technology Adoption in Access to Mentoring, Networking, and Skills

“Due to the pandemic, I definitely join the online ones now,” (SE10).

Moreover, most interviewees suggested that virtual networking is not ideal in a situation where access to stable broadband is unpredictable. Intermittent internet made it difficult for the participants to get accurate information from the speakers.

This problem was encountered by the participant and perpetuated by the current situation where all participants had to work from home during the COVID-19 pandemic. To attend online networking events from home was challenging. “The challenge is the connection. There’s a limit to how effective we can get all the information. Another thing is that the environment needs to be conducive for a webinar.” (SE7).

Skill-building

Despite the interaction limit and intermittent internet connection, all the participants showed eagerness in learning. Many had mentioned finding sources of information through electronic books (e-books), podcasts²⁴, online sharing sessions done through video conferencing tools, and other online learning platforms. Interestingly, most participants utilized instant messaging applications such as WhatsApp to connect and learn from their peers.

Additionally, the participants mentioned that they found it tricky to access information about mentoring, networking, and skills online due to the abundant information provided on the internet. They often felt unsure of where and how to start. That is why they had opted for a strategy of using inner circle connections for advice on how to find the right information online. Some participants followed social media accounts that they admire in the hopes of being updated about opportunities for virtual events. The most frequently mentioned social media in the interviews were Instagram and Facebook.

Through observation and interviews, the authors are positive that digital networking events and learning had started to become more popular in Indonesia during COVID-19. However, there are perhaps many female SMEs owners that might need a little help in understanding why this can be done online, where to find information, and how to do it.



I haven't searched for mentors online, but I usually go to the MSME agency²⁵ in my city. So, whenever we have a problem, we can go and talk to them. For example, to obtain a Halal certificate for my product,²⁶ I utilized a Whatsapp group created by the MSME agency so I can learn from my peers. So, fellow MSMEs feel 'we are in this together'. We feel optimistic and confident that we could go through this time to obtain a Halal certificate.

(ME2)

WSME Highlight 1: Rasha Nusantara



Ayu Budiyanthi, Co-founder of Rasha Nusantara

Ayu Budiyanthi is the co-founder and Chief Marketing Officer of Rasha Nusantara (<https://www.rasha.id/>), a medium enterprise providing traditional herbal concoctions. Together with her husband, Hatta Kresna, she started the business on a small scale in 2016 with the goal to preserve the culture and local wisdom, encourage conscious living, and nurture women empowerment by employing marginalized women in urban areas. Rasha Nusantara manufactures traditional herbs and spices into various natural-based products such as essential oils, seasonings, snacks, and jamu.²⁷

Budiyanthi explained how digitalization has helped her develop herself into the entrepreneur she is today through the mentors and networks she obtained as one of the grant winners of Investing Women Australia Awards 2017.

With the use of digital technology, Budiyanthi continuously seeks to increase her skills and knowledge. She obtained a scholarship for a short course from Wharton School, which also allowed her to further enlarge her network. She most highly values the experience and opportunity that the Australia Awards has given to her, especially with the kind treatment that she was not able to receive in her own turf.

Her openness to digitalization also translates to her continuously growing use of digital tools for her business processes but she wants to ensure that the technology that she uses still has a sense of personal and human touch. Initially beginning with selling her products through online marketplaces, she was unsatisfied that they had no access to customer data and was inspired to then build her own online platform in order to create more data driven decisions.



At the time, my third child was only 3 months old and was still depending on me for feeding, and since the beginning, we never had a nanny or babysitter. So I asked permission from the Australia Awards team if I could bring my baby along and I promised that my baby would be calm while I pitch. In my arms, my baby was calm the whole time, and they really appreciated what I did. I once requested the same thing in Indonesia to an Indonesian investor and was rejected from the very beginning.

Ayu Budiyanti

Pillar 3: Business Processes and Management

Digital adoption for business processes was higher in the ME than SE participants. However, the process of adoption was not linear amongst SEs and MEs. In addition to adopting sales/marketing and accounting tools, many participants had adopted collaboration tools, or experimented with integrating digital technology into their product/service development. In the following discussion, the authors identify the most and least commonly used applications for business processes amongst the participants.

Most Commonly Used Digital Tools		
Sales and Marketing	Financial Management	Collaboration Tools
<ul style="list-style-type: none"> ● Social Media: 1) Instagram, 2) Facebook ● Marketplace: 1) Tokopedia, 2) Shopee, 3) Go-jek, 4) Traveloka ● Company website ● Online advertising 	<ul style="list-style-type: none"> ● Jurnal.id ● Monefy ● Accurate Online ● Google Spreadsheet or Excel Sheet 	<ul style="list-style-type: none"> ● Google Drive and Google applications ● Trello ● Microsoft Team

Figure 7: Most Commonly Used Digital Tools by WSME Participants

All participants had at least, adopted one or two digital sales/marketing tools, with Instagram as the most popular. However, not all of the participants found social media to be the most effective means, depending on the types of business they are running. For example, an ME in the renewable energy business expressed her concern about her digital sales/marketing strategy.

“

Because we are in the renewable energy sector, we use technology a lot in product development. But, to be honest, I feel I'm just a bit ignorant. Although my team is now developing our website for branding and marketing, I still feel that using social media or websites for my business is not that important. I think our challenge now is marketing and sales. If I think about it, lots of companies develop a website to help engage customers. I questioned myself, why didn't I think about website development before? At the moment, we are still stuck in using WhatsApp to contact or communicate with our business clients.

(ME8)

As experts suggested, in SMEs, most of the business process decisions were handled by the owner. In addition to resource and skill constraints, the delegation process can also be limited due to the small team size. These issues were found to be more present in SEs and may indicate that the owner needs to understand digital technology herself. For example, an SE participant shared her experience in choosing the right accounting tool for her business.

“

I checked various local accounting applications such as Jurnal.id before I ended up choosing Accurate Online. I compared the pricing as well. I chose cloud-based software because I have children. I mean with cloud-base tools, I don't have to go to the office to check my finances. I can check it from home, from my smartphone. And I can see everything, including taxes, inventory, sales. It's easy.

(SE5)

Although many participants have adopted digital technology for business processes, the authors observed the adoption could be further optimized. Many participants wished to adopt more technologies into their business. Conversations around the Internet of Things (IoT), Artificial Intelligence (AI), and blockchain were present in the research. Interestingly, a few participants had mentioned putting more digital technology adoption in their business pipeline. “We are trying to experiment with utilising AI to improve our new product, and it’s in the pipeline this year.” (ME1). With many opportunities yet to be utilized, the contributing factors influencing the digital adoption for business processes are discussed in the following section.

Factors Influencing Digital Adoption for Business Processes and Management

Although markets are changing rapidly, change is still something that is quite tricky to achieve in business. Faced with the requirement for speed, uncertainty, complex information, technology, competition and unpredicted global crisis (COVID-19), not all WSMEs can adapt well to change. Given the constraints associated with limited resources, talent, and skills, the problem with optimal technology adoption amongst the participants is not surprising.

Another important factor for the lack of optimal digital adoption in the business process is change management. Change management refers to the organizational process of continually renewing directions, strategies, and capabilities to serve the customers’ needs.²⁸ Expert interviews suggested that too often, SMEs are stuck in old patterns of seeing and acting. Similarly, the participants noted that they were comfortable with the way things were, and many of them admitted to having very limited time to reflect or learn effectively from their experiences.

With regard to retrospective activities, the participants mentioned they were struggling to juggle between business and family obligations. This issue is most notably present amongst the participants who have children. An SE owner explained that she prioritized family and therefore set a low bar for her business.



I need to be transparent with my team, especially now that I am pregnant. I have the lowest energy ever. I need to lower my expectations, take it one day at a time. My eldest is still a toddler, and now I am pregnant. I need to remind myself that I am doing enough. If I’m stressed, my baby’s health and my wellbeing at home will be affected.

(SE5)

Another explanation to this is perhaps related to women’s motivations for starting their business. Wulandari et al.²⁹ stated that entrepreneurial motivation strongly influences women’s business performance. When the enterprise is driven by less ambitious motivations such as fear of unemployment or to support the family, women are less likely to share knowledge with one another.³⁰ Ultimately, this results in low capability of growing their business and adopting relatively new concepts such as digitalization. This is likely to reinforce their reluctance to introduce change until circumstances force them to. One interesting case came from an ME owner who was forced to adopt a digital sales and marketing approach when she found that her brand had been pirated by counterfeiters.

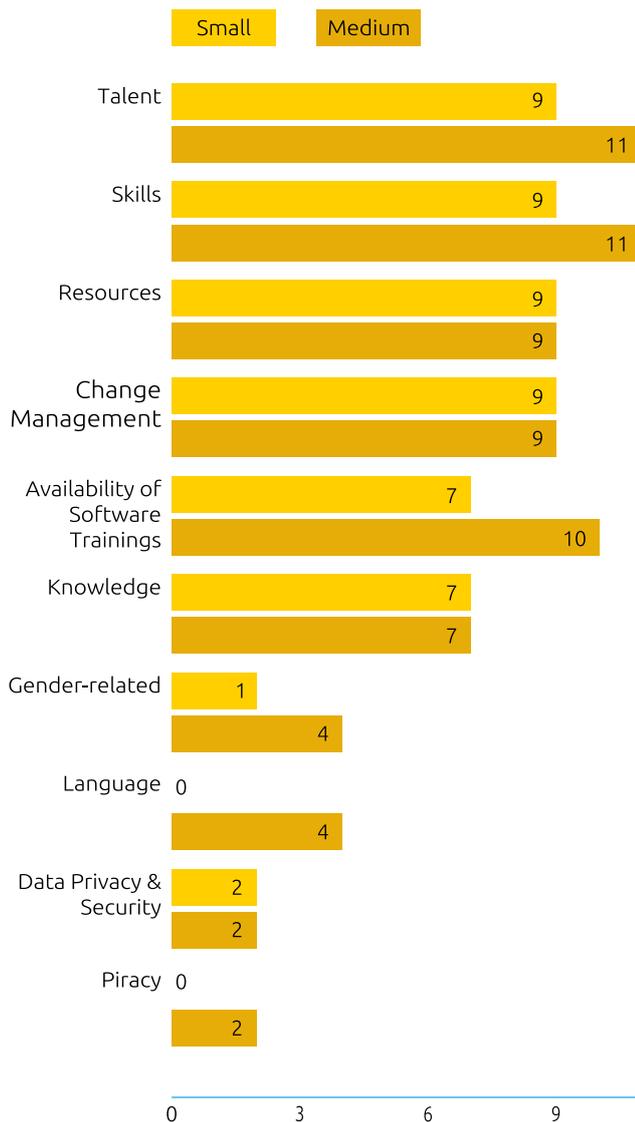


Figure 8: Factors Affecting Digital Technology Adoption in Business Processes and Management



I didn't plan to create an online shop initially, because many (counterfeiters) sold fake t-shirts online, that's when I realized. The funny thing was that I was once interviewed by a radio station, the radio wrote a piece of article as a result of the interview, and the pictures of my "products" were published. When I read it, I said, 'Wait a second, this is a fake product! Where did you get it from?' and apparently, the radio team took the pictures from Google³¹ image.

(ME3)

Moreover, many participants mentioned having to deal with gender-related prejudices and discriminations at business meetings/negotiations.



I feel so strongly about being discriminated against because I'm a young woman. People think I am just an assistant to my partner. I mean, I am lucky that my partner respects my skill-set, so he often defends and protects me during meetings and business negotiations. You know, when I introduced myself first, people would doubt me. But, when I was introduced by my co-founder, people would respect me.

(ME9)

Other examples of discrimination experienced by the participants included:

1. being rejected by the Indonesian investors or potential clients because of her gender;
2. difficult to access financing from the banks because some banks required her husband's signature to process loans or other financing services;
3. being treated in an unfriendly way when delivering samples to retail stores;
4. feeling responsible for adjusting her position around men;
5. feeling uncomfortable traveling alone for business reasons.

To conclude, the participants agreed that, in reality, women have a lot more responsibilities to juggle between family and business compared to men. It was hard for them to reflect on their experiences and plan organizational change in business. Many participants also argued that women do not have as much access to various aspects of business compared to men. As a result, many participants considered hard work as the only solution to avoid discrimination. They felt an obligation to prove to society that they are capable of running successful enterprises.

Pillar 4: Crisis Management (COVID-19)

In April 2020, MCSME prepared a stimulus package after receiving reports from 37,000 MSMEs severely hit by the COVID-19 pandemic.³² The stimulus included loan relaxations, a six-month tax waiver, and cash transfer for micro-scaled businesses. The government prioritized the aid to be delivered to micro-scaled businesses because they were assumed to be most impacted by the crisis. From the total complaints about the impact of COVID-19 on businesses that MCSME received, only 12.6 percent came from SMEs, suggesting that SMEs are more able to survive during the crisis than micro-scaled businesses.

Interestingly, most WSME participants stated to have increased sales in April and May despite problems related to operations and productions. The increase in sales was salient in WSMEs who optimized digital sales/marketing strategies such as messengers, social media, marketplace, and website. They further explained that lockdown measures might have contributed to the increasing number of customers' screen time. "My sales have increased since COVID-19, because people prefer to shop online now," said SE4, who sold cakes online. The 88.5 percent of WSME participants stated that digital adoption in their business was also enhanced during COVID-19 for survival, and this trend was seen in both the small and medium enterprise groups.

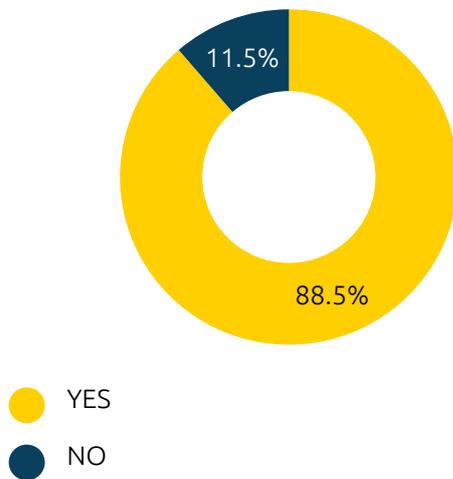


Figure 9: The Enhancement of Digital Technology during COVID-19

Due to limitations in physical contact, many SMEs began to build their online presence and conduct sales through online marketplaces. However, some increased their online sales activity because they have had an online presence since before the pandemic. Explored usage of online meeting platforms was also often mentioned by participants as a means of collaborating with the team or communicating with external parties. Additionally, many WSME participants utilized digital technology to transform their product/service delivery method to their customers. "I use the Gosend (in Gojek app)³³ a lot now to deliver the chickens." (SE12).

Most WSME participants were found to be resilient in the face of the pandemic crisis, having been able to sustain their businesses despite the drastic changes in the conditions of the market, even though some enterprises had to take dire measures and pivot their business in order to survive.



I am now running a souvenir business from the Middle East. I had to change direction in February 2020 because of the pandemic. Previously, I was running a religious travel company specialising in Umrah and Hajj to Saudi Arabia but then the Middle East experienced lockdown measures before Indonesia was officially COVID-19 positive, so I had no work then. Because of that, I had to lay off 4 people in my travel company, and the remaining 3 people are now still working to sell souvenirs. We started selling on social media from then on.

(SE7)

Constraints regarding digitalization in business appeared in both SE and ME. What are the biggest challenges at the front of the mind for female decision-makers in these businesses? How is their variety reflected in the concerns they have about their operations? In the following section, challenges that the participants encountered in relation to digitalization is further discussed.

Challenges to Digital Technology Adoption

Although WSMEs showed interest in digitalization, the participants with lower levels of digital awareness and literacy may not fully grasp the potential opportunities and impact. The authors combined all the contributing factors appearing in all pillars discussed previously to find the major challenges to digitalization (Figure 2.10). Generally, the participants were concerned with their knowledge of digitalization and ability to keep up, the need to have resources to recruit and retain highly skilled staff with digital expertise, and change management. To fully understand if the business size reflects the type of challenges the participants encountered, the analysis into challenges faced by SEs and MEs are broken down in the following section.

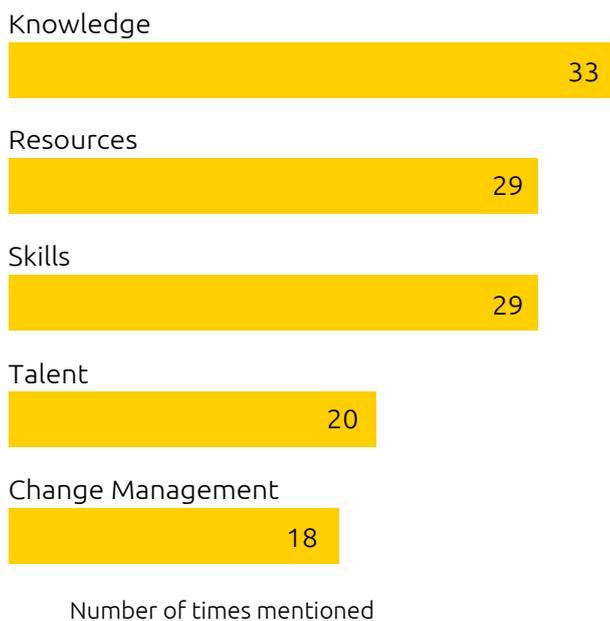


Figure 10: Top 5 Challenges in Digital Technology Adoption Found amongst WSME Participants

Challenges Faced by SEs

SE participants mentioned having adopted a few types of digital tools, particularly to increase sales. When asked if they are going to adopt more tools, most mentioned to having limited resources, skills, and talent. A SE owner shared her struggle with digital adoption, In addition to the aforementioned limitations, the participants mentioned a lack of knowledge of the opportunities that digital technology can provide. This is even more difficult to realize for those who are not immensely ambitious in running their business. “Now, I just wanted to make sure of our production routine. No need for big ambitions. Our business has been profitable already. We just need to enjoy it.” (SE12).



I did some research before subscribing to Kite (an inventory tool) for IDR 39.000 (approx. USD 2.65). So far among the others, this is the best and cost-efficient tool for inventory. Even after I found the cheap one, I still failed to use it because I am using my personal phone to do business. I need a new tablet to use this tool. Need to find a way to do it. The team doesn't have time and is not very disciplined to use it either.

(SE1)

Challenges Faced by MEs

The top challenges faced by medium enterprises do not differ much from those faced by small enterprises, but the topmost challenge for WMEs is knowledge, instead of resources. According to the interviews, ME participants already have better access to resources which allows them to explore different types of digital tools to integrate into their business. With the abundance of information about digitalization, some ME participants suggested having been struggling to keep up with the current trends. Some participants had limited knowledge of the existence of various digital tools for their business. Moreover, there was a case where the participant had inaccurate comprehension about what a digital tool can do. "I used to use excel sheets for accounting, but we returned to using hand-

written notes. The reason is that we cannot put our signature on an excel sheet, so we don't know if the expenses are true and who is responsible for that" (ME14). This participant insisted that she could not use a digital tool for accounting because there is no feature to track entry history.

Skills and talent within the team were found to be a challenge in MEs, as it is for SEs, because participants themselves implied an underlying belief that for women to have difficulties with technology is a given. Some cases suggest that they were open to tool propositions made by male teammates and open to being taught how to use it. However, without any such support, it would be difficult for them to adopt digital technology on their own due to their limited knowledge.



The perception is that Moms like me don't understand technology. So, I rely on my general manager, who is male to teach us how to integrate tech into the business.

(SE1)

Opportunities for Digital Transformation

Digital transformation has become a buzzword in business. It essentially refers to a process where the integration of digital technologies triggers a disruption in the way the organization operates and delivers values to customers.³⁴ After investigating contributing factors and challenges associated with the use of digital technology amongst WSMEs participants, the authors modeled the patterns in digital adoption intensity to identify opportunities for digital transformation.

Digital Adoption Intensity



Figure 11: List of Digital Technology Tools Based on the Interview Findings

Digital adoption intensity was modeled by asking the participants if they had adopted digital tools for their business. The list of tools used to create the model is based on the interview findings presented in Figure 2.11. After that, the authors mapped the adoption by scoring how many tools the participants used to determine the digital intensity level from a low, medium, to high by using a simple calculation below:

$$Intensity = n / 22$$

$$0\% < Low Intensity \leq 33\%$$

$$33\% < Medium Intensity \leq 66\%$$

$$66\% < High Intensity \leq 100\%$$

Equation 1: Digital Intensity Level Formula

The authors then matched the results against the number of challenges that the participants had mentioned in the earlier discussion. The results are presented in Figure 2.12.

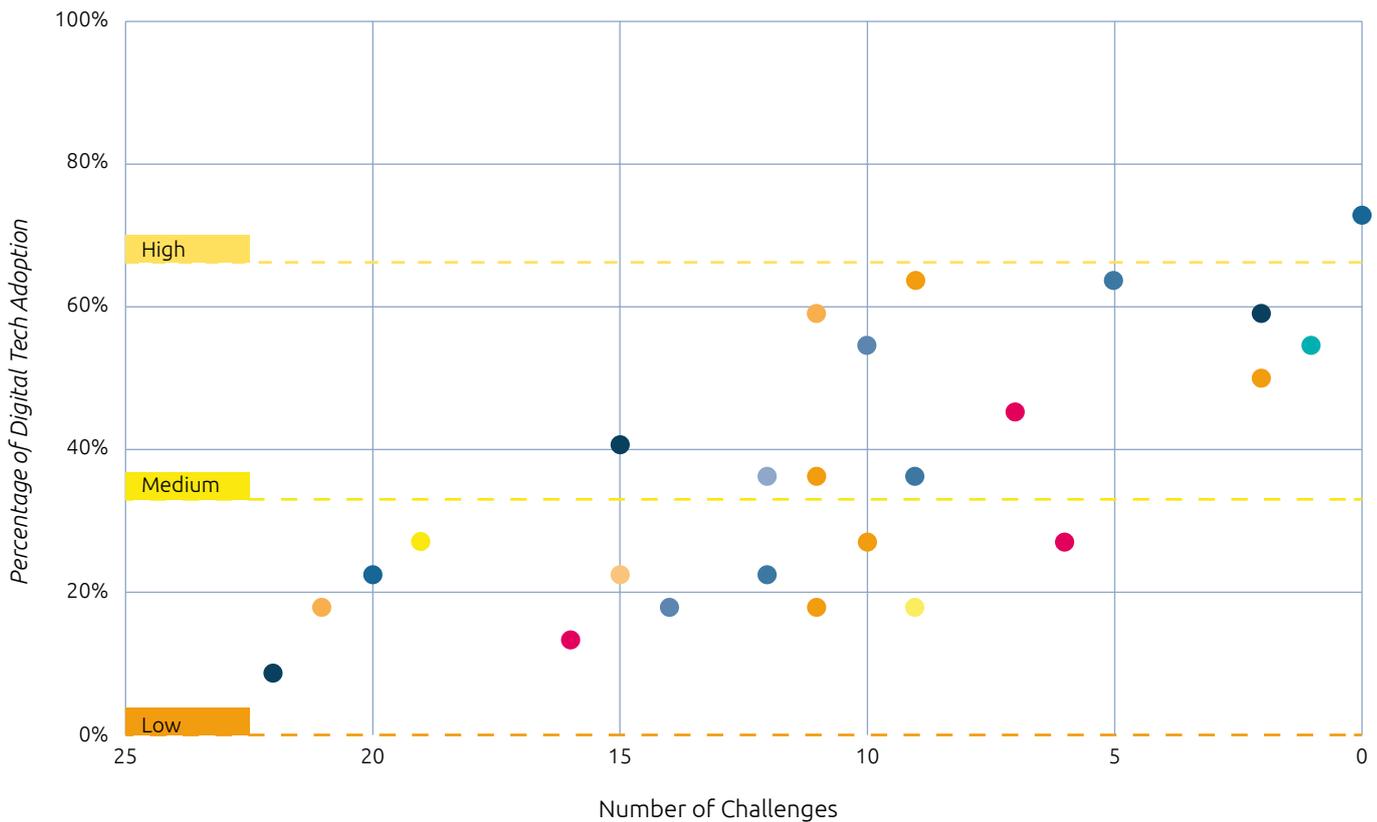


Figure 12: Model of Digital Adoption Intensity amongst WSME Participants

The model of digital intensity above shows the correlation between how much digital technology adoption had occurred and how many challenges had been overcome by the participants. The vertical axis represents the percentage of digital technology adoption, and the horizontal axis represents the number of challenges faced by the participants. The 25 colorful dots represent the 26 individual participants because there are two participants whose scores both in digital technology adoption and challenges are the same.

The figure above shows that 12 WSMEs being in the low level, 12 in the medium level, and 1 in the high level. Generally, it indicates that the more challenges WSMEs are able to overcome, the easier digital adoption happens. Participants in the low level were still faced with quite a number of challenges that hinder their adoption rate. Interestingly, these enterprises at the low level collectively mentioned change management, knowledge, skills, and talent (100 percent average) as the main barriers for

their technology adoption. Companies at this level mostly depend on their founder to make decisions. So, when the founder does not buy into the idea of digitalization, the company is highly unlikely to adopt digital technology.

Based on the findings, WSMEs take different paths to digital adoption. There were no patterns that show what tools were used exclusively by companies at low, medium, or high level. However, the participants in the upper-medium to high level started the transformation journey by creating vision, governance, and IT capabilities to become a company that is ready to grow with technology. According to the interviews, their intentions were clear: 1) they want to secure a larger amount of funding, and 2) they are confident to expand their business. These companies repeatedly built on their capabilities to transform its customer engagement, internal operations, and business models.

Growth vs. Profit Orientation

There were 7 WSME participants who claimed to focus on growth over profit. Interestingly, as suggested by some experts that we interviewed, SMEs that focused on growth tend to adopt technology more intensely than those that only focus on profit.



Based on my observations, startup founders tend to adopt more advanced digital technologies compared to conventional SMEs whose focus is profit only. But I think if I'm not mistaken, there aren't many female startup founders in Indonesia.

(Digital Transformation Expert)

Startups or growth-oriented entrepreneurs focus on the scalability of their business. With digital technology, they prepare their business to become ready for Venture Capital investment. All companies which are at the upper-medium and high level are growth-oriented and when explaining the opportunities that digital technology has for their business, they implied that digital technology is at the center of what they do. 'We will continue to push ourselves to adopt new technologies as long that it's aligned with our needs and goals.'(SE2).

Small vs. Medium Enterprises

The research revealed that ME participants adopted more technologies compared to SE participants. MEs with the highest adoption rate implied that because they now have more resources, they are able to explore different digital tools for their business. At this stage, many of them stated to have a stronger drive to scale up that include: 1) the drive to take care of their staff, 2) responsibilities to investors, and 3) ambition to compete because they have seen and experienced tangible impacts that tech has for their business. In other words, every sub-sector — from raw materials, manufacturing, to service — have benefits of digital transformation.

Exploring New Opportunities

The data shows there are emerging opportunities for digital transformation among the WSMEs participants. However, the opportunities that are available would understandably be different in different contexts, as they would also depend on environmental factors that may enable or hinder the availability of these opportunities, such as social and political conditions, culture, and of course, digital infrastructure. Based on the findings, the authors were able to map the areas in which digital technology has provided opportunities for the WSME participants in Indonesia and what other new opportunities they can explore.

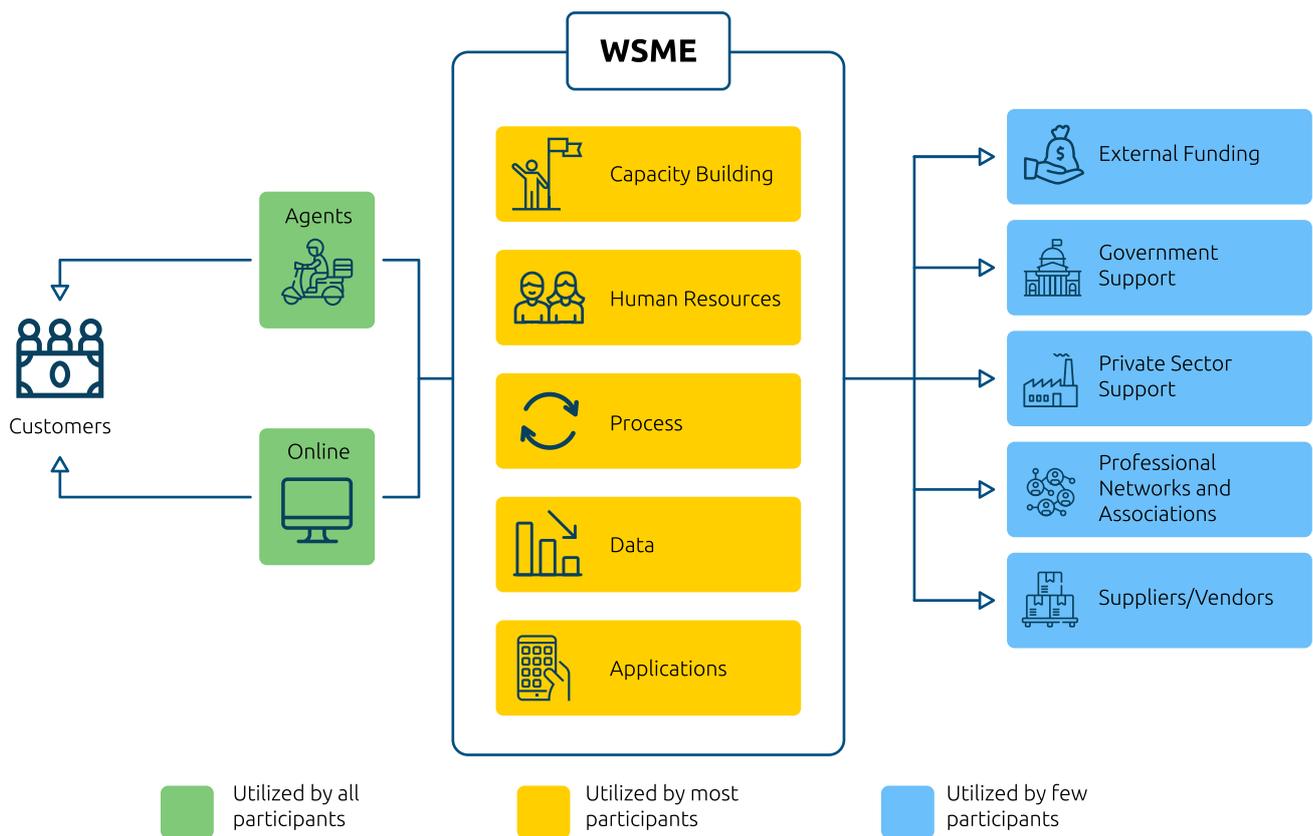


Figure 13: Map of Opportunities in Business Enabled by Digitalization

The digital opportunities that were seen implemented in all WSME participants (green boxes) were used to increase sales and customer outreach. Social media and online marketplaces were frequently mentioned for this purpose and had been enhanced during COVID-19. As a country with the fifth-highest number of hours spent on social media daily³⁵, it comes as no surprise that this particular digital technology is the first stepping stone for WSMEs to digitalize their businesses.

Ideally, WSMEs should have a plan mapped out in order to grow their business. However, many participants stated that their businesses were started organically without any prior planning and with profit at the front and center. They optimized resources that were already available and accessible to them and made decisions as they went along. Nonetheless, even the fact that they took a dive into business and have tried digitalization in small

portions already opens the opportunity to grow the motivation to adopt tech even further in the future. Examples are in the form of the development of websites and mobile applications to suit WSMEs' own specific needs and the use of data analytics to guide decision-making for the business.

As displayed in the diagram above, the integration of digital technology to aid external relations and support the company (excluding connecting to customers) have not been optimally utilized. Yet, there already exist so many digital technologies that can help in these areas. In order to help WSMEs understand these new opportunities, they need to be exposed to inspiring stories of other women who have succeeded in growing their businesses with the aid of technology, for example, Olva Patriani, one of the WSME participants that is featured as a case study in the next section.

WSME Highlight 2: Botanina



Olva Patriani, Co-founder of BOTANINA

Olva Patriani is the Chief Marketing Officer of Botanina (<https://botanina.com/>), a medium enterprise focusing on providing essential-oil-based products made from natural organic ingredients. Botanina was founded on February 15, 2014, with her friend, Agustina Ciptarahayu, after going through a long research and development (R&D) process since 2011. The two co-founders were first drawn to the idea of homecare products after reading a journal article from the United States Environmental Protection Agency (US EPA), which stated that indoor pollution levels were 2-5 times higher than outdoor air pollution levels due to various sources including household cleaning

products, skincare products, air fresheners, etc. They also noticed that many of the natural homecare products available in Indonesia were imported at quite expensive prices. So, she started making products that can be used at home. Botanina has developed 5 product categories: homecare, personal care, baby care, health care, and aromatherapy.

Starting the business in the age of digitalization, Patriani stated that her company has been well-adapted to change and always prepares to adapt consistently to ongoing digital technology inventions and crises (COVID-19).

Patriani further explained that using digital technology has been helping her manage her time for work and family better. From only adopting social media as a marketing tool, Botanina has now upgraded their digital adoption to using HR, financial management, collaboration, and software development tools as well as cloud storage and data analytics. She felt more efficient running her

business and she hoped that she could continue making the company's working culture become more conducive for women. Patriana said she is excited with how far digital technology can take her business to scale. The company now is actively engaged by potential individual investors and venture capital ("VC").



I've had clients question my capability as a female leader before. They associate women with being emotional, but I think men are emotional too. I've seen that they also bring their emotions and their families into consideration during negotiations. Despite all this, I still try my best to stay professional. No doubt, digitalization definitely helped a lot with our business. First, it began by helping us increase our sales and now it's helping keep our work at the office tidy and organized. Communicating with the team and with clients is also easier now. We try to integrate technology as much as we can into the business to achieve our goals and I think this has helped bring us to where we are today, where we're confident enough to start thinking about growth and investments and prepare to move even farther ahead.

(Olva Patriana)

4

The Future of Digital Transformation for WSMEs

Expert Interview Findings

Interviews with 5 experts who specialize in gender-lensed investment, women in business associations, and digital transformation were also conducted (See Appendix A for a list of experts). The interviews were carried out to better understand the relationship between the role of public and private sector support in the WSMEs ecosystem and how that relates to digitalization. This process was also designed to inform the advisory discussion panel later to create recommendations.

Pillar 1: Access to Financing

As digital means of obtaining financing are already relatively available in Indonesia, the experts mostly highlighted the existing challenges that hinder women from digitally accessing financing. Many sources of government aid in the form of funds are already available for SMEs, yet the requirements to apply for such support are often unattainable due to limited digital infrastructure and poor digital literacy. An example provided by an expert in women's associations was that somewhere this year, WSMEs were required to send digital documents to a government website that is not mobile-friendly, yet many WSMEs did not have access to laptops/computers and did not know about mobile scanning applications. As mentioned in the WSME findings, some participants admitted to preferring smartphones for work.

Scientifically, women are known to be more risk-averse and therefore are less likely to explore technologies that are unfamiliar to them, including for financing purposes.³⁶ This attitude in women has also affected their chances of gaining investment opportunities. Due to their more realistic and conservative nature, women often seem less confident compared to their male counterparts, putting them at a disadvantage when competing in pitch presentations to gain investments.



Oftentimes, I hear people saying that female entrepreneurs tend to be more risk-averse. For example, when female founders pitched about their business growth projection, they could sound rather realistic compared to their male counterparts. Men tend to be very confident and energetic. Male founders have this ability to make their growth projections sound so 'wow' and that is what draws investors' attention.

(Gender-lensed Investment Expert)

Pillar 2: Mentoring, Networking, and Skills

Poor digital infrastructure was repeatedly mentioned by experts as an obstacle for WSMEs and this also applies to accessing mentoring, networking, and skills. Low broadband reliability means that access to mentors and especially seminars and training are not received optimally. However, even if digital infrastructure were not a problem, WSMEs would still be faced with other obstacles discussed earlier. According to experts, organizations have experimented holding online networking events for SMEs especially during the COVID-19 pandemic, yet they are deemed to be ineffective as it cannot facilitate organic interaction amongst participants as offline events do.

Pillar 3: Business Processes and Management

According to the experts, many WSMEs need hard evidence of the benefits that digital technologies can bring for their business to be motivated and take the first step to adopt digital technologies. However, the most interesting statement provided by one of the experts was that digitalization of their enterprise could help empower women not only in their businesses but also their daily lives. They stated that by helping to increase business growth and revenue, digitalization ultimately gives women more power and puts them in a better bargaining position towards their families and most of all, their husbands.

Pillar 4: Crisis Management (COVID-19)

Consistent with the findings from the WSME interviews, the experts also stated that digital adoption had played a crucial role in helping WSMEs survive the pandemic. The experts put emphasis on the word 'survive', meaning that the role of digitalization was merely to keep their business running and not to open up opportunities to optimize the situation. Moreover, another expert also mentioned that having a positive cashflow allowed profit-oriented enterprises to adapt to crises better than growth-oriented enterprises due to the fact that they need to constantly raise funds to grow their business.



I have seen this in SEs. They are more empowered and have bargaining power, especially when they have better financial management, have employees, or employ relatives, neighbors to help the business. Their confidence level increases [...] Technology helps, especially during the pandemic. We push our members to attend digital literacy programs such as 'Womenwill' program by Google.

(Women-in-business Associations Expert)

Data Privacy and Security

Data privacy and security was a serendipitous discovery in this research. A few WSME participants that were interviewed had already displayed a good sense of digital awareness along with its advantages and disadvantages, have expressed concerns about online data privacy and security. However, only 4 SE participants articulately expressed these concerns, whereas the other majority of WSMEs did not have such awareness. Throughout the research, both SE and ME participants implied that they do not have enough knowledge to be able to give a credible opinion to explain their fear of data or when they were explaining data security concerns that have affected their digital technology adoption. "I just heard more negatives than positives" (SE8). This is an alarming finding, as data breach occurrences have continuously increased with each year.^{37, 38 & 39} In fact, one expert implied that security breaches have become common in the online marketplace ecosystem.

A digital transformation expert suggested that fintech companies are able to access merchant data through e-commerce. As many marketplace/e-commerce companies host a massive number of merchants, it is possible that fintech companies have access to an equally immense volume of valuable data. However, the authors could not uncover what agreements exist between fintech and marketplace companies, as the three leading companies we had approached refused to be interviewed.

Advisory Panel

The advisory panel started with the discussion around challenges encountered in the WMSEs ecosystem based on insights from the WSME and expert interviews. It was followed by proposing practical and policy recommendations presented after the following analysis.

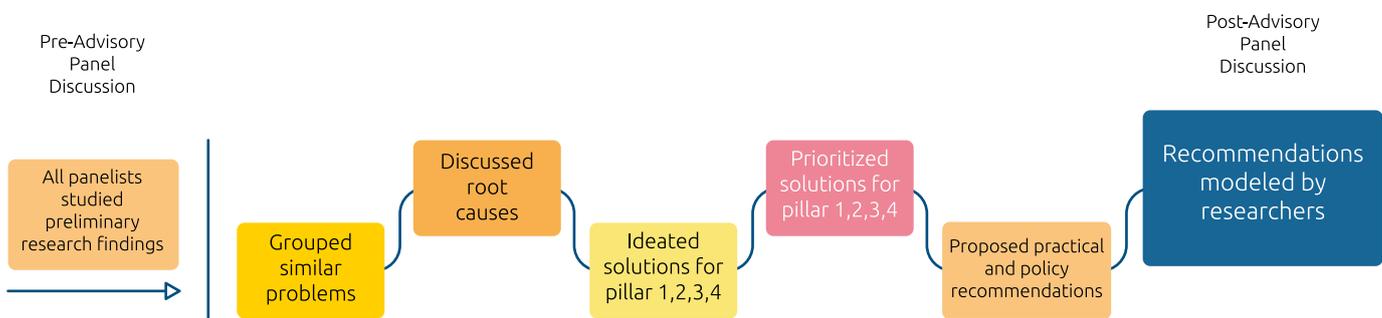


Figure 14: Advisory Panel Method

Lack of Capacity and Motivation amongst WSMEs

During the panel discussion, panelists agreed that all these challenges-lack of knowledge & skills (capacity) and motivation-were the ultimate result of gender-based cultural violence⁴⁰, indirectly affecting digital technology adoption by WSMEs. Johan Galtung explained that cultural violence represents the existence of prevailing social norms that make direct and structural violence seem “natural” or “acceptable”. For example, the belief that women in Indonesia can be paid lower than men because they are considered to be less capable is still prevalent. In 2019, 78.26 percent of women in Indonesia received lower pay than men.⁴¹ Moreover, gender-based domestic violence is still an issue that most women victims are still reluctant to speak up about in public.⁴² This was made worse with the House of Representative officially declining the Elimination of

Sexual Violence Bill proposal in July 2020 after the 8-year long effort done by the National Commission on Violence Against Women to propose the bill.⁴³ Such deeply rooted violence, in combination with women’s risk-averse nature, creates an unfounded fear of technology in women. This is exacerbated by the fact that without tangible evidence of success, it is unlikely for WSMEs to optimize digital adoption in their businesses and worsened by unfamiliar and seemingly alien terminologies used in the field.

Lack of Change Management amongst WSMEs

The authors observed that many of the participants did not follow a well-prepared plan in digitalizing their business, for those who have already adopted digital technology. In line with expert findings, the advisory panel believed that this might be due to the lack of aspiration amongst WSMEs.

Panelists assumed many WSMEs to not have high ambitions for their business, as for many of them, the reason they started their businesses was only as a side project or something to fill their time, and not intended to be an entrepreneur. However, it is possible that the issue is not that WSMEs lack ambition, but have just never thought that being ambitious was an option at all due to pressures from their family or society that impose the idea that women cannot be too focused on business.

WSMEs' Resilience in the Face of COVID-19 as a Reactive Response

Although the participants were found to be resilient during COVID-19, crisis planning management was not part of many of the WSMEs business processes. When presented with this statement, the advisory panelists suggested that this may be due to the limited availability of benchmarking studies around crisis management, and as a result, WSMEs do not have any examples that they can refer to. It was also mentioned during the discussion that crisis management studies are plentiful in other countries, but the panelists assumed that these are not made accessible by the government.

Lack of Information about Government Programs

Mainly through the expert interviews, the authors realized that government programs to support SMEs in adopting digital technology are plenty in Indonesia. However, many WSMEs have no idea of the existence of these programs or have no access to such programs. When presented with this problem statement, the panelists stated that there is currently no integrated one-stop information center where SMEs can access information about programs, training, access to funding, or general WSME-relevant knowledge. The SME policy expert explained that the government, through MCSME has taken a step forward to support SMEs in Indonesia by building an integrated website for all things SME-related.⁴⁴



Digitalization is needed, and that is why MCMSE partnered with LPEM UI to develop

<https://www.ukmindonesia.id/>

.MSMEs can access this platform to search for information about brand certificates, mentorship, and incentives.

(Policy Expert)

The website has been in indefinite moratorium since the authors last checked in September 2020, not allowing SMEs to register their businesses. Therefore, it blocks access to any information that WSMEs should be able to access otherwise. The authors believe that this is ultimately a reflection of how government programs are not developed scalably. Programs and training development seemed to lack prior research on which audience can take the most benefit from each program and how they can reach out to this specific group.

Problems with the Distribution of Government Aids

The authors found that government aid, in financial and non-financial form, is plentiful in Indonesia. However, they are not distributed fairly. An example of this was provided by one of the experts who stated that double aid was delivered to the same SME whereas other SMEs were not able to attain the support at all. This was caused by the fact that some SMEs were registered twice in two different databases while the presence of some SMEs was not even recorded at all. This signals a data synchronisation issue between different sources, causing an imbalance of aid delivery by the government.

With deeper analysis, the authors believe that the issue may run deeper than merely a synchronisation issue. The issues that were raised about the government during the panel discussion were perhaps merely symptoms of more serious fundamental issues. Data mismanagement and uneven aid distribution seem to be hinting at a lack of coordination between governmental organizations and failure to understand the real conditions in the field. Having fallen victim to these errors, it is understandable if WSMEs develop distrust towards the government. During the

advisory panel discussion, one panelist contacted the authors privately to provide an opinion about the government that they preferred not to state publicly to the other panelists. It is possible that this small action was a sign of distrust or perhaps fear of the government.

Apart from having huge opportunities brought about by digitalization, Indonesian WSMEs are likely to continue to face challenges. This calls for the urgent need to build better pro-WSME policies and effective interventions.

Practical and Policy Recommendations

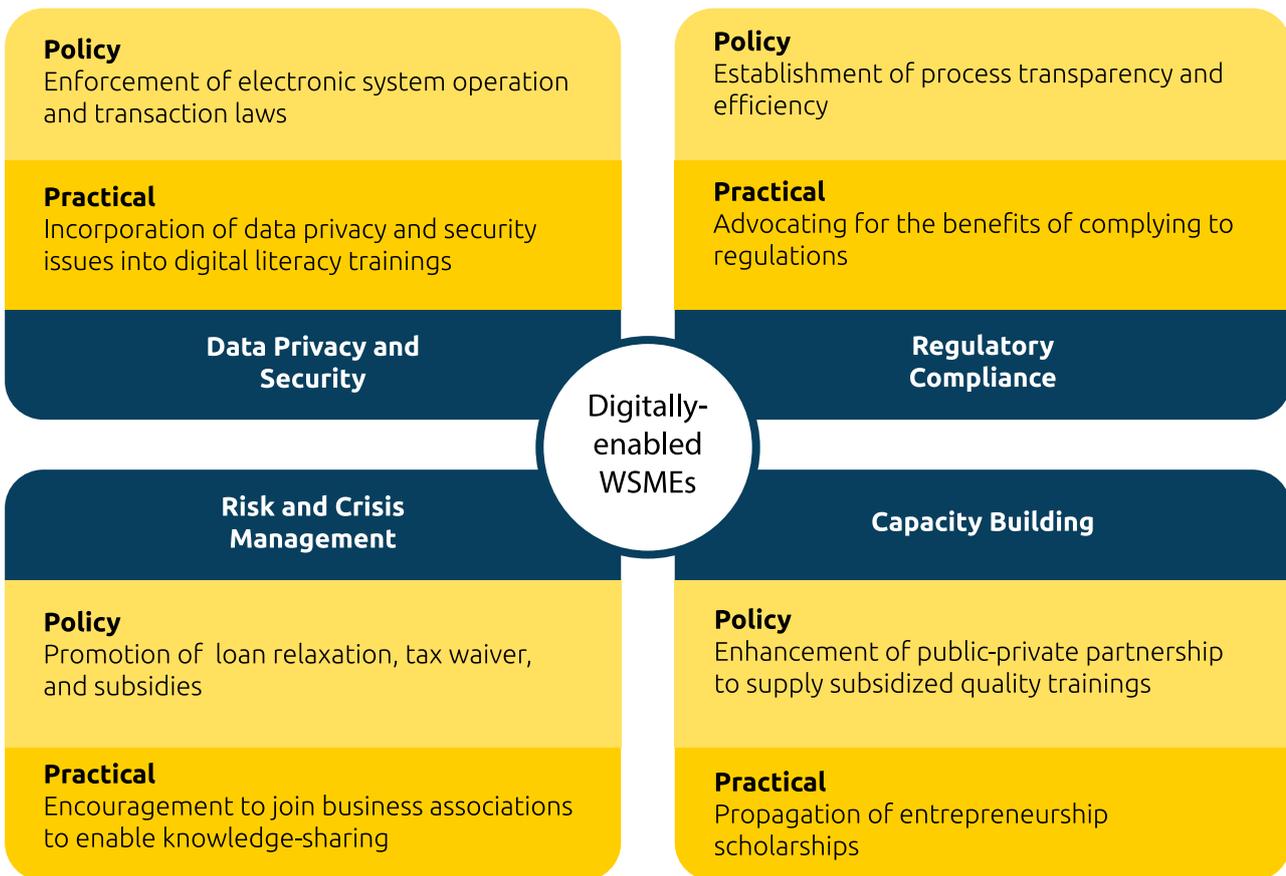


Figure 15: Practical and Policy Recommendations

Regulatory Compliance

These recommendations are to address challenges in Pillar 1: Access to financing and Pillar 3: Business Processes and Management

Indonesia's regulatory and legal frameworks lack information about relevant regulations and coordination between government agencies. For example, the authors observed that 27 percent out of all WSME participants (4 SEs and 3 MEs) have not complied with laws to regulate SMEs, leaving their enterprises unincorporated. They did not see any benefits in following the regulations; in fact, they saw it as a detriment as it would mean they would be obliged to pay taxes. The fact that the process to incorporate their enterprises is hazy and complicated also does not motivate them to be legally compliant. The advisory panelists believe the incorporation issue is still prevalent in the larger WSME ecosystem. If WSMEs choose not to comply with regulations, it will be challenging for them to obtain external funding, be involved in public bid opportunities, and to conduct export-import activities.

Policy recommendations: The panelists proposed that the government should make all regulatory compliance processes more transparent and efficient. The process can be made digitally accessible and scalable, allowing WSMEs to not only search for relevant information but also to register their business, apply for opportunities, and submit documents. Ensuring the scalability of the digital platform is important so that it can serve a large number of WSMEs at the same time. The panelists believe that this can be done if the government optimizes public-private partnerships in the execution of this initiative.

Practical recommendations: The panelists proposed that the private sector, especially women-in-business associations and communities, digital transformation actors, and entrepreneurs in the ecosystem advocate the benefits that can come from complying with the regulations. This can be done by highlighting the stories of other WSMEs who have benefited from being compliant with regulations such as getting prioritized to apply for the government grant scheme, loan relaxation, or tax waiver.

Capacity Building

These recommendations are to address challenges in Pillar 2: Mentoring, Networking, and Skills

Opportunities for WSMEs to improve their skills and knowledge are not scarce in Indonesia, yet because of the abundant information, the participants often felt confused about where to start and needed help in understanding why this can be done digitally and how to do it. Lack of affordable quality training was often mentioned during the panel discussion.

Policy recommendations: The panelists proposed that the government can help to improve this by enhancing public-private partnerships in order to supply subsidized quality training done digitally specifically for women entrepreneurs or their employees.

Practical recommendations: Non-governmental bodies including international agencies, multinational companies, or even women-in-business associations and communities can further support WSMEs by providing short term and long term entrepreneurship scholarships for women to obtain focused knowledge that can help them develop even further. The panelists added, a method that may prove helpful in erasing doubts and fear from digitalization is to expose WSMEs to success stories of digital tech adoption by other women with the hope that this will inspire them to do the same.

Risk and Crisis Management

These recommendations are to address challenges in Pillar 1: Access to Financing and Pillar 4: Crisis Management (COVID-19)

As WSMEs currently do not have any references to benchmark, one way to start may be to experiment with including risk and crisis management education into SME training as a first exposure. Presenting WSMEs with studies on crisis management could be a good next step once they have been introduced to the concept, yet the delivery of such research needs to be communicated in a more simple manner.

Many research and academic findings are written in a way that is not easily understandable for the general public, and there is a need to bridge this gap by reframing the research results into perhaps more easily digestible decks that can be accessed digitally.

Policy recommendations: At the policy level, governments can help overcome this by promoting existing loan relaxations, tax waivers, and subsidies to WSMEs and not only those at the micro-level to help extend the life of these companies during a crisis.

Practical recommendations: As a more preventive measure, WSMEs should be further encouraged to join in business associations—preferably women-focused ones—to enable knowledge-sharing of risk and crisis management strategies.

Data Privacy and Security

These recommendations are to address challenges in all pillars

Many WSME participants were unaware of the risks that come with digitalization, especially with regard to data privacy and security. Indonesia already has laws regulating communication and information in electronic systems and the protection of personal data in electronic systems (see Appendix C). However, the consequences of violating these laws are not strongly enforced. For example, digital business actors or Electronic System Operators (ESOs) that conduct digital services and activities in Indonesia are required to register and get a legal operating certificate.⁴⁵ However, since the law was enacted in 2014, only less than 3,000 digital platforms were registered.⁴⁶ According to the laws, ESOs who do not register will be imposed with administrative sanctions in the form of a temporary suspension, written warning via email, and eventually termination of access.

Policy recommendations: The panelists proposed for enforcement of electronic system operation and transaction laws. The government's role in this is, of course, to be more firm in enforcing, monitoring, and evaluating the electronic system operation and transaction laws.

Practical recommendations: WSMEs mentors and trainers can take a different approach to the problem by incorporating data privacy and security issues into digital literacy training to provide WSMEs with sufficient knowledge to protect themselves and their customers.

Substantially, the advisory panel discussion was crucial in analysing problems, identifying opportunities, and proposing both practical and policy recommendations to the WSMEs ecosystem in Indonesia.

5

Conclusion

The pace of change is speeding up, and technology is improving at an exponentially faster rate. Undoubtedly, technological growth is changing the economic environment in Indonesia, and consequently affecting WSMEs, whether they like it or not. Although digital technology was adopted by all of the WSME participants to different extents, the authors found that they were still faced with challenges in integrating digital tools into their business. Lack of knowledge, resources, and skills were the top three challenges that hindered WSME participants from accessing opportunities provided by digitalization.

Some digitalization opportunities have already been utilized by the participants, such as the use of social media and online marketplaces to increase their sales and revenue. However, many other opportunities are still waiting to be utilized. We've seen that several, but not all, WSMEs have begun to adopt digitalization into their business processes. However, we've seen very few cases of digital adoption to help them obtain external funding, connect with mentors, or gain support from the private or public sector.

Having understood the problems and unexplored opportunities for WSMEs to adopt digitalization, the authors were able to form recommendations together with experts and leading female entrepreneurs to support WSMEs in their digitalization journey. They were able to boil down the main issues that WSMEs need support into four areas: 1) regulatory compliance, 2) capacity building, 3) risk and crisis management, 4) data privacy and security, and provide practical and policy recommendations for each one.

Note should be taken that these recommendations will go in vain without the cooperation of various parties with authority to nurture an environment where WSMEs are able to thrive. Collaborations between the government, private sector, and researchers will allow us to deeper understand the gender-related challenges that WSMEs in Indonesia are confronted with and provide targeted solutions to overcome them, especially in the face of the current pandemic.

6

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Appendices

Appendix A: Indonesia's Experts and Advisory Panelists



M. Andy Zaky (Expert Interview)

M. Andy Zaky is the Vice Secretary of WANTIKNAS (National ICT Council) who has experience in the tech industry. He actively invests and has become a mentor and/or member of board of several digital startups such as Agate International, Good News From Indonesia, KLINIKOO, etc. He is also currently taking the role as Secretary of MIKTI (Indonesia Digital Creative Industry Community).



Benedikta Atika (Expert Interview and Advisory Panel)

Atika is the Impact Investment Lead at ANGIN. On top of being in charge of sourcing investment opportunities towards social enterprises and exploring impact investment schemes with clients, Atika has also been involved in several research projects and delivering training with topics of social enterprises, angel investing, and gender lens investing. Prior to ANGIN, she had worked in the corporate finance and capital market for 3 years, before moving to the impact space. In 2018, she worked with Solve Education!, an education technology organisation, and Wattblock, a Sydney-based clean energy startup in 2018. She earned a master's degree in Business Strategy and Social Enterprises from the University of New South Wales, Australia, being funded by Australia Awards long-term scholarship from DFAT.



Mia Ariyana (Expert Interview and Advisory Panel)

A trainer, researcher, and Executive Director of ASPPUK (Association of Women in Small Micro Business Assistance), Mia Ariyana strictly focuses on women in small and micro business planning and strategies issues on their livelihood, strengthening of women financial institution, gender analysis and budgeting, and reproductive health and sexuality rights. The issue of women's empowerment and economics as well as the sustainability of the lives of marginalized groups is an issue that has come to her attention since she first worked at an NGO, in 2000. She strongly believes that gender justice and equality must be fought for a better life for all marginalized groups, which so far throughout the world, is still neglected.



Vivi Susanti (Expert Interview)

Vivi Susanti is a representative of the Central Representative Council of Indonesia's Association of Women's Enterprises (IWAPI). She has years of experience in the field of women entrepreneurship and mentorship for women. Vivi has been actively speaking on behalf of IWAPI to advocate for the development of women-owned MSMEs in Indonesia.

N/A

Anonymous Representative (Expert Interview)

Lead Relationship Officer of a multinational tech company that runs entrepreneurship programs for women and digital transformation programs for MSMEs in Indonesia.

**Nilam Sari Setiono (Advisory Panel)**

Nilam is the owner & Founder of PT Baba Rafi Indonesia, established in 2003. Throughout her journey as an entrepreneur, she has been awarded with various awards, namely Best Womenpreneur by Women's Obsession Awards and Winner for Best Practice in Online to Offline Forum Competition between APEC Country, to name a few. She has also published a book titled "Womenpreneur", telling the story of how she developed her journey from one outlet to 1,300 outlets in 9 countries.

**Wilda Yanti (Advisory Panel)**

Mother to 3 children, Wilda Yanti is also the founder and CEO of PT. Xaviera Global Synergy, a company in the environmental sector. As a social entrepreneur, she focuses on tackling waste issues by doing waste management at the source in order to reduce waste that is being sent to landfills. As a result of her work, she was awarded Woman Entrepreneur Of The Year 2018 by Femina and Ernst & Young.

**Hary Febriansyah (Advisory Panel)**

Hary Febriansyah, Ph.D is an Assistant Professor at the School of Business and Management Institut Teknologi Bandung (SBM-ITB) under the Ministry of Research and Higher Education, Republic of Indonesia, since 2006. During this period, Hary has taken responsibility for (1) Teaching on Master of Business Administration and Master of Science in Management Program; (2) Research projects on business-industry collaboration; and (3) Conducting training and consultancies services that benefits local communities. Hary is the Director of center of Knowledge for Business Competitiveness in SBM-ITB (since 2016) and the Vice President for Program on Knowledge Management Society Indonesia (KMSI).

**Muhammad Nur (Advisory Panel)**

Muhammad Nur, S.E has a background in Economics and is currently the Head of the Business Restructuring Standardisation Department of the Ministry of Cooperatives and Small and Medium Enterprises. During the advisory panel, he was also accompanied by one of his staff.

**Rendi Febriansyah (Advisory Panel)**

Rendi Febriansyah is a general manager of Indonesia Digital Creative Industry Community (MIKTI). A nonprofit organization functioned as a gathering place for all people who pay attention to the development of Digital Creative Industries in Indonesia. He is passionate about the management of information technology related to business needs and disruption issues. He has been actively involved in the mentoring programs for SMEs, especially in the creative industries.

Appendix B: Indonesia’s Data Collection and Analysis

SME Criteria

	Myanmar	Indonesia	Cambodia	Malaysia
SE	Approx. Up to USD 74,000 for wholesale and service Approx. Up to 37,000 for retail and other	Approx. USD 20,000 to USD 170,000	Approx. USD 50,000 to USD 250,000	Approx. USD 72,000 to USD 720,000
ME	Approx. USD 74,000 to USD 222,000 for wholesale Approx. USD 74,000 to USD 148,000 for service Approx. USD 37,000 to 74,000 for retail and other	Approx. USD 170,000 to USD 3.4 million	Approx. USD 250,000 to USD 500,000	Approx. USD 720,000 to USD 4.8 million

Data Analysis

<p>Stage 1: Transcribing</p> <p>After conducting the interviews, the authors transcribed the recording to a word document verbatim (word for word) and translated key findings.</p>	<p>Stage 2: Coding</p> <p>The authors coded the data using the four-pillar guideline to group the data into themes. At this stage, the authors stayed open-minded and let the data dictate the emerging themes and issues.</p>	<p>Stage 3: Frameworking</p> <p>The two main authors involved in this project met to compare the labels applied and agree on a set of codes to apply to all subsequent transcripts. Several iterations have taken place to avoid ignorance of data that does not fit into the four-pillar guideline.</p>
<p>Stage 4: Indexing</p> <p>The authors used a numerical system to identify portions or sections of the data that correspond to a particular theme. For example, the authors used 0 to indicate a digital tool being unused and 1 to indicate a digital tool being used by the participants.</p>	<p>Stage 5: Charting</p> <p>Data were summarized by category under each pillar from each transcript while retaining the original meanings and ‘feel’ of the interviewees’ words especially since the data was collected in Bahasa Indonesia. For example, when translating the word “terdorong”, instead of using “pushed” in English, the authors used “being inspired to” because in this context, the person used the word in a positive connotation.</p>	<p>Stage 6: Interpreting</p> <p>The authors generated typologies, interrogated prior concepts, and mapped connections between categories to explore relationships and/or correlation.</p>

Appendix C: Overview of Relevant SME and Information Communication and Technology (“ICT”) Regulations in Indonesia

Title	Outline
Law No.7/1992 and Law No.10/1998 (amendment) on Banking	Regulation on Banks
Law No.20/2008 on Micro, Small and Medium-sized Enterprises	MSME definition and the government obligation to promote the MSME sector
Presidential Decree No.2/2008 on Guarantee Institutions	Regulation on credit guarantee and re guarantee institutions
Regulation No.222/2008 and No.99/2011 on Guarantee Institutions and Reguarantee Institutions	Regulation on credit guarantee and re guarantee institutions (Ministry of Finance)
Law No.17/2012 on Cooperatives	Regulation on cooperatives
Presidential Regulation No.9/2009 on Financing Institutions	Regulation on non-bank financial institutions (NBFIs)
Law No.8/1996 on Capital Market	Regulation on capital markets
Bapepam-LK Rule No.IX.C.7	SME definition in capital markets
Communication and Informatics Ministerial Regulation No.20/2016	Protection of personal data in electronic systems
Law No. 11/2008 on Information and Electronic Transactions	Regulation of communication and information in electronic systems
Communication and Informatics Ministerial Regulation No.36/2014	Electronic System Operator Registration Procedures
Law No. 19/2016 as Revision of Law No. 11/2008 on Information and Electronic Transactions	Protection of personal data in electronic systems
Communication and Informatics Ministerial Regulation No.7/2019	Business Licensing Services in an Integrated Information and Communication Sector
Regulation no.71/2019 on Electronic Transaction and System Operation	Regulation on the implementation of electronic system, electronic agent, electronic transaction, electronic certification, reliability certification institutions as well as domain name management.

