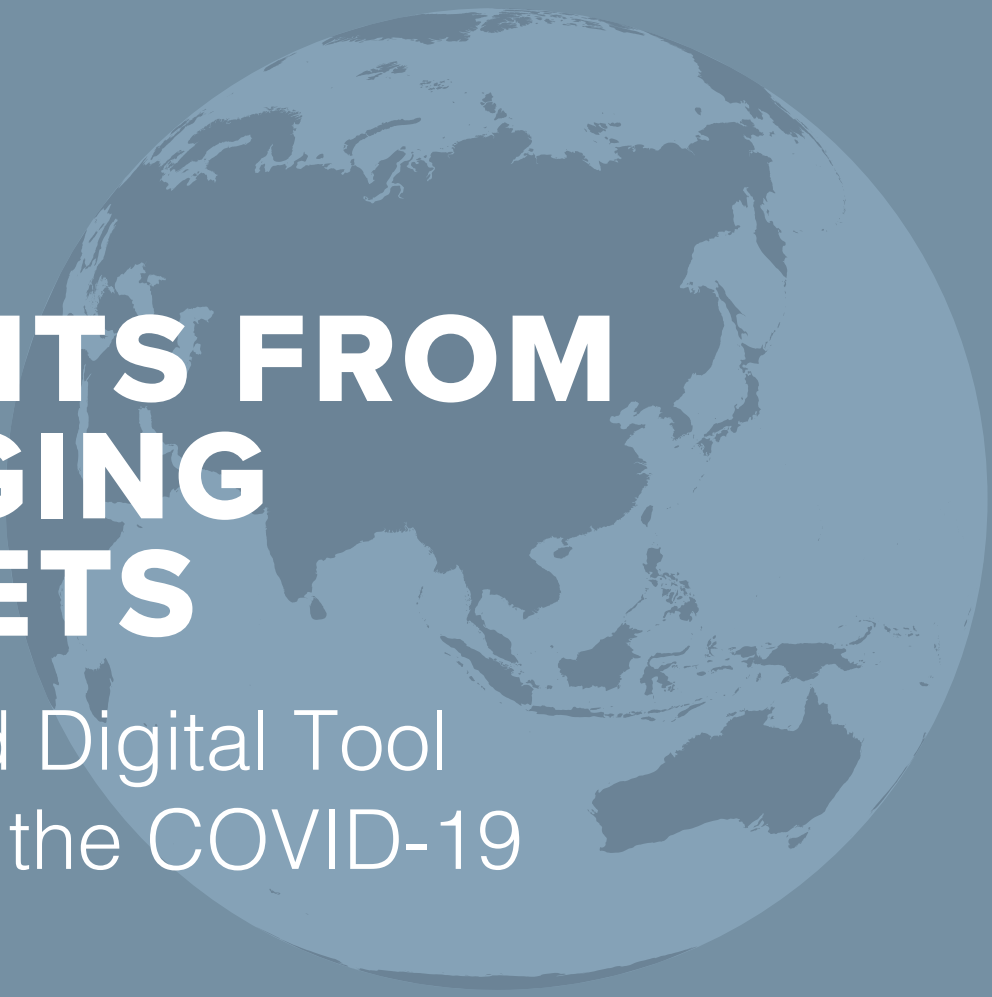

INSIGHTS FROM EMERGING MARKETS

MSMEs and Digital Tool Use amidst the COVID-19 Pandemic

INDONESIA COUNTRY BRIEF

DAI

Shaping a more livable world.

November 2021

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This Final Report has been prepared solely for the purposes of studying the utilization of digital technologies in the small and medium enterprise sector in developing markets. This includes the business implications of this usage of digital technologies for accelerating and facilitating economic development, inclusion, resilience, and growth post the COVID-19 pandemic, as set out in the Contract.

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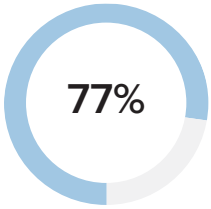
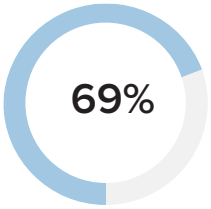
EXECUTIVE SUMMARY

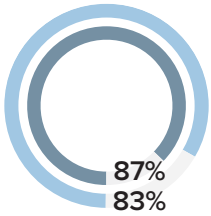
KEY FINDINGS:



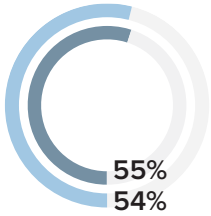
A large majority (77 percent) of surveyed micro, small, and medium enterprises (MSMEs) had used digital tools for business purposes in the past year during COVID-19.



Online respondents looked favorably on digital tool use during the pandemic: more than half (69 percent) of surveyed online MSMEs reported that digital tools were important or essential to keeping their business running during COVID-19.



Enterprises recognized the importance of new digital tools during COVID-19: surveyed online MSMEs cited that Facebook apps (87 percent), and specifically WhatsApp (83 percent), helped them adapt to the COVID-19 environment.



Social media tools played a role across the spectrum of business functions, with WhatsApp cited as a useful tool across multiple business activities: more than half of online MSMEs reported recently using WhatsApp for communication-oriented business activities, specifically communicating with customers (55 percent) and suppliers (54 percent).

Indonesia is the largest economy in Southeast Asia, with a large micro, small, and medium enterprise (MSME)[iii] sector underpinning its consistent growth until the COVID-19-induced economic slowdown in 2020.[1] By allowing some MSMEs to quickly pivot online and maintain their core business functions, digital tools (defined here as internet-based technologies) have become increasingly important to Indonesia's MSMEs during the pandemic.[2] A new survey conducted by DAI and Ipsos in June 2021 found that a large majority (77 percent) of surveyed MSMEs were online, meaning that they had reported using digital tools for business purposes over the past year during COVID-19.[iv] Additionally, more than half (69 percent) of surveyed online MSMEs reported that digital tools were important or essential to keeping their business running during COVID-19.

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i Not all MSMEs who reported ever using digital tools for business purposes were considered "online" for the purposes of this survey. Surveyed MSMEs that did not report using digital tools in the past year were considered "offline," regardless of their use of digital tools over a year ago and/or prior to the COVID-19 pandemic. Because this subset of MSMEs no longer actively uses digital tools, they are not considered online MSMEs.

ii The term "Facebook apps" refers to Facebook, WhatsApp, and Instagram.

iii This brief uses the term "micro, small, and medium enterprises" (MSMEs) to refer to the businesses surveyed for this research, in line with terminology used by multilateral institutions such as the International Finance Corporation and the United Nations. Indonesia's Central Bureau of Statistics defines microenterprises as employing 1-4 people, small enterprises 5-19 people, medium-sized enterprises 20-99 people, and large enterprises 100+ people. However, DAI applied a standardized definition for consistency across all survey countries, based on the number of full-time employees, including the respondent: micro (1 employee), small (2–9 employees), and medium (10–249 employees).

iv This survey collected evidence directly from 1,044 MSME owners and top-level managers in Indonesia to understand how MSMEs have used digital tools to carry out business activities, how their digital tool use changed during the COVID-19 pandemic, and the challenges both offline and online MSMEs face in using digital tools.

Enterprises recognized the importance of embracing new digital tools during COVID-19. A large majority (87 percent) of surveyed online MSMEs cited that Facebook apps recently helped them adapt to the COVID-19 environment, and 83 percent specifically cited WhatsApp. Online MSMEs reported using Facebook apps across the spectrum of business activities, such as marketing to customers (52 percent), communicating with customers (58 percent), and communicating with suppliers (56 percent). Additionally, more than half of online MSMEs reported recently using WhatsApp for communication-oriented business activities, specifically communicating with customers (55 percent) and suppliers (54 percent).

Many surveyed MSMEs reported needing more knowledge or know-how about digital tools. A lack of knowledge was the most frequently reported difficulty that all surveyed MSMEs reported facing in using digital tools, at 48 percent for online MSMEs and 46 percent for offline MSMEs. Thus, expanding access to digital literacy programming will be an important way to bring the benefits of digital technology to a greater number of Indonesian MSMEs. Additionally, online and offline MSMEs also reported facing different sets of challenges: online MSMEs reported poor or no internet connectivity as their second most challenging difficulty, while offline MSMEs reported a lack of customer interest. This difference highlights the need for targeted interventions that directly address these different challenges in order to engage the full range of Indonesia's MSMEs to gain the benefits of digital tools.

With concentrated efforts by policymakers and other stakeholders to upskill MSMEs in their ability to use digital tools and to address the key barriers faced by both online and offline MSME segments, Indonesia's MSME sector will be well-positioned to integrate and harness the power of digital tools to improve business outcomes and build resilience to future economic shocks. These efforts will ensure that entrepreneurs and business owners across the MSME sector can equitably access and use digital tools to support key business functions. This will, in turn, enable Indonesia to accelerate its inclusive economic growth outcomes aligned to the United Nations Sustainable Development Goals (SDGs), a collection of 17 interlinked global development goals agreed to by United Nations Member States in 2015.

METHODOLOGY OVERVIEW

This research was conducted as part of a broader cross-national study of MSME digital tool usage across emerging markets in South America, South Asia, and Southeast Asia. This report provides an overview of findings from face-to-face surveys that Ipsos conducted with 1,044 micro, small, and medium enterprises (MSMEs) in Indonesia via computer-assisted personal interviewing (CAPI) from June 5-27, 2021. Eligibility for the survey was restricted to owners or top-level managers of businesses with 249 or fewer employees operating from a storefront, booth, or with signage. As such, home-based businesses and other businesses without obvious storefronts, booths, and/or signage were not captured in the sample. Official statistics from the Republic of Indonesia's Ministry of Cooperatives were used to allocate the sample across three categories: micro (one employee), small (2-9 employees), and medium (10-249 employees) businesses.[v] A random walk method was implemented to conduct interviews in urban and rural areas of 11 of Indonesia's 34 provinces, to capture businesses across key segments, including subnational geography, owner gender, and business sector. Due to the limited geographic scope of the survey, findings and results reported here are not nationally representative of Indonesia's MSME sector. The final survey results presented in this report were weighted based on strata and differences in response rates by provinces, urban-rural geography, and gender of survey respondent. A complete explanation of the sample design and research methodology is found in Appendix I.

v Across all business size groupings, employees include the respondent (an owner or top-level manager of the MSME), any full-time employees or workers, and any part-time or seasonal employees or workers

INTRODUCTION AND BACKGROUND

Indonesia is the largest economy[3] in Southeast Asia, with a large micro, small, and medium enterprise (MSME)[vi] sector underpinning its consistent growth until the COVID-19 induced economic slowdown in 2020.[4] By allowing some MSMEs to quickly pivot online and maintain their core business functions, digital tools (defined here as internet-based technologies) have become increasingly important to Indonesia's MSME community during the pandemic.[5]

A new survey conducted by DAI and Ipsos in June 2021 collected evidence directly from 1,044 MSME owners and top-level managers in Indonesia to understand how MSMEs have used digital tools to carry out business activities, how their digital tool use changed during the COVID-19 pandemic, and the challenges both offline and online MSMEs faced in using digital tools. Research findings also delve into differences in digital tool use across key business segments within Indonesia, such as women-owned, rural, and MSMEs in specific business sectors.

When entrepreneurs across the MSME sector can equitably access and use digital tools in support of key business functions, Indonesia will accelerate its inclusive economic growth outcomes aligned to the United Nations Sustainable Development Goals (SDGs), a collection of 17 interlinked global development goals agreed to by United Nation Member States in 2015.

How This Research Aligns with the Sustainable Development Goals (SDGs)

In 2015, United Nations Member States adopted 17 Sustainable Development Goals (SDGs) as a cornerstone of their 2030 Agenda for Sustainable Development, articulating a shared vision of urgent global priorities for the planet and its people. Recognizing the importance of their urgent call to action, this survey framework and findings tie back to multiple SDGs to inform policy and programs targeting these global goals. After assessing how online and offline MSMEs conducted basic business functions, the survey identified challenges that such MSMEs face in regard to their digital tool usage, or lack thereof. These insights tie to SDG 9: Industry, Innovation, and Infrastructure, which calls for a significant increase in access to information and communications technology and for universal and affordable internet access. The survey also looked at how online MSMEs used digital tools for business purposes; specifically, it explored how their digital tool usage changed during the COVID-19 pandemic. By examining how MSMEs developed their economic resilience through the use of digital tools during the pandemic, this line of inquiry links to SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth. Reporting on the women-owned MSME segment also sheds light on SDG 5: Gender Equality, with women-led enterprises using digital tools to enter the marketplace and contribute to the global economy. Similarly, reporting on the manufacturing and industry sector provides insights on SDG 9: Industry, Innovation, and Infrastructure, and reporting on the agriculture and food production sector aligns to SDG 2: Zero Hunger and SDG 12: Sustainable Production and Consumption. By concluding with suggested interventions for public, private, and development sector actors to address MSME challenges in using digital tools, the spirit of the survey embodies SDG 17: Partnerships for the Goals.

vi This brief uses the term "micro, small, and medium enterprises" (MSMEs) to refer to the businesses surveyed for this research, in line with terminology used by multilateral institutions such as the International Finance Corporation and the United Nations. Indonesia's Central Bureau of Statistics defines microenterprises as employing 1-4 people, small enterprises 5-19 people, medium-sized enterprises 20-99 people, and large enterprises 100+ people. However, DAI applied a standardized definition for consistency across all survey countries, based on the number of full-time employees, including the respondent: micro (1 employee), small (2–9 employees), and medium (10–249 employees).

COVID-19 AND MSMEs IN INDONESIA

As Southeast Asia's largest economy, Indonesia experienced a 5 percent annual economic growth rate between 2000 and 2019, with MSMEs serving as the country's economic backbone.[6] Its MSME sector makes up 99.9 percent of total enterprises, employs 97 percent of the country's labor force, and accounts for 62 percent of GDP.[7] According to 2016 Asian Development Bank figures, 64 percent of Indonesia's MSMEs operate in retail, 17 percent in manufacturing, 11 percent in other services, and 8 percent in transportation and telecommunications.[8]

The COVID-19 crisis presented significant challenges for Indonesia's economy. A 24 percent drop in consumer demand[9] led Indonesia into its first recession since 1998, with GDP declining by more than 2 percent in 2020.[10] In June 2020, the International Labour Organization reported that the pandemic led to two out of every three Indonesian SMEs (small and medium enterprises) to either temporarily pause business operations or permanently shut down.[11] In June 2021, moreover, Indonesia's COVID-19 cases rose to their highest levels since the pandemic began, signaling that the pandemic's impact on the economy will continue for the foreseeable future.[12] The Indonesian government has identified several priority sectors to support Indonesia's recovery from COVID-19. For example, the Ministry of Tourism and Creative Industries is emphasizing the role of Indonesia's creative economy in pandemic response, with a focus on subsectors including *kriya*/handicrafts, *kuliner*/food service, and *fesyen*/fashion, among others.

During the pandemic, Indonesia's MSMEs have increasingly entered the country's well-developed e-commerce sector and turned to social media for online marketing.[13] Per a February/March 2021 Ipsos online poll featured in Deloitte's May 2021 *Dynamic Markets* study, 88 percent of small businesses in Indonesia who use personalized advertising on Facebook or Instagram reported that it is important for the success of their business.[14] Customers, too, are rapidly adapting to the shift online. According to a 2020 Ipsos Public Affairs survey featured in Deloitte's July 2020 *Digital Tools in Crisis and Recovery: Consumer Report,* 61 percent of Indonesian respondents switched to new small businesses and reported social media helped them to discover these new small businesses.[15] From both a customer and business perspective, digital tools are increasingly important in adapting to the COVID-19 environment.

SAMPLE OVERVIEW

This survey had 1,044 MSME respondents comprised of business owners and top-level managers; the below percentages provide detail on the sample.

Gender

66% of MSMEs reported that the business had **female owner/s**

53% of of MSME respondents were **male**

47% of MSME respondents were **female**

Urbanicity

58% of MSMEs were located in **urban areas**

24% of MSMEs were located in **rural areas**

18% of MSMEs were located in **suburban areas**

Sector

27% of MSMEs reported that their primary product or service was in the **hospitality** sector

27% of MSMEs reported that their primary product or service was in the **manufacturing and industry** sector

18% of MSMEs reported that their primary product or service was in the **retail and e-commerce** sector

18% of MSMEs reported that their primary product or service was in the **agriculture and food production** sector

2% of MSMEs reported that their primary product or service was in the **professional services** sector

Customer base

77% of MSMEs reported that their business primarily served consumers

19% of MSMEs reported that their business served both businesses and consumers

4% of MSMEs reported that their business primarily served other businesses

Business owner education

92% of MSMEs had business owners with a secondary education or higher

8% of MSMEs had business owners with less than a secondary education

Business owner age

63% of MSMEs had business owners aged 18-44

36% of MSMEs had business owners aged 45+

Bank account access

70% of MSMEs reported that they had access to a bank account

MSMEs AND DIGITAL TOOL USE: SNAPSHOTS IN TIME

MSMEs in Indonesia are increasingly adopting digital tools in their business practices: the use of digital tools for business purposes rose in the past year during COVID-19. Both Facebook apps and mobile banking platforms[vii] were frequently used by surveyed MSMEs, with a mobile-centric approach in which a nearly all of online MSMEs primarily used their mobile phones to connect to the internet.

Use of digital tools for business purposes rose in the past year during COVID-19. In the past 30 days, usage has returned to pre-COVID-19 levels:[viii]

74% of MSMEs reported that they had ever used digital tools for business purposes **prior to the COVID-19 pandemic**

77% of MSMEs reported that they used digital tools for business purposes **in the past year** during COVID-19

75% of MSMEs reported that they used digital tools for business purposes **in the past 30 days**

Mobile banking and e-commerce were the most frequently used digital tools by MSMEs during all time periods, with increases during COVID-19:

32% of MSMEs reported that they had ever used digital payment tools for business purposes **prior to the COVID-19 pandemic**

35% of MSMEs reported that they had used digital payment tools for business purposes **in the past year** since COVID-19

33% of MSMEs reported that they had used digital payment tools for business purposes **in the past 30 days**

21% of MSMEs reported that they had ever used e-commerce websites for business purposes **prior to the COVID-19 pandemic**

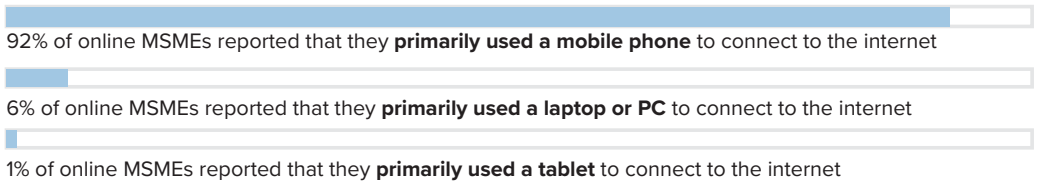
23% of MSMEs reported that they had used e-commerce websites for business purposes **in the past year** since COVID-19

20% of MSMEs reported that they had used e-commerce websites for business purposes **in the past 30 days**

vii Mobile banking as used in this brief refers to both mobile banking and digital payments

viii Difference in use of digital tools for business purposes in the past year and use of digital tools for business purposes prior to COVID-19 is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$. Difference in use of digital tools for business purposes in the past year and use of digital tools for business purposes in the past 30 days is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

Almost all online MSMEs used mobile phones to connect to the internet:



KEY INSIGHTS FOR POLICYMAKERS

Survey findings demonstrated that MSMEs in Indonesia were adopting digital tools as a key part of their business practices. A larger percentage of MSMEs reported using digital tools in the past year (77 percent) as compared to prior to the COVID-19 pandemic (74 percent).[ix] Digital tools such as Facebook apps and mobile banking have seen some of the largest increases over time among surveyed MSMEs. In terms of mobile banking, 32 percent of MSMEs reported that they had ever used digital payment tools for business purposes prior to the COVID-19 pandemic, which increased to 35 percent in the past year during the pandemic, then dipped back down to 33 percent in the past 30 days. This evidence demonstrated that surveyed MSMEs were willing to use digital tools, providing an important opportunity and opening for public, private, and development sector stakeholders to facilitate the full-fledged digital transformation of Indonesia's MSME sector. Additionally, despite a August 2021 report from ISEAS-Yusof Ishak Institute, a Singapore based research institution, reporting that Indonesia's e-commerce sector has grown in user popularity and market transactions during the pandemic,[16] our survey results did not indicate a noticeable increase in MSMEs usage of e-commerce platforms between the three time periods.

More specifically, 21 percent of online MSMEs reported using e-commerce platforms for business purposes prior to the pandemic, increasing to 23 percent during the past year, and decreasing to 20 percent in the past 30 days. This could indicate MSMEs were not as integrated into Indonesia's e-commerce sector during the pandemic, but rather other businesses were driving the e-commerce sector's growth.

Throughout emerging markets, mobile phones are a key way for individuals to access the internet.[17] According to the survey results, online MSMEs in Indonesia were no exception. Almost all online MSMEs (92 percent) reported that they primarily used mobile phones to connect to the internet while only a very small minority used either a laptop or tablet Given the near ubiquity of mobile phones in Indonesia.[18] public, private, and development sector stakeholders could look for opportunities to enhance MSMEs' use of mobile internet as an accessible 'on ramp' for expanding digital tool use amongst offline MSMEs.

ix Difference in use of digital tools for business purposes in the past year and use of digital tools for business purposes prior to COVID-19 is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

HOW MSMEs MANAGE KEY BUSINESS ACTIVITIES

Surveyed MSMEs used a variety of both online and offline tools to manage business activities. However, offline methods had a strong foothold in MSMEs' operations, suggesting that digital tools augmented and amplified, rather than replaced, more traditional offline methods.

An interview with Meybi, the owner of MSME Timor Moringa, illustrates how one small business in Indonesia is using digital tools like WhatsApp to conduct key business functions, including interacting with customers across Indonesia. Meybi noted that during the pandemic, Facebook apps allowed her to pivot online and increase her sales. See page 16 for full case study.

WhatsApp was a useful tool across multiple business activities for online MSMEs[x]:

47% of online MSMEs reported that they used WhatsApp to **market to customers** in the past 30 days

55% of online MSMEs reported that they used WhatsApp to **communicate with customers** in the past 30 days

54% of online MSMEs reported that they used WhatsApp to **communicate with suppliers** in the past 30 days

37% of online MSMEs reported that they used WhatsApp to **conduct customer research** in the past 30 days

29% of online MSMEs reported that they used WhatsApp to **hire or find new employees** in the past 30 days

x Other answer options included don't know or refused.

A higher percentage of urban MSMEs reported using digital tools than suburban and rural MSMEs, whose most cited difficulties were internet connectivity

According to survey results, a higher percentage of MSMEs in urban areas used digital tools for business purposes compared to MSMEs in suburban and rural areas. For example, 78 percent of urban based MSMEs used digital tools for business purposes in the past 30 days, while 72 percent of MSMEs in rural areas and 70 percent of MSMEs in suburban areas used them in the same time period.[xi] These findings about the urban-suburban-rural digital divide align with existing research, such as a 2019 World Bank report that found that 62 percent of Indonesians in urban areas were connected to the internet, compared to 36 percent in rural areas.[19] However, our survey results did capture a much higher percentage of rural MSMEs as being online than the 2019 World Bank report, suggesting progress is underway in closing the usage gap.

In addition, our survey results found that urban and suburban MSMEs increased their usage of digital tools for business purposes during the COVID-19 pandemic, but usage has since slightly declined. More specifically, 75 percent of MSMEs in urban areas had ever used digital tools for business purposes prior to the COVID-19 pandemic, increasing to 79 percent in the past year during the pandemic, but decreasing to 78 percent in the past 30 days.[xii] While 69 percent of MSMEs in suburban areas had ever used digital tools for business purposes prior to the COVID-19 pandemic, increasing to 73 percent in the past year during the pandemic, and decreasing to 70 percent in the past 30 days.[xiii]

In addition, our survey results showed that the barriers urban and rural MSMEs reported facing differed. For example, more rul MSMEs reported that poor to internet connectivity was a difficulty their business faced compared to urban MSMEs. Specifically, 57 percent of MSMEs in rural areas listed this as a challenge (the most frequent response) while only 30 percent of urban based MSMEs reported this was a challenge (the third most frequent response).[xiv] These findings suggest that it is important for public, private, and development sector stakeholders to continue improving internet access throughout the country, with a focus on connectivity and accessibility for rural MSMEs.

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xi Not statistically significant per Chi squared test of independence, adjusted $p > 0.05$

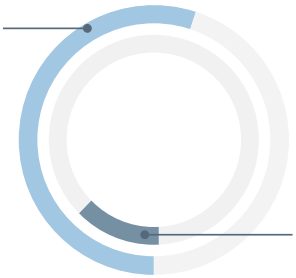
xii Difference between digital tool use prior to COVID-19 and digital tool use in the past year is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$. Difference between digital tool use in the past 30 days and digital tool use in the past year is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

xiii Difference between digital tool use prior to COVID-19 and digital tool use in the past year is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$. Difference between digital tool use in the past 30 days and digital tool use in the past year is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

xiv Statistically significant per Chi squared test of independence, adjusted $p < 0.05$

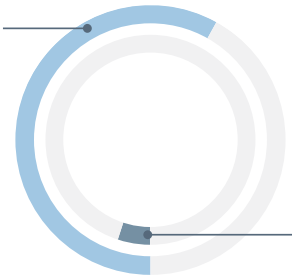
A higher percentage of online MSMEs reported using Facebook apps than other digital tools to conduct each business activity…

52% of online MSMEs reported that they used Facebook apps to **market to customers** in the past 30 days



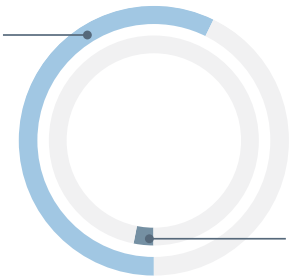
11% of online MSMEs reported that they used other digital tools to **market to customers** in the past 30 days

58% of online MSMEs reported that they used Facebook apps to **communicate with customers** in the past 30 days



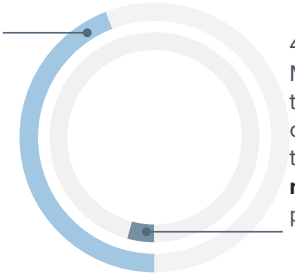
5% of online MSMEs reported that they used other digital tools to **communicate with customers** in the past 30 days

56% of online MSMEs reported that they used Facebook apps to **communicate with suppliers** in the past 30 days



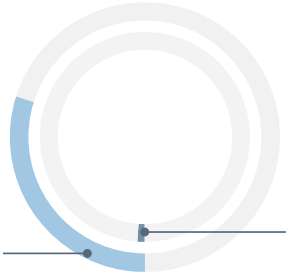
3% of online MSMEs reported that they used other digital tools to **communicate with suppliers** in the past 30 days

41% of online MSMEs reported that they used Facebook apps to **do customer research** in the past 30 days



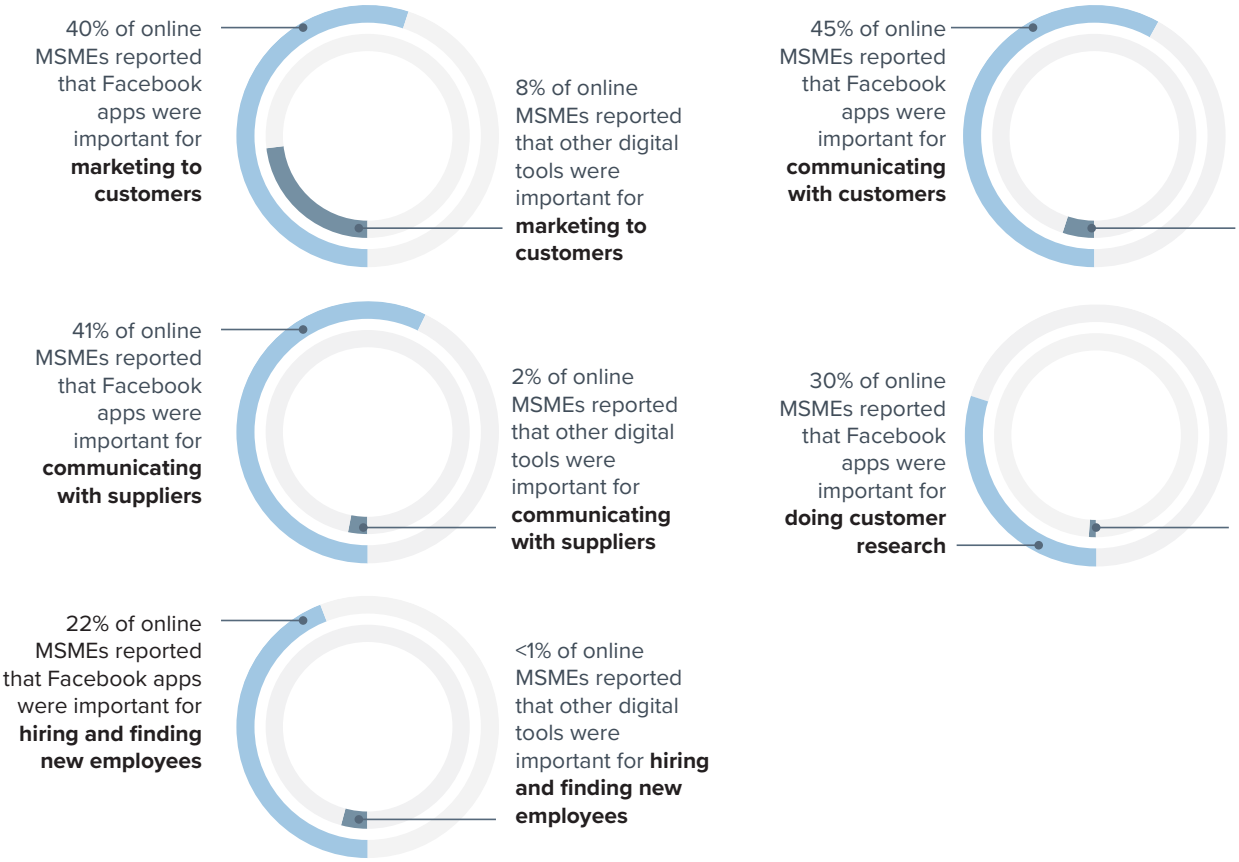
4 of online MSMEs reported that they used other digital tools to **do customer research** in the past 30 days

30% of online MSMEs reported that they used Facebook apps to **hire or find new employees** in the past 30 days

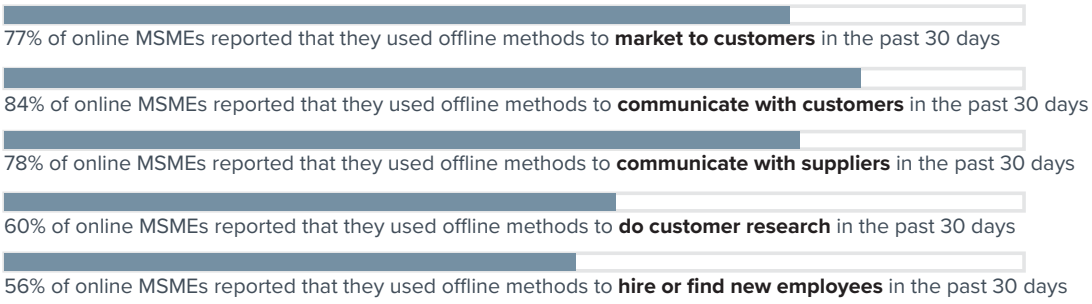


<1% of online MSMEs reported that they used other digital tools to **hire or find new employees** in the past 30 days

...And a higher percentage of online MSMEs stated that Facebook apps were important for each business activity than other digital tools...



...but offline methods[xv] were the most popular method for online MSMEs to conduct each of the following business activity:



MSME digital tool use to sell goods and services slightly increased during COVID-19

Selling goods and services is a key business activity for all MSMEs. In the survey, 60 percent of surveyed MSMEs reported that they have ever used digital tools to sell goods and services. However, survey results show a very modest increase in the use of digital tools to sell goods and services during the COVID-19 pandemic. More specifically, 53 percent of MSMEs reported that they used digital tools to sell goods and services prior to COVID-19, which then increased to 55 percent during COVID-19.[xvi] While digital tool use for selling goods and services only slightly increased, the survey results found a somewhat larger increase in the use of social media to sell goods and services. For example, 51 percent of MSMEs reported that they used social media to sell goods and services prior to COVID-19, which then increased three percentage points to 54 percent during the pandemic.[xvii] This finding illustrates that social media plays a distinct role in selling goods and services in Indonesia.

However, survey results also showed a recent decrease in digital tool use for selling goods and services across all digital tools. Fifty-four percent of MSMEs reported that they used digital tools to sell goods and services in the past 30 days (including 53 percent who reported using social media for this purpose).[xviii] This recent decrease in digital tool use for selling goods and services may indicate that surveyed MSMEs only temporarily increased their digital tool usage for sales and that these are not long-term changes.

Offline MSMEs reported using offline methods to conduct customer-facing business activities more frequently than for non-customer-facing business activities:

87% of offline MSMEs reported that they used offline methods to **communicate with customers** in the past 30 days

78% of offline MSMEs reported that they used offline methods to **communicate with suppliers** in the past 30 days

70% of offline MSMEs reported that they used offline methods to **market to customers** in the past 30 days

53% of offline MSMEs reported that they used offline methods to **do customer research** in the past 30 days

45% of offline MSMEs reported that they used offline methods to **hire or find new employees** in the past 30 days

Offline MSMEs reported using face-to-face interactions to conduct key business activities at a higher rate than other offline interactions methods, like telephone calls/SMS or paper-based methods:

87% of offline MSMEs reported that they used face-to-face methods to **communicate with customers** in the past 30

11% of offline MSMEs reported that they used telephone calls, SMS or text messages to **communicate with customers** in the past 30 days

69% of offline MSMEs reported that they used face-to-face to **market to customers** in the past 30 days

8% of offline MSMEs reported that they used telephone calls, SMS or text messages to **market to customers** in the past 30 days

xvi Difference between use of digital tools to sell goods and services in the past year and prior to COVID-19 is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

xvii Difference between use of social media to sell goods and services in the past year and prior to COVID-19 is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

xviii Difference between use of digital tools to sell goods and services in the past year and in the past 30 days is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

Surveyed MSMEs reported ever having difficulty with customer and supplier facing business activities and other external communications at a higher rate than other back-end business functions:[xix]

20% of MSMEs reported ever **having difficulty marketing to customers**

20% of MSMEs reported ever **having difficulty communicating with customers**

20% of MSMEs reported ever **having difficulty communicating with suppliers**

16% of MSMEs reported ever **having difficulty doing customer research**

15% of MSMEs reported ever **having difficulty hiring or finding new employees**

KEY INSIGHTS FOR POLICYMAKERS

According to survey results, Facebook apps were the most frequently reported digital tool that online MSMEs reported using to conduct each business activity. For example, 58 percent of online MSMEs reported that they used Facebook apps to communicate with customers in the past 30 days, compared to five percent for other digital tools. Accordingly, online MSMEs also reported that Facebook apps were very important for each business activity at a much higher rate than for other digital tools. To this end, 40 percent of online MSMEs reported that Facebook apps were very important for marketing to customers, compared to eight percent of online MSMEs who said this about other digital tools. Additionally, WhatsApp was cited as a particularly important tool for online MSMEs, serving a useful role across multiple business activities, both customer-facing and non-customer-facing. These findings indicated that Facebook apps were key digital supports for surveyed MSMEs to run multiple aspects of their businesses. Therefore, it is important for public, private, and development sector stakeholders to continue promoting the use of simple and intuitive digital tools among the Indonesian MSME community.

Nevertheless, survey findings indicated that online MSMEs in Indonesia were supplementing, rather than wholly replacing, their use of offline techniques with digital tools to conduct business. More specifically, a higher percentage of online MSMEs in Indonesia reported using offline methods, especially face-to-face techniques, in the past 30 days than digital tools for each business activity. (This finding also echoed the high reported usage of face-to-face among surveyed offline MSMEs across all business activities, with 87 percent of offline MSMEs reporting that they used face-to-face to communicate with customers in the past 30 days.) For instance, while 58 percent of online MSMEs reported that they used Facebook apps to communicate with customers in the past 30 days, 87 percent reported using offline methods for the same purpose over the same time period. Supporting MSMEs to survive and thrive during and after the COVID-19 pandemic requires looking across the full spectrum of business methods, given the complementary usage of both digital and offline methods across business activities.

xix Difference between difficulty in communicating with suppliers (the lowest of the top three) and difficulty in doing customer research (the top of the bottom two) is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

Woman-owned MSME

CASE STUDY

TIMOR MORINGA

www.facebook.com/timormoringantt/

www.instagram.com/timor.moringa/

AGRICULTURE & FOOD PRODUCTION | MEDIUM-SIZED ENTERPRISE | RURAL | SDG 2: ZERO HUNGER

In 2018, Meybi Agnesya Lomanledo started Timor Moringa, a social enterprise that works with local farmers to process Moringa leaves and diversify their agricultural products into derivatives such as Moringa Leaf Tea Bags, Moringa Leaf Powder, Moringa Leaf Chocolate, Moringa Leaf Capsules. Inspired by her childhood growing up in Nusa Tenggara Timur, where Moringa is a staple in the local diet, Meybi realized that there was a growing global and regional market for this wholesome food. The fast growing, productive Moringa tree has also been recognized as a boon for sustainable development, especially SDG 2, with the potential to enhance profitability of smallholder farmers, address nutrition and food scarcity, and enable people to shift towards healthier, well-balanced diets.

Despite being a region with enormous cultural and environmental diversity as well as economic potential, East Indonesia's vulnerable communities and MSMEs continue to face challenges in accessing the benefits of the digital economy. Digital tools offer MSMEs a critical channel to reach new customers across Indonesia, while empowering local farmers with new distribution channels and access to a premium organic consumer market. That is exactly how Meybi pivoted her business once the pandemic hit the country.

At the start of the pandemic, Meybi's business faced a drastic decline in sales. In addition to a focus on product improvements out of her offline shop in Kupang, Meybi turned to digital ads to reach her customers, and ensure that they can place orders online. Timor Moringa leverages Facebook and Instagram to build her network, raise brand awareness, and increase her sales. Meybi boosts posts to help direct her customers to place orders online, either through WhatsApp or Messenger. Once they place an order, she uses WhatsApp to interact with customers and provide follow up customer service. In order to reach consumers in a fast growing market for wholesome and organic agricultural products, Meybi targets advertisements to people across Jakarta, Bogor, Depok, Tangerang and Bekasi, with the age range of 16-45 years old.

These tools have helped Meybi to pivot successfully during the pandemic. Her customer awareness has increased, with sales soon increasing by 100-200 percent. Timor Moringa now employs 10 core teams, consisting of operations, logistics, and digital teams. Looking ahead, Meybi has set her sights on building a new production site in South Central Timor, which will also be used to facilitate agrotourism, and educate broader audiences about the sustainable cultivation of Moringa plants. In the next 1-2 years, she hopes to be able to cater to the markets across Indonesia and export her products by completing several required certifications.

> "Facebook, Instagram and WhatsApp for Business open up opportunities for Timor Moringa to be known more widely."

MSMEs DURING THE COVID-19 PANDEMIC

The COVID-19 pandemic was a challenging crisis for MSMEs in Indonesia. Businesses, struggling with difficult economic conditions in which their sales decreased substantially, embraced digital tools in their adaptation to the new economic environment. Online MSMEs largely found digital tools to be crucial to keeping their business running during the pandemic.

An interview with the owner of Bajuboo illustrates how one women-owned MSME in Indonesia is using digital tools and social media to promote her brand and grow the business. In particular, Intan's story highlights how Facebook apps have helped the business remain connected to customers during the pandemic and underscores how women entrepreneurs are using digital tools. See page 25 for full case study.

A large majority of MSMEs saw their sales decrease during the COVID-19 pandemic:

71% of MSMEs reported that their **sales decreased** during COVID-19 compared to a typical year

18% of MSMEs reported that their **sales decreased by more than half** of a typical year

10% of MSMEs reported that their **business closed at some point** during COVID-19

Surveyed MSMEs across most business sectors[xx] increased their usage of digital tools during the COVID-19 pandemic - but each sector adapted using different tools

Across business sectors - with the exception of food and agriculture - surveyed MSMEs increased their usage of digital tools for business purposes during the pandemic, but have slightly reduced their digital tool use in the past 30 days. For example, 74 percent of MSMEs in the professional services sector reported that they had ever used digital tools for business purposes prior to COVID-19, increasing to 78 percent during the pandemic, and then subsequently decreasing to 76 percent in the past 30 days.[xxi] Meanwhile, in the food and agriculture sector, MSMEs use of digital tools for business purposes has remained the same (76 percent) across all three time periods.[xxii] However, during the pandemic, MSMEs in the food and agriculture sector did increase their usage of digital payment platforms, but that increase has since returned to pre-pandemic levels. More specifically, 26 percent of MSMEs in the food and agriculture sector reported that they used digital payment tools prior to the pandemic, increasing to 28 percent during the pandemic, and then subsequently decreasing back to 26 percent.[xxiii] In addition, 78 percent of MSMEs in the food and agriculture sector reported that digital tools were important or essential to keeping their business running during COVID-19 and 93 percent reported the same about Facebook apps, the highest of any sector. These findings likely indicate that MSMEs use of digital tools will remain higher than before the pandemic, though this may not be universally true for all sectors.

xx Surveyed business sectors included agriculture and food production, manufacturing and industry, professional services, hospitality, and retail and e-commerce. Statistics about the hospitality sector are not included here due to sample size limitations.

xxi Difference between digital tool use prior to COVID-19 and digital tool use in the past year is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$. Difference between digital tool use in the past 30 days and digital tool use in the past year is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

xxii Difference between digital tool use prior to COVID-19 and digital tool use in the past year is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$. Difference between digital tool use in the past 30 days and digital tool use in the past year is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

xxiii Difference between use of digital tools to sell goods & services prior to COVID-19 and in the past year is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$. Difference between digital tool use in the past 30 days and digital tool use in the past year is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

Well-known digital tools, such as WhatsApp, helped online MSMEs adapt to the COVID-19 economic environment:

69% of online MSMEs reported that **digital tools were important or essential** to keeping their business running during COVID-19

87% of online MSMEs reported that **Facebook apps helped them adapt** to the COVID-19 environment

83% of online MSMEs reported that **WhatsApp helped them adapt** to the COVID-19 environment

25% of online MSMEs reported that **digital payment tools** helped them adapt to the COVID-19 environment

10% of online MSMEs reported that **e-commerce websites** helped them adapt to the COVID-19 environment

4% of online MSMEs reported that other **social media platforms** helped them adapt to the COVID-19 environment

4% of online MSMEs reported that **e-mail** helped them adapt to the COVID-19 environment

4% of online MSMEs reported that **their own business website** helped them adapt to the COVID-19 environment

3% of online MSMEs reported that **other digital tools** helped them adapt to the COVID-19 environment

3% of online MSMEs reported that **business software or cloud computing** helped them adapt to the COVID-19 environment

2% of online MSMEs reported that **messaging apps** helped them adapt to the COVID-19 environment

1% of online MSMEs reported that **videoconferencing** helped them adapt to the COVID-19 environment

KEY INSIGHTS FOR POLICYMAKERS

Survey results showed the economic slowdown stemming from the COVID-19 pandemic negatively impacted more than half of surveyed MSMEs' sales throughout Indonesia. Almost three-quarters of MSMEs (71 percent) reported that their sales decreased during COVID-19 compared to a typical year. These findings align with a phone interview-based survey conducted by the Center for Financial Inclusion in July/August 2020, which reported that 85 percent of surveyed Indonesian MSMEs who continued to operate during the pandemic, reported that their profits significantly decreased.[20]

Despite reported decreases in sales among surveyed MSMEs, many online MSMEs reported that digital tools helped them adapt to the new economic landscape. For example, more than half (69 percent) of online MSMEs reported that digital tools were important or essential to keeping their business running during COVID-19. From a list of various digital tools, the highest percentage of surveyed online MSMEs reported that Facebook apps (87 percent) helped them adapt to the COVID-19 environment. Given that 83 percent of online MSMEs specifically cited WhatsApp was helpful in adapting to COVID-19, it is clear that WhatsApp was perceived as a particularly useful digital tool by respondents. Additionally, digital payment platforms (25 percent) and e-commerce websites (10 percent) were reported as helpful tools in adapting to COVID-19 by online MSME respondents. Aligned with the well-documented phenomenon of technological leapfrogging, by which entrepreneurs in emerging markets bypass the use of established technologies in favor of newer ones,[21] MSMEs in Indonesia appeared to favor newer digital tools, such as social media and digital payment platforms. Although Indonesia enjoys a robust e-commerce sector, our survey results reported that only 10 percent of online MSMEs found this digital tool helpful in adapting to the new economic environment.[22] With the growing importance of digital payment tools alongside the popular usage of intuitive, cost-effective tools such as WhatsApp, there may be an opening for public, private, and development sector stakeholders to increase digital tool use among Indonesia's MSMEs by piggy-backing other digital tools onto the adoption of these tools. By providing MSMEs with a positive user-experience in early adoption and usage, the increase in digital tool use during the COVID-19 pandemic may convert into long-term behavior change.

BARRIERS TO THE ADOPTION AND USE OF DIGITAL TOOLS AMONG MSMEs

Lack of knowledge was the most frequently reported difficulty faced by both online and offline businesses in using digital tools. However, poor or no connectivity and high cost were more often cited as difficulties by online businesses rather than offline. Both online and offline MSMEs were eager to learn more about using digital tools in their customer-facing work.

Lack of knowledge was the most frequently reported difficulty that online and offline MSMEs reported facing in using digital tools:

48% of online MSMEs reported that **lack of knowledge** was a difficulty their business faced in using digital tools

46% of offline MSMEs reported that **lack of knowledge** was a difficulty their business faced in using digital tools

Other commonly cited difficulties among online MSMEs included connectivity and cost, though these were less apparent in responses from offline MSMEs:

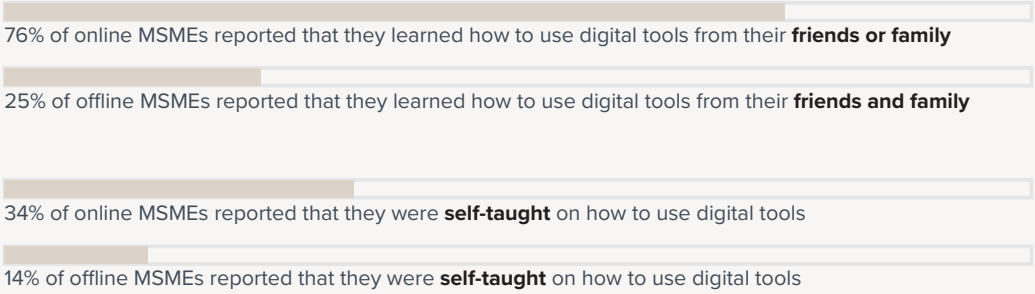
40% of online MSMEs reported that **poor or no internet connectivity** was a difficulty their business faced in using digital tools

28% of offline MSMEs reported that **poor or no internet connectivity** was a difficulty their business faced in using digital tools

38% of online MSMEs reported that **high cost** was a difficulty their business faced in using digital tools

23% of offline MSMEs reported that **high cost** was a difficulty their business faced in using digital tools

A much higher percentage of online MSMEs compared to offline MSMEs learned how to use digital tools from their friends or family



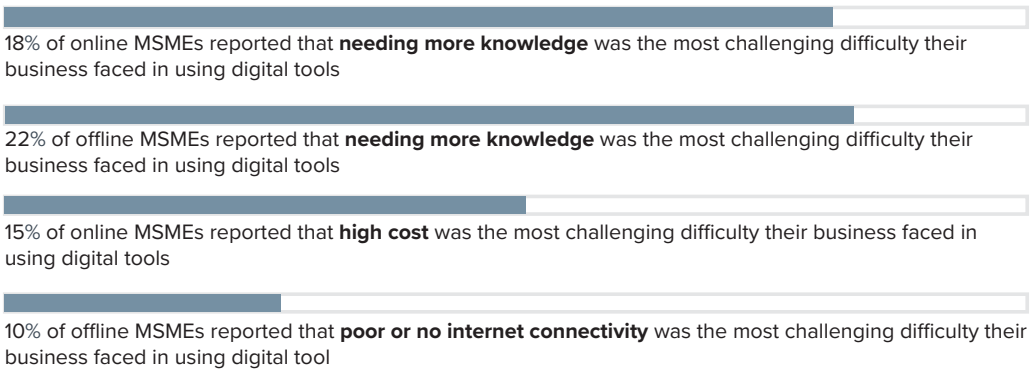
76% of online MSMEs reported that they learned how to use digital tools from their **friends or family**

25% of offline MSMEs reported that they learned how to use digital tools from their **friends and family**

34% of online MSMEs reported that they were **self-taught** on how to use digital tools

14% of offline MSMEs reported that they were **self-taught** on how to use digital tools

Lack of knowledge topped the list for both online and offline MSMEs in regard to the most challenging difficulty their business faced in using digital tools. However, the second most-often cited by online MSMEs was high cost, while offline MSMEs second most-cited was poor or no internet connectivity:



18% of online MSMEs reported that **needing more knowledge** was the most challenging difficulty their business faced in using digital tools

22% of offline MSMEs reported that **needing more knowledge** was the most challenging difficulty their business faced in using digital tools

15% of online MSMEs reported that **high cost** was the most challenging difficulty their business faced in using digital tools

10% of offline MSMEs reported that **poor or no internet connectivity** was the most challenging difficulty their business faced in using digital tool

Online and offline MSMEs were interested in learning more about digital tools to enhance their customer-facing work:

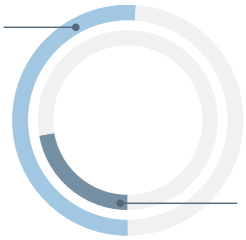
65% of online MSMEs reported that they were interested in learning more about using digital tools to **market their business**

45% of offline MSMEs reported that they were interested in learning more about using digital tools to **market their business**

42% of online MSMEs reported that they were interested in learning more about using digital tools to **find new customers**

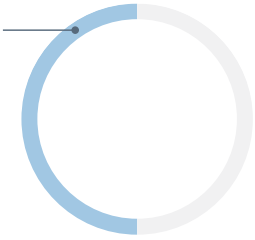
29% of offline MSMEs reported that they were interested in learning more about using digital tools to **find new customers**

51% of online MSMEs reported that they were interested in learning more about using digital tools to **communicate with existing customers**

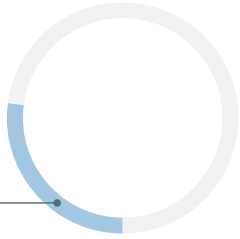


22% of offline MSMEs reported that they were interested in learning more about using digital tools to **communicate with existing customers**

50% of offline MSMEs reported that **training on how to use digital tools for marketing would benefit their business**



27% of offline MSMEs reported that **more education and training would make them more likely to use digital tools**



Using the internet to find information or help was the most cited response by online and offline MSMEs in regards to what they felt confident in using digital tools for. But a much higher percentage of online MSMEs overall reported feeling confident in this activity:

57% of of online MSMEs reported that they felt **confident** using the internet to find information or help

19% of offline MSMEs reported that they felt **confident** using the internet to find information or help

A higher percentage of women-owned MSMEs reported using digital tools for business purposes than men-owned MSMEs

According to survey results, a higher percentage of women-owned MSMEs reported using digital tools for business purposes than men-owned MSMEs before the pandemic, in the past year, and in the past 30 days.[xxiv] More specifically, 76 percent of women-owned MSMEs reported that they had ever used digital tools prior to the pandemic, increasing to 79 percent in the past year during the pandemic, and slightly decreasing to 77 percent in the past 30 days.[xxv] Men-owned MSMEs followed a similar pattern, but with lower overall digital tool usage rates: 68 percent of men-owned MSMEs had ever used digital tools prior to the pandemic, increasing to 72 percent in the past year during the pandemic, and decreasing to 71 percent in the past 30 days.[xxvi] These survey findings do not align with recent literature about Indonesia's mobile internet gender gap. For example, a 2020 GSMA Report on The Mobile Gender Gap reported that in Indonesia, a higher percentage of men used mobile internet than women.[23] However, our survey results did highlight that men-owned MSMEs used certain digital tools at higher percentages than women-owned MSMEs. For example, 27 percent of men-owned MSMEs used e-commerce websites in the past year while only 21 percent of women-owned MSMEs used this tool in the same time period.[xxvii]

Lack of knowledge was a key challenge facing both women-owned and men-owned MSMEs. Although lack of knowledge was the most frequently reported difficulty among both groups, a greater percentage of online women-owned MSMEs (49 percent) reported that lack of knowledge was a difficulty their business faced in using digital tools than men-owned MSMEs (46 percent).[xxviii] Additionally, a greater percentage of women-owned MSMEs reported a lack of knowledge was the most challenging difficulty (19 percent) than men-owned MSMEs (17 percent).[xxix] These survey findings indicated that a lack of knowledge about digital tools inhibits women-owned MSME digital tool use more so than men-owned MSMEs. Which could inhibit women-owned MSMEs use of digital tools in the future - despite the other survey findings presented here.

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xxiv For digital tool use prior to COVID-19, in the past year, and in the past 30 days, the differences between female-owned and men-owned MSMEs are not statistically significant per Chi squared test of independence, adjusted $p > 0.05$.

xxv Difference between digital tool use in the past year and digital tool use prior to COVID-19 is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$. Difference between digital tool use in the past year and digital tool use in the past 30 days is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

xxvi Difference between digital tool use in the past year and digital tool use prior to COVID-19 is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$. Difference between digital tool use in the past year and digital tool use in the past 30 days is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

xxvii Not statistically significant per Chi squared test of independence, adjusted $p > 0.05$

xxviii Not statistically significant per Chi squared test of independence, adjusted $p > 0.05$

xxix Not statistically significant per Chi squared test of independence, adjusted $p > 0.05$

KEY INSIGHTS FOR POLICYMAKERS

Survey results showed that lack of knowledge was a key barrier affecting MSME digital tool use in Indonesia, followed by difficulties with internet connectivity and digital tools' high cost. For example, lack of knowledge was the most frequently reported difficulty by both online (48 percent) and offline (46 percent) MSMEs, and was reported as their most challenging difficulty (18 and 22 percent, respectively). Online and offline MSMEs also reported additional difficulties that their businesses faced in using digital tools. More specifically, 40 percent of online MSMEs reported that poor or no internet access was a difficulty their business faced in using digital tools (the second most frequent response), while 28 percent of offline MSMEs listed this as a difficulty (the second most frequent response). However, only offline MSMEs reported that poor to no internet connectivity was their businesses most challenging difficulty following a lack of knowledge. In contrast, online MSMEs reported that digital tools' high cost was their businesses' second most challenging difficulty. This finding suggests that for MSMEs overall, policymakers and other development partners could focus on capacity building centered on how to use digital tools while also maintaining a tailored approach towards offline and online MSMEs, so that they feel empowered, justified, and well-resourced enough to come online or increase their existing digital tool usage.

Echoing the findings in previous sections, which showed that a majority of online MSMEs had recently used Facebook apps to conduct customer-facing business activities,[xxx] online and offline MSMEs expressed an interest in learning more about using digital tools to conduct customer-facing work. Sixty-five percent of online MSMEs and 45 percent of offline MSMEs reported that they were interested in learning more about using digital tools to market to customers; 42 percent of online MSMEs and 29 percent of offline MSMEs reported the same about using digital tools to find new customers, as did 51 percent of online MSMEs and 22 percent of offline MSMEs about communicating with existing customers. As noted in the box on page 23, a much higher proportion of online MSMEs learned how to use digital tools from friends or family as opposed to self-teaching, which could indicate that the resources for self-training on digital tools were limited or not being used. This finding reinforces the importance of working directly with MSMEs to build their digital skills on topics that they were most interested in and that - by extension - have the most relevance to their work.

xxx 58 percent of online MSMEs reported that they used Facebook apps to communicate with customers in the past 30 days, and 52 percent of online MSMEs reported that they used Facebook apps to market to customers in the past 30 days

Woman-owned MSME

CASE STUDY

BAJUBOO

www.facebook.com/bajuboo/

www.instagram.com/bajuboo/

RETAIL & E-COMMERCE | SMALL ENTERPRISE | URBAN | SDG 5: GENDER EQUALITY

Inspired by her own experience trying to find stylish yet practical clothes during her pregnancy, Intan Aisyah started a fashion company in 2019 selling breastfeeding and maternity clothes and instant hijabs to women in her home city of Tangerang. Empowered by hearing stories of other women entrepreneurs across Indonesia, Intan began using Facebook apps to promote her brand and gradually expanded her customer reach across the country.

As smartphones become ubiquitous across Indonesia, more Indonesian companies are selling online through an expanding e-commerce marketplace using digital applications to reach customers. Intan noted that digital tools gave her a competitive edge over other similar businesses selling to their existing followers. In addition, she has been able to attract new customers, and attributes growth in her sales to her Facebook ads. Intan leveraged Facebook and Instagram to promote her products, using features such as Stories, Polls, and Questionnaire to interact with customers, share product reviews, and offer instructions on how to order online. She usually posts 1-3 times a day on Instagram using the carousel feature to share her products in a catalog format.

After experiencing a decline in sales during the early months of the COVID-19 pandemic, Intan collaborated with a digital marketing agency to learn strategies to improve her promotions on Facebook Business. Learning the tools herself, Intan created the content and analyzed the results from ads to help her business grow. She also explored new digital tools like IGLive to provide more intimate, personalized connections with her followers, often resulting in a boost in sales. WhatsApp Business – especially Quick Reply and Labelling – was also key to managing Bajuboo's customer service and engagement.

Intan's business exemplifies a recent fashion industry trend that has seen women entrepreneurs start their own fashion companies to address market gaps in available clothing options. Not only does her thriving business Bajuboo contribute to the advancement of SDG 5: Gender Equality by providing Indonesian women with clothing that addresses their needs, it also promotes inclusive and sustainable economic growth in Indonesia.

> "This business I have would not be where it is without Facebook. Started from thin air as an idea and Facebook made it happen. I'm thankful because Facebook helped us be appreciated elsewhere – U.S. and UK – and then helped gain popularity here in the Philippines."

CLOSING REMARKS

By expanding access to digital literacy programming to upskill MSME owners, Indonesia's MSME sector will be well-positioned to harness the power of digital tools to improve business outcomes and become more resilient to future economic shocks. As evidenced by the survey findings presented in this research study, a large majority of surveyed MSMEs in Indonesia used digital tools to conduct basic business functions. IIn addition, online MSMEs recognized the importance of new digital tools during COVID-19: surveyed online MSMEs cited that Facebook apps (87 percent), and specifically WhatsApp (83 percent), were important or essential to their ability to adapt to the COVID-19 economic environment. However, barriers such as cost, connectivity and lack of knowledge proved a challenge to MSMEs seeking to fully leverage digital tools in their business practices: our findings reported that surveyed MSMEs, both online and offline, were constrained by a lack of know-how, limiting their ability to adopt more digital tools. Additionally, online and offline MSMEs also reported facing different sets of challenges: online MSMEs noted high cost as a challenge while offline MSMEs cited poor internet connectivity. Nevertheless, MSMEs still reported a strong desire to learn more about digital tools for business purposes, such as using them to find new customers. This evidence shows that targeted solutions are required to maintain forward momentum and continue growing MSME digital tool usage equitably across all MSME segments.

Looking ahead, the economic uncertainties stemming from the COVID-19 pandemic will undoubtedly cause continued challenges and increased opportunities for MSMEs to harness the power of digital tools. Given that 83 percent of surveyed online MSMEs reported that WhatsApp helped their businesses adapt to the COVID-19 environment, it is clear that WhatsApp was perceived as a particularly userful digital tool by respondents. This finding points to the importance of promoting the use of simple, intuitive, and cost-effective digital tools like WhatsApp among Indonesia's MSME community. MSMEs poised to grow and scale as the pandemic recedes will accelerate economic growth outcomes and support Indonesia in achieving its SDG commitments. Ensuring that the MSME sector can participate in and benefit from digital transformation is crucial to fostering the inclusive and resilient growth of Indonesia's economy.

APPENDIX 1: METHODOLOGY

OVERVIEW OF THE SURVEY DESIGN

From June 5 to June 27, 2021, Ipsos conducted 1,044 in-person interviews of enterprises via computer-assisted personal interviewing (CAPI) to better understand their use of digital tools as well as their challenges and barriers to digitization.[xxxi]

The sample for the study was defined to include and be limited to Indonesia's micro (one employee), small (2 to 9 employees) and medium (10 to 249 employees) business populations[xxxii] (summarized as "business size" in the text). Official statistics from the Republic of Indonesia Ministry of Cooperatives[24] (updated in 2021) were used as a basis to estimate the proportion[xxxiii] of businesses for each business size and to establish targets by business size (measured by the number of employees). The lists were also used to set targets by province and urbanicity (urban, suburban and rural) within Indonesia.

The targets for business size were set to approximate the distribution of the business population by business size across all of Indonesia, however these estimates are imperfect as the official statistics on which they are based do not include informal businesses and are not sufficiently recent to account for the impact of COVID-19 on business operations. Due to the lack of reliable official statistics, the data is not considered to be representative of the entire MSME formal and informal business population in Indonesia.

Furthermore, a minimum target of 150 women-owned businesses was set for the sample. This means that if 150 interviews were not reached when the final sample size was achieved, then additional interviews would be conducted to ensure the sample included 150 interviews with women-owned businesses. In Indonesia, this minimum was achieved naturally and no oversample was required.

Based on these estimates, the sample targets were allocated as shown in Figure 10, which also shows the actual counts achieved from fieldwork:

BUSINESS SIZE			GEOGRAPHIC COVERAGE			BUSINESS OWNER GENDER		
	Target	Actual		Target	Actual		Target	Actual
Micro	500	517	Urban	500	535	Women	Min 150	706
Small	300	309	Suburban	250	214	Men		339
Medium	200	219	Rural	250	296	N/A		

Sample Proportions in Indonesia

xxxi This research was conducted as part of a broader cross-national study of MSME digital tool usage across emerging markets in South America, South Asia, and Southeast Asia. The forthcoming global report will contain a complete description of the research and survey methodology.

xxxii Across all business size groupings, employees include the respondent (an owner or top-level manager of the MSME), any full-time employees or workers, and any part-time employees or workers.

xxxiii These were considered estimates, as the official statistics do not include informal businesses and are not sufficiently recent to account for the impact of COVID-19 on business operations.

SAMPLE DESIGN

The sample design is a multistage stratified cluster sample. This means that the population was divided into geographic blocks (a "cluster") and then through stages, each time selecting a more limited geographic unit until the final sampling unit for interviewing was selected. Specifically, the two geographic units and the sampling unit defined at each stage were the following:

- PSUs: Ipsos designated provinces as the primary sampling units. In total, 11 of 34 provinces were selected for the study. Provinces were allocated randomly with equal probability of selection.
- SSUs: Subsequently, 16 cities (out of 49 total cities across the 11 provinces) and 12 rural areas[xxxiv] within the 11 chosen provinces were selected as secondary sampling units. The secondary sampling units were selected to represent economic areas and coverage of different types of areas within the country based on the official government list statistics described earlier. Ipsos established a target number of interviews at the SSU level based on the urban and rural populations of the SSU and the set targets for the proportions of micro, small and medium businesses with the goal of ensuring sufficient sample size for analysis.
- Individual Businesses: Within each city and rural area, enumerators identified businesses to contact by using the random walk method. That is, after beginning at a random spot within a demarcated geographic area selected by the project management team based on their knowledge of local business districts, enumerators counted off and approached every 'Xth' business, where 'X' was a randomly selected number provided on their interview sheets. First, they walked on the right-hand side of the street and turned right until they had walked around the entire perimeter, then they repeated the same process on the left side of the street. For the purposes of this survey, Ipsos enumerators only made contact with businesses with a storefront, booth or signage.

Once a business was identified, enumerators proceeded to gain consent for the interview. If the respondent agreed, the enumerator administered the screening questions and, if qualified, conducted the survey. If a business was not available, or the respondent requested that the interview be rescheduled, enumerators made three attempts to reach the business. If the enumerator was unable to reach the business after these three attempts, then that business was marked as a refusal (figure below). Survey participation was completely optional, dependent on explicit respondent consent, and non-compensated. Enumerators administered the screening and survey using pre-programmed tablets for data entry, ensuring consistency in the questionnaire administration.

	CAPI
Contacts	2070
Completes	1043
Refusals	601
Response rate[xxxv]	50%
Refusal rate[xxxvi]	29%

Response and refusal rates in Indonesia[xxxvii]

xxxiv There is no reliable way to assess the total number of eligible rural areas (i.e. rural areas with enough MSMEs to sample from) within the provinces selected. This is due to the lack of information on the location of rural commercial areas.

xxxv Calculated using AAPOR Response Rate 3 methodology

xxxvi Calculated by dividing the number of refusals by the number of contacts

xxxvii By showing only the response rate and refusal rates, Figure 11 shows a limited set of the outcomes possible. The full set of dispositions includes outcomes such as ineligible respondent (i.e. not owner or top-manager), ineligible company, or suspended interview. The response rate and refusal rate calculations are not inclusive of the complete set of outcomes and therefore do not add to 100%.

Total Sample:

The target allocation and actual survey completes by regions are detailed below:

PROVINCE	TARGET	ACTUAL
Bali	98	101
Central Java	260	268
East Java	42	48
East Kalimantan	42	43
Jakarta	78	49
Maluku	42	41
South Sulawesi	78	81
North Sumatra	78	82
South Sumatra	42	45
West Java	134	170
Yogyakarta	114	115
Total	**1008**	**1043**

Target vs. Actuals by region in Indonesia

Sample Weighting

Based on the fieldwork dispositions, the raw survey data was weighted to account for the variation in non-response by urban and rural designations and by gender. Specifically, Ipsos applied the following:

- Design weight: A weight by strata (province) was applied to adjust the sample to be proportionate to the number of people within each province, as determined by the 2020 Census data[25]. The Republic of Indonesia Ministry of Cooperatives data used to create benchmarks by business size was not used here due to the exclusion of informal businesses discussed above. Data on population counts, such as this Census data, is considered to more closely align with estimates of total (including informal) business counts.
- Non-response weight: Weights were applied by urbanicity (urban / rural) and gender of respondent within strata based on response rates. For example, if an enumerator approached a business in province X with a female respondent, and they were ultimately marked as a refusal, the enumerator would still keep track of the fact that a female respondent was approached. During weighting, province X would be weighed to reflect the number of female and male respondents who were approached. Without these weights, the survey results would be biased by propensity to respond based on respondent gender and urbanicity.

These two weights were combined to create one overall final weight applied to all data points. The design effect for Indonesia is 1.47.[xxxviii]

Ipsos carefully considered a broad spectrum of additional weights to be applied, but was limited by a lack of reliable data sources to weigh on. For example, weights were not applied by company size as there are no reliable population statistics that define the proportion of businesses throughout Indonesia by company size. Cross-national weights were also not applied. The purpose of a cross-national weight would be to make the data in this report comparable to data for other country reports in this series. Similarly, there was no reliable data source that could account for country sampling differences in fieldwork timing and survey modes.

A weight by business size was not applied as the actual counts achieved through natural fallout closely matched the targets by business size set using the Republic of Indonesia Ministry of Cooperatives data (see: Figure 10).

Finally, a modal weight was not applied. Weighting by mode was rendered moot as there was only one mode used in the study for interviewing: namely, in-person CAPI interviewing.

Due to the limitations of the weighting strategy discussed here, the sample should not be considered to be wholly representative of formal and informal businesses in Indonesia.

COVID-19 Protocols

Extensive COVID-19 protocols were observed during CAPI interviews: only 2-3 people were allowed at each interview location, two meters apart. Enumerators wore masks and gloves during all interviews – which they removed, cleaned, and stored or disposed of after every six hours of wear – and sanitized their hands before and after every interview.

Limitations to the Survey Design

While every effort was made to ensure representativeness of the data, there are several limitations to the survey design. In terms of coverage limitations, the use of random walk sampling methods in urban and non-urban areas could mean that MSMEs associated with certain characteristics could have a higher likelihood of agreeing to participate in the survey - for example, a grocery store owner would be more apt to agree to participate in a survey during slow business hours than an MSME owner engaged in physical labor. This may lead to overcoverage or undercoverage of certain business sector types.

Another key coverage limitation relates to the exclusion of any household-based businesses without signage or storefronts and the geographic coverage. The random walk methodology may also limit the inclusion of multiple businesses at the same location. For multi-story buildings, enumerators were instructed to treat the building as part of the random walk and choose one (or multiple depending on the interval and building size) from the location for screening and consent; however, if multiple businesses are operating from one space or location in the building, only one would be eligible. This limitation would also apply to multiple businesses sharing a stand or booth as only one of the business owners or top-level managers would be screened for qualification and consent.

In terms of geographic coverage limitations, firms selected for interviews were from targeted cities within the eleven provinces listed above; all firms outside of these areas were not included in the sampling frame.

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xxxviii The design effect is the ratio of an actual variance of an estimator that is based on a sample from some sampling design, to the variance of an alternative estimator that would be calculated (hypothetically) using a sample from a simple random sample (SRS) of the same number of elements. A design effect less than one indicates that the sample design has a smaller variance (is more efficient) than the hypothetical SRS design, whereas a design effect greater than one indicates that the sample design has a greater variance (is less efficient). Kish, Leslie (1965). "Survey Sampling". New York: John Wiley & Sons, Inc. ISBN 0-471-10949-5."

There were also limitations resulting from COVID-19 specific challenges. These included the impact of social distancing-related restrictions on response and completion rates and the impact of COVID-19 on respondent business outcomes and behavior. Although this study accounts for unit non-response weighting on certain characteristics, there is no way to weigh on unobservables such as individual propensity to participate in a survey during a pandemic.

An additional key limitation related to weighting was the lack of post-stratification weights, particularly for national level calculations and estimates. Without complete data on formal and informal MSMEs for benchmarking, it was not possible to implement post-survey adjustments to reflect the true composition of Indonesia's MSME structure. Although the sampling process captured variation in Indonesia's MSME structure regarding size, industry, and individual characteristics of business owners, any national-level figures were not adjusted or corrected to reflect business population characteristics.

Finally, the use of two-stage cluster sampling represents a limitation on the precision of estimates. This may have led to larger standard errors for estimation at a detriment to the overall precision of results.

NOTES ON ANALYSIS

The primary methods of analysis used in this report are ratio estimations and Rao & Scott's Chi-squared test of Independence to determine statistical significance. All questions required a response to be entered, enabling the interviewer to continue to the next question. All questions included a "don't know" option code and a "refused" option code. These were considered valid responses and were included in the base for a question. The percentage of respondents that refused to answer a question they were eligible for ranged from 0-3%, depending on the question.

Reported survey results were calculated with a base of all respondents (the total sample), or on all surveyed online MSMEs or surveyed offline MSMEs. The base is specified for each data point. The sample size of online MSMEs and offline MSMEs are both smaller than the base of all surveyed MSMEs. Certain data points may also reflect the results for a subgroup of respondents, such as women-owned businesses or those within a region.

Footnotes are included throughout the report to make note of the analyses conducted, including the corresponding statistical tests and associated outputs. For all tests of statistical significance, the results should be interpreted as levels of association and not causality. Our main criteria for determining statistical significance is the 95% confidence level. For each disaggregate percentage estimation highlighted in the report, the p-value in relation to alpha (less than or equal to .05 or greater than .05) is reported as a footnote.

Additionally, findings and results reported here should not be considered representative of Indonesia's MSME sector due to the limited geographic scope of the survey and the limitations to the survey design mentioned above.

APPENDIX 2: SUMMARY OF MSME AND RESPONDENT CHARACTERISTICS

CATEGORICAL VARIABLES		UNWEIGHTED N	UNWEIGHTED %	WEIGHTED %	UNWEIGHTED STDERROR	WEIGHTED STDERROR
Online Status	Offline	294	28.2	23.2	1.35	1.54
	Online	749	71.8	76.8	1.35	1.54
Gender Ownership	Men-owned	338	32.4	33.6	1.44	2.08
	Women-owned	705	67.6	66.4	1.44	2.08
Urbanicity	Rural	295	28.3	24.1	1.16	1.32
	Suburban	213	20.4	17.5	1.15	1.56
	Urban	535	51.3	58.3	1.37	1.76
Business Size	Micro	516	49.5	47.4	1.55	2.19
	Medium	219	21	22.9	1.27	1.9
	Small	308	29.5	29.7	1.42	2.03
Business Vertical	Agriculture & food production	188	18	17.6	1.19	1.63
	Hospitality	271	26	27.1	1.36	1.96
	Manufacturing & industry	275	26.4	27.5	1.37	2.01
	Professional services	15	1.4	1.7	0.37	0.65
	Retail & eCommerce	200	19.2	17.9	1.22	1.63
	Other	94	9	8.3	0.88	1.21
Region	Bali	101	9.7	2.1	0.92	0.01
	DKI Jakarta	49	4.7	15.4	0.66	0.06
	East Java	48	4.6	19.6	0.65	0.08
	East Kalimantan	43	4.1	1.9	0.62	0.04
	Jawa Barat	170	16.3	24.6	1.14	0.29
	Jawa Tengah	268	25.7	18	1.35	0.08
	Maluku	41	3.9	0.8	0.6	0
	Medan	82	7.9	7.3	0.83	0.03
	South Sulawesi	81	7.8	4.4	0.83	0.02
	South Sumatera	45	4.3	4.2	0.63	0.02
	Yogyakarta	115	11	1.9	0.97	0.01
Owner Education	No formal education or less than primary education	8	0.8	0.4	0.27	0.17
	Primary education	90	8.6	7.5	0.85	1.09
	Secondary education	716	68.7	69.8	1.42	1.98
	University education or higher (degree)	197	18.9	18	1.19	1.67
	Vocational or technical education or training	19	1.8	1.7	0.41	0.57
	Don't Know	11	1.1	2.1	0.31	0.7
	Refused	1	0.1	0.4	0.1	0.41

CATEGORICAL VARIABLES		UNWEIGHTED N	UNWEIGHTED %	WEIGHTED %	UNWEIGHTED STDERROR	WEIGHTED STDERROR
Owner Age	18-24	53	5.1	6.6	0.68	1.22
	25-34	232	22.3	19.1	1.27	1.65
	35-44	387	37.1	37.6	1.47	2.05
	45-54	276	26.5	28.3	1.37	2.02
	55-64	79	7.6	7.4	0.81	1.26
	65 or older	9	0.9	0.4	0.29	0.2
	Don't Know	6	0.6	0.5	0.23	0.23
Respondent Education	No formal education or less than primary education	8	0.8	0.4	0.27	0.17
	Primary education	87	8.3	7.1	0.83	1.04
	Secondary education	746	71.5	73.5	1.37	1.91
	University education or higher (degree)	183	17.5	16.8	1.15	1.65
	Vocational or technical education or training	18	1.7	1.7	0.4	0.57
	Refused	1	0.1	0.4	0.1	0.41
Banking Status	Banked	640	61.4	70.1	1.46	1.7
	Unbanked	385	36.9	28.7	1.46	1.69
	Don't Know	13	1.2	1	0.34	0.31
	Refused	5	0.5	0.2	0.21	0.13
Respondent Role	Owner	962	92.2	91.1	0.81	1.31
	Top-level manager, not an owner	81	7.8	8.9	0.81	1.31
Client Type	Both businesses and individuals	215	20.6	18.6	1.24	1.59
	Primarily Individuals such as consumers or customers	776	74.4	77	1.34	1.69
	Primarily businesses	52	5	4.4	0.67	0.73

NUMERICAL VARIABLES	UNWEIGHTED N	UNWEIGHTED MEAN	WEIGHTED MEAN	UNWEIGHTED STANDARD DEVIATION	WEIGHTED STANDARD DEVIATION
Respondent Age[1]	1043	39.2	39.3	10.1	9.9
Business Age[2]	1039	10	9.9	62.8	47.5
Number of Owners[3]	1043	1.6	1.7	2.1	2.1

1 Other possible response options: Don't Know (0), Refused (0)

2 Businesses in operation less than one year (40) coded as 0. Other possible response options: Don't Know (3), Refused (1)

3 Other possible response options: Don't Know (0), Refused (0)

ENDNOTES

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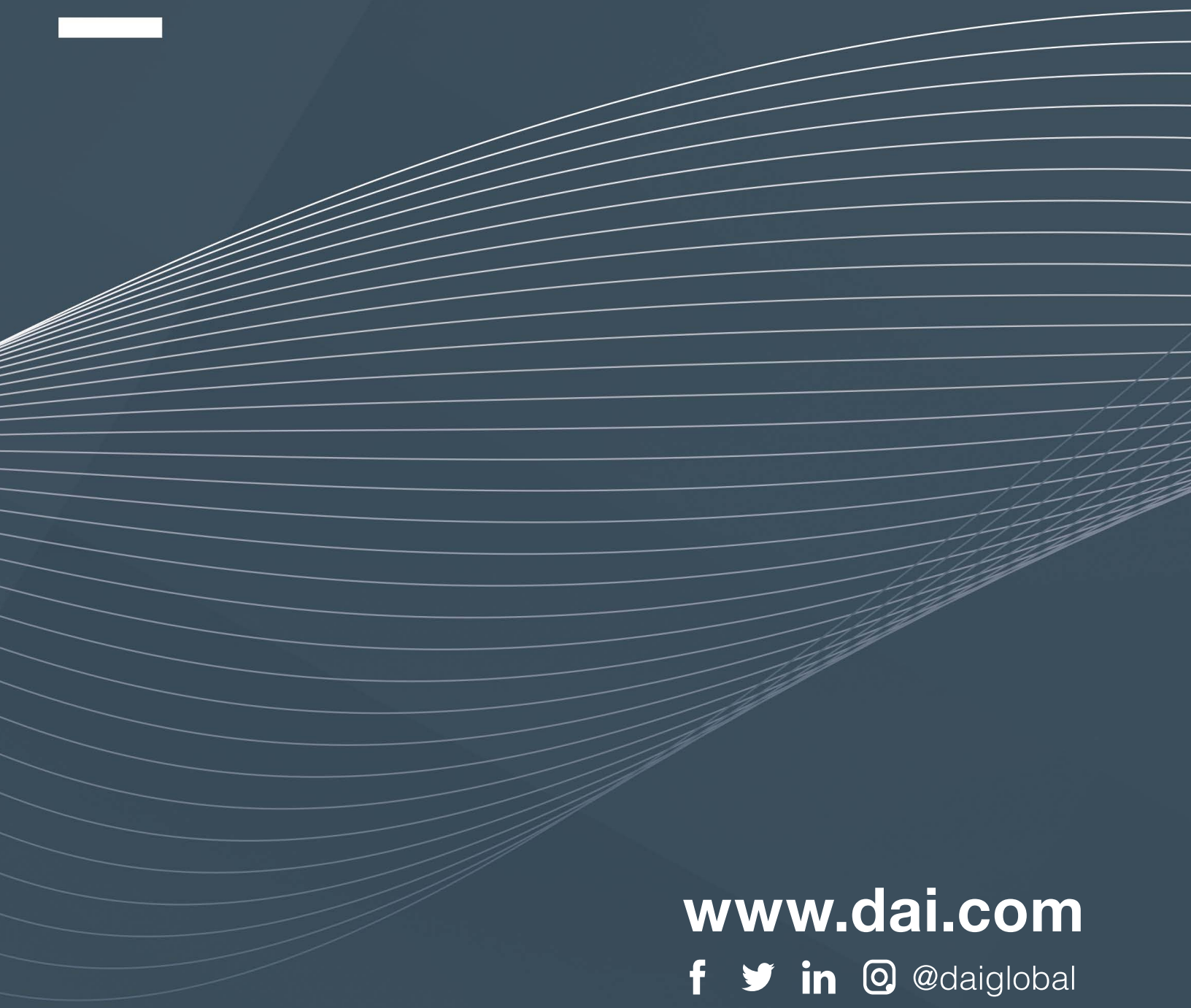

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