INSIGHTS FROM EMERGING MARKETS

MSMEs and Digital Tool Use Amidst the COVID-19 Pandemic

PERU COUNTRY BRIEF

DAI

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February 2022

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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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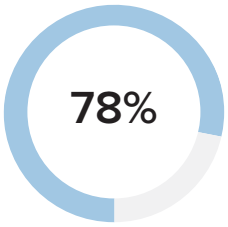
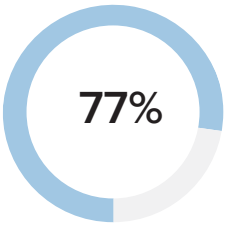
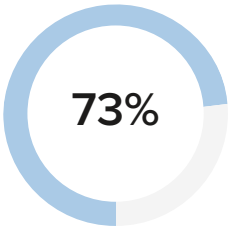


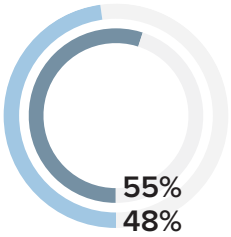
A large majority (78 percent) of surveyed micro, small, and medium enterprises (MSMEs) reported using digital tools[i] for business purposes in the past year during COVID-19.



Online respondents looked favorably on digital tool use during the pandemic: a large majority (77 percent) of surveyed online MSMEs reported that digital tools were important or essential to keeping their business running during COVID-19.[ii]



MSMEs recognized the importance of new digital tools during COVID-19: surveyed online MSMEs reported that Facebook apps[iii] (73 percent) helped them adapt to the COVID-19 environment.



Social media tools played a role across the spectrum of business functions about which surveyed MSMEs were asked, with WhatsApp cited as a critical tool across multiple business activities for online MSMEs: more than half of online MSMEs reported recently using WhatsApp for communication-oriented business activities, specifically communicating with customers (55 percent) and suppliers (48 percent), in the past 30 days.

Peru is one of the best-performing economies[iv] in Latin America, with a large micro, small, and medium enterprise (MSME)[v] sector underpinning its growth until the COVID-19-induced economic slowdown in 2020. 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 Peru's MSME community during the pandemic.[1] A survey conducted by DAI and Ipsos between May to July 2021 found that a large majority (78 percent) of surveyed MSMEs were online, meaning that they had reported using digital tools for business purposes over the past year during COVID-19.[vi] Additionally, a large majority (77 percent) of surveyed online MSMEs reported that digital tools were important or essential to keeping their business running during COVID-19.

Surveyed MSMEs recognized the importance of embracing new digital tools during COVID-19. More than half (73 percent) of surveyed online MSMEs reported

i "Digital tools" refers to Internet-based technologies and social media. This is a broad term that includes the use of the internet in any of the following activities: social media platforms, such as Facebook, Facebook Messenger, Facebook Marketplace, WhatsApp, or Instagram; other social media platforms, such as Twitter, TikTok, LinkedIn, SnapChat, Pinterest, Tumblr, Reddit, ot YouTube; other messaging applications, such as Viber, Line, WeChat, QQ, or Telegram; business software or cloud computing, such as Microsoft Office, Word or Excel, Google Drive, Docs or Sheets, or Amazon Web Services); e-commerce websites, such as Amazon, Alibaba, Etsy, or Mercado Libre; email, such as Gmail, Hotmail, or Yahoo; mobile banking and digital payments, such as PayPal, Venmo, Yape, or Plin; videoconferencing, such as Zoom, Skype, or Google Hangouts.

ii 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.

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

iv "With annual real GDP growth averaging 5.4 percent over the past 15 years, Peru has been one of the fastest-growing economies in the region." IMF Peru Country Report No. 20/3. International Monetary Fund. January 2020. Accessed September 2021. https://www.imf.org/en/Publications/CR/Issues/2020/01/13/Peru-2019-Article-IV-Consultation-Press-Release-Staff-Report-Staff-Statement-and-Statement-48942

v This report uses the term "micro, small, and medium enterprises" (MSMEs) to refer to the businesses surveyed for this research, in line with the terminology used by multilateral institutions such as the International Finance Corporation and the United Nations. Although many countries have different official definitions of MSMEs (including Peru, where the government officially classifies MSMEs by number of employees), DAI applied a standardized definition for consistency across all survey countries, based on the number of full-time, part-time, or seasonal employees or workers (including the respondent): micro (one employee), small (two to nine employees), and medium (10 to 249 employees).

vi This survey collected evidence directly from 997 MSME owners and top-level managers in Peru 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.

that Facebook apps helped them adapt to the COVID-19 environment, with 69 percent specifically citing WhatsApp. Online MSMEs reported using Facebook apps in the past 30 days across the spectrum of business activities about which they were asked, such as communicating with customers (57 percent), communicating with suppliers (50 percent), and marketing to customers (47 percent). Additionally, more than half (55 percent) of online MSMEs reported using WhatsApp to communicate with customers in the past 30 days.

Offline MSMEs perceived a lack of knowledge to be a key barrier affecting their digital tool use, while internet connectivity was an important concern for online MSMEs. More specifically, lack of knowledge was the most frequently cited difficulty (29 percent), and topped the list of most challenging difficulties (10 percent), offline MSMEs reported their business faced when using digital tools. In contrast, the most frequently reported difficulty that online MSMEs reported their business faced in using digital tools was poor or no internet connectivity (39 percent), which also topped their list of most challenging difficulties (12 percent). At 18 percent, a lack of knowledge was the second-most frequently cited difficulty that surveyed online MSMEs reported their business faced in using digital tools. These findings suggest that stakeholders in the public, private, and development sectors could consider investments that promote competitive and innovative markets for internet access to ensure sufficient connectivity so that these MSMEs can use the full range of digital tools.

With concentrated efforts by policymakers and other stakeholders to address the key barriers faced by both online and offline MSME segments, Peru'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 Peru 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 North America, South America, South Asia, and Southeast Asia. This brief provides an overview of findings from face-to-face surveys that Ipsos conducted with 997 micro, small, and medium enterprises (MSMEs) in Peru via computer-assisted personal interviewing (CAPI) from May 27 to July 1, 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 Peru's Ministry of Production Monthly Industrial Statistics were used to set targets for the number of completed surveys by categories of business size, as defined by the number of employees: micro (one employee), small (two to nine employees), and medium (10 to 249 employees) businesses.[vii] A random walk method was implemented to conduct interviews in urban and rural areas within 18 of Peru's 25 regions, capturing businesses across key segments including owner gender, business urbanicity, and business sector. The final survey results presented in this report were weighted based on geography and differential non-response rates by region, urbanity, and gender.

Due to the limitations of the sampling and availability of official statistics, the sample should not be considered to be representative of formal and informal businesses in Peru. A complete explanation of the sample design and research methodology is found in Appendix I.

vii 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

Peru is one of the best-performing economies[viii] in Latin America, with a large micro, small, and medium enterprise (MSME)[ix] sector underpinning its growth until the COVID-19-induced economic slowdown in 2020. By allowing some MSMEs to quickly pivot online and maintain their core business functions, digital tools (defined here as internet-based technologies)[x] have become increasingly important to Peru's MSME community during the pandemic.[2]

A new survey conducted by DAI and Ipsos from May to July 2021 collected evidence directly from 997 MSME owners and top-level managers in Peru 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.[xi] Research findings also delve into differences in digital tool use across key business segments within Peru, such as women-owned MSMEs, rural MSMEs, 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, Peru 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 Nations 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 conduct basic business functions, the survey identified challenges that such MSMEs face regarding 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 use 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.

viii "With annual real GDP growth averaging 5.4 percent over the past fifteen years, Peru has been one of the fastest-growing economies in the region." IMF Peru Country Report No. 20/3. International Monetary Fund. January 2020. Accessed September 2021. https://www.imf.org/en/Publications/CR/Issues/2020/01/13/Peru-2019-Article-IV-Consultation-Press-Release-Staff-Report-Staff-Statement-and-Statement-48942

ix This report 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. Although many countries have different official definitions of MSMEs (including Peru, where the government officially classifies MSMEs by number of employees), DAI applied a standardized definition for consistency across all survey countries, based on the number of full-time, part-time, or seasonal employees or workers (including the respondent): micro (one employee), small (two to nine employees), and medium (10 to 249 employees).

x "Digital tools" refers to Internet-based technologies and social media. This is a broad term that includes the use of the internet in any of the following activities: social media platforms, such as Facebook, Facebook Messenger, Facebook Marketplace, WhatsApp, or Instagram; other social media platforms, such as Twitter, TikTok, LinkedIn, SnapChat, Pinterest, Tumblr, Reddit, ot YouTube; other messaging applications, such as Viber, Line, WeChat, QQ, or Telegram; business software or cloud computing, such as Microsoft Office, Word or Excel, Google Drive, Docs or Sheets, or Amazon Web Services); e-commerce websites, such as Amazon, Alibaba, Etsy, or Mercado Libre; email, such as Gmail, Hotmail, or Yahoo; mobile banking and digital payments, such as PayPal, Venmo, Yape, or Plin; videoconferencing, such as Zoom, Skype, or Google Hangouts.

xi Research findings reported in this series should not be considered representative of country MSMEs due to the limitations of the surveys. See methodology appendices for more information.

COVID-19 AND MSMEs IN PERU

The COVID-19 pandemic has presented significant challenges for Peru's economy: Peru experienced an 11.1 percent decline in gross domestic product (GDP)[3] and an employment rate decline of 20 percent between April and December of 2020[4] as the COVID-19 pandemic spread through Latin America. Employing almost more than 60 percent of Peru's labor force,[5] MSMEs are central to Peru's economy and were especially impacted by the pandemic, as their operations relied heavily on in-person transactions.[6]

In response to the COVID-19 pandemic, MSMEs in Peru have embraced digital technology. For example, according to a study conducted by the Tallinn University of Technology, Peruvian SMEs adapted to COVID-19-related economic shocks by incorporating online platforms into their business strategies to serve customers and to improve company efficiency during quarantine.[7] They are also innovating and developing their online stores to serve customers even during times of quarantine.[8] To that end, in October 2020, 69 percent of surveyed small and medium-sized businesses (SMBs) reported that 25 percent or more of their sales were made digitally in the past month.[9] The 2020 Global State of Small Business Report found that almost 40 percent of surveyed SMBs had a higher proportion of digital sales in late 2020 than in the period preceding the pandemic.[10]

SAMPLE OVERVIEW

This survey had 997 MSME respondents comprised of business owners and top-level managers; the below percentages provide detail on the sample.

Gender

70% of MSMEs reported that the business had **female owner/s**

53% of MSME respondents were **female**

47% of MSME respondents were **male**

Urbanicity

73% of MSMEs were located in **urban areas**

21% of MSMEs were located in **suburban areas**

6% of MSMEs were located in **rural areas**

Sector

30% of MSMEs reported that their primary product or service was in the **retail and e-commerce** sector[viii]

21% of MSMEs reported that their primary product or service was in the **manufacturing and industry** sector

19% of MSMEs reported that their primary product or service was in the **hospitality** sector

5% of MSMEs reported that their primary product or service was in the **agriculture and food production** sector

5% of MSMEs reported that their primary product or service was in the **professional services** sector

Customer base

70% of MSMEs reported that their business primarily **served consumers**

28% of MSMEs reported that their business served **both businesses and consumers**

2% of MSMEs reported that their business primarily served **other businesses**

Business owner education

95% of MSMEs had business owners with a **secondary education or higher**

4% of MSMEs had business owners with **less than a secondary education**

Age of business owner

55% of MSMEs had business owners **aged 18-44**

45% of MSMEs had business owners **aged 45+**

Bank account access

41% of MSMEs reported that they had **access to a bank account**

xii Twenty percent of respondents chose “other” as their primary product or service.

MSMEs AND DIGITAL TOOL USE: SNAPSHOTS IN TIME

Surveyed MSMEs in Peru increasingly used digital tools to run their businesses during COVID-19. Online MSMEs[xiii] primarily used their mobile phones to connect to the internet, highlighting the importance of mobile phones in doing business among Peru's online MSMEs.

MSME use of digital tools for business purposes rose in the past year during COVID-19. Usage has declined slightly in the past 30 days, but remains higher than pre-COVID-19[xiv]:

62% of MSMEs reported that they had ever used digital tools for business purposes **prior to the COVID-19 pandemic**

78% of MSMEs reported that they used digital tools for business purposes **in the past year during COVID-19**

74% of MSMEs reported that they had used digital tools for business purposes **in the past 30 days**

Over three-quarters of online MSMEs used mobile phones to connect to the internet:

78% of online MSMEs reported that they primarily used a **mobile phone** to connect to the internet

20% of online MSMEs reported that they primarily use a **laptop or PC** to connect to the internet

xiii 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.

xiv 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 $p > 0.05$.

Difference in use of digital tools for business purposes in the past 30 days and use of digital tools for business purposes prior to COVID-19 is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

xv Other answer options included tablets, don't know, or refused.

KEY INSIGHTS FOR POLICYMAKERS

Survey findings demonstrate that a relatively large number of surveyed MSMEs in Peru reported using digital tools for business purposes before the pandemic, and they increased their usage of these tools during COVID-19. While 62 percent of surveyed MSMEs reported using digital tools for business purposes prior to the COVID-19 pandemic, 78 percent reported using them for the same purpose in the past year during COVID-19. Although their reported use decreased slightly in the past 30 days, to 74 percent, this digital tool usage rate is higher than before COVID-19's onset. These survey results demonstrate that there is a critical mass of MSMEs that have already begun their digital transformation before or during the pandemic. This presents a promising opportunity for public, private, and development sector stakeholders to directly engage with those MSMEs that are not yet using digital tools, or that are not yet maximizing their digital tool use, to help them keep pace with market changes and to continue to stay competitive as their MSME peers digitize their business operations.

Throughout emerging markets, mobile phones are a key way that individuals access the internet.[11] According to the survey results, online MSMEs in Peru were no exception. A large majority (78 percent) of surveyed online MSMEs reported that they primarily used mobile phones to connect to the internet, while only 20 percent of surveyed online MSMEs reported primarily using a laptop or PC for this purpose. GSMA's Mobile Economy Latin America 2020 Report anticipates that Peru will gain three million new mobile internet subscribers between 2019 and 2025, which would increase the country's 73 percent subscriber penetration level in 2019 to 76 percent in 2025.[12] Given the already widespread (and growing) use of mobile phones to access the internet among surveyed MSMEs, public, private, and development sector stakeholders could look for opportunities to enhance MSME use of mobile internet as an accessible "on ramp" for expanding digital tool use amongst offline MSMEs.

HOW MSMEs MANAGE KEY BUSINESS ACTIVITIES

Surveyed MSMEs used a variety of both online and offline tools to manage the key business activities about which they were asked, with Facebook apps as an especially crucial tool. In particular, WhatsApp was frequently used across nearly all business activities about which surveyed MSMEs were asked. Despite the important role played by Facebook apps, offline methods[xvi] maintained a foothold among surveyed online MSMEs, particularly for communicating with customers and with suppliers. Surveyed offline MSMEs also reported frequently using offline methods, especially face-to-face interactions, for their customer-facing work. An interview with the owner of Actúa Verde – a microenterprise specializing in natural cleaning, clean make-up, and self-care products – demonstrates how one female entrepreneur used digital tools to transition to a 100% online business during COVID-19. See page 20 for case study.

Of the business activities about which they were asked, WhatsApp was most frequently used for external communications among surveyed online MSMEs:

42% 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

48% of online MSMEs reported that they used WhatsApp to **communicate with suppliers** in the past 30 days

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

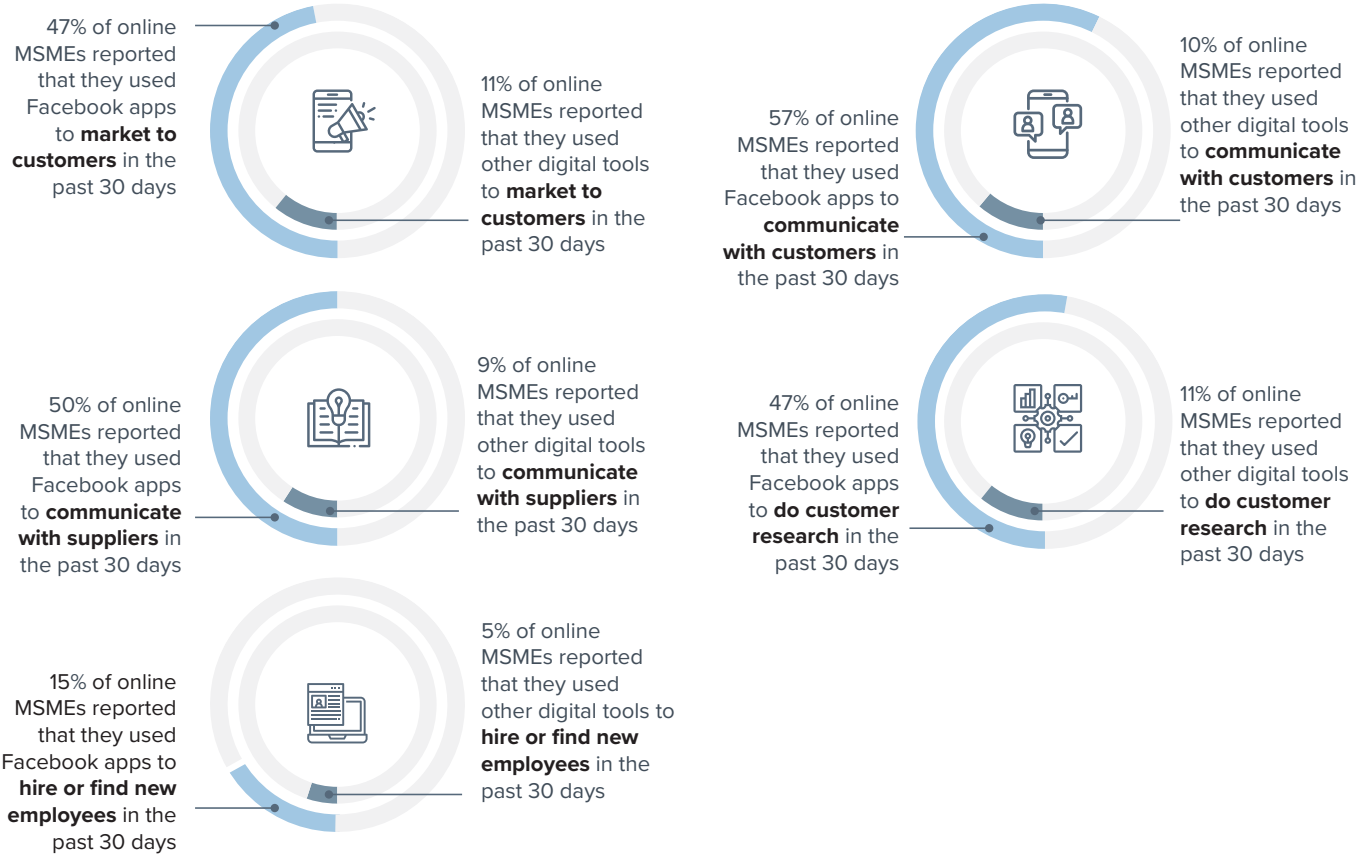
12% of online MSMEs reported that they used WhatsApp to **hire or find new employees** in the past 30 days

xvi The term "offline methods" includes face-to-face interaction; paper-based methods such as letters, fliers or billboards; and through a telephone call, SMS, or text message (does not include WhatsApp).

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, roughly half (51 percent) of MSMEs reported that they have ever used digital tools to sell goods and services. Survey results also showed a considerable increase in the use of digital tools to sell goods and services during the COVID-19 pandemic. More specifically, 28 percent of MSMEs reported that they used digital tools to sell goods and services prior to COVID-19, which then increased to 43 percent during COVID-19 and plateaued at 44 percent in the past 30 days.[xvii] A similar pattern emerged when looking specifically at the use of social media for sales purposes, with 26 percent of MSMEs reporting that they had ever used social media to sell goods and services prior to COVID-19. This percentage increased to 42 percent during COVID-19 and remained steady at 42 percent in the past 30 days.[xviii] This finding illustrates that social media is an important digital tool for selling goods and services among surveyed MSMEs in Peru.

A higher percentage of surveyed online MSMEs reported using Facebook apps than other digital tools to conduct each business activity about which they were asked [xix]…



xvii Difference between use of digital tools to sell goods and services in the past year and prior to COVID-19 is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

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 $p > 0.05$.

xviii Difference between use of social media to sell goods and services in the past year and prior to COVID-19 is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

Difference between use of social media 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 $p > 0.05$.

xix Difference between use of Facebook apps and use of other digital tools for each business activity in question is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

...And a higher percentage of surveyed online MSMEs[xx] stated that Facebook apps were very important for each business activity about which they were asked than other digital tools...

33% of online MSMEs reported that Facebook apps were very important for **marketing to customers**

7% of online MSMEs reported that other digital tools were very important for **marketing to customers**

45% of online MSMEs reported that Facebook apps were very important for **communicating with customers**

5% of online MSMEs reported that other digital tools were very important for **communicating with customers**

36% of online MSMEs reported that Facebook apps were very important for **communicating with suppliers**

5% of online MSMEs reported that other digital tools were very important for **communicating with suppliers**

32% of online MSMEs reported that Facebook apps were very important for **doing customer research**

5% of online MSMEs reported that other digital tools were very important for **doing customer research**

9% of online MSMEs reported that Facebook apps were very important for **hiring and finding new employees**

2% of online MSMEs reported that other digital tools were very important for **hiring and finding new employees**

...But offline methods[xxi] were the most frequently reported method for surveyed online MSMEs across all business activities about which they were asked:

59% of online MSMEs reported that they used offline methods to **market to customers** in the past 30 days

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

74% of online MSMEs reported that they used offline methods to **communicate with suppliers** in the past 30 days

70% of online MSMEs reported that they used offline methods to **do customer research** in the past 30 days

49% of online MSMEs reported that they used offline methods to **hire or find new employees** in the past 30 days

xx Difference between percent reporting Facebook apps as very important and percent reporting other digital tools as very important for each business activity in question is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

xxi The term "offline methods" includes face-to-face interaction; paper-based methods such as letters, fliers or billboards; and through a telephone call, SMS, or text message (does not include WhatsApp).

Offline MSMEs reported using offline methods for external communications and customer research more frequently than other business activities about which they were asked:

45% of offline MSMEs reported that they used offline methods to **market to customers** in the past 30 days

68% of offline MSMEs reported that they used offline methods to **communicate with customers** in the past 30 days

63% of offline MSMEs reported that they used offline methods to **communicate with suppliers** in the past 30 days

66% of offline MSMEs reported that they used offline methods to **do customer research** in the past 30 days

20% of offline MSMEs reported that they used offline methods to **hire or find new employees** in the past 30 days

Surveyed MSMEs reported ever having difficulty with customer research and external communications at a higher rate than for other business activities about which they were asked [xxii]:

28% of MSMEs reported ever having difficulty **marketing to customers**

31% of MSMEs reported ever having difficulty **communicating with customers**

36% of MSMEs reported ever having difficulty **communicating with suppliers**

42% of MSMEs reported ever having difficulty **doing customer research**

18% of MSMEs reported ever having difficulty **hiring or finding new employees**

xxii Difference between difficulty in communicating with customers and difficulty in marketing to customers is not statistically significant per Chi-squared goodness of fit test, adjusted $p > 0.05$.

Difference between difficulty in communicating with suppliers and difficulty in marketing to customers is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

A high percentage of MSMEs in the manufacturing and industry sector reported using digital tools for business purposes

A higher percentage of surveyed MSMEs in the manufacturing and industry sector reported business-related digital tool use prior to COVID-19, during COVID-19, and in the past 30 days than MSMEs in other sectors. More specifically, 71 percent of MSMEs in the manufacturing and industry sector reported that they had ever used digital tools for business purposes prior to the COVID-19 pandemic, compared to 58 percent of MSMEs in the professional services sector and 54 percent in the retail and e-commerce sector.[xxiii] [xxiv] These percentages all increased during COVID-19, though the manufacturing and industry percentage remained the highest, followed by professional services: 81 percent of MSMEs in manufacturing and industry, 78 percent in professional services, and 70 percent in retail and e-commerce reported that they used digital tools for business purposes in the past year since COVID-19.[xxv] Though the percentages all dipped slightly, this pattern also held true for more recent digital tool usage: 79 percent of MSMEs in manufacturing and industry, 76 percent in professional services, and 64 percent in retail and e-commerce reported that they had used digital tools for business purposes in the past 30 days.[xxvi] Across all three sectors, digital tool usage in the past 30 days was considerably higher than prior to COVID-19, which suggests that surveyed MSMEs may have begun more permanently adopting digital tools that they turned to when adapting to COVID-19.

Echoing the previous findings, a higher percentage of MSMEs in manufacturing and industry perceived digital tools to be crucial to their pandemic response. More specifically, 84 percent of online MSMEs in the manufacturing and industry sector reported that digital tools were important or essential to keeping their business running during COVID-19, compared to 73 percent of online MSMEs in professional services and 69 percent of online MSMEs in retail and e-commerce.[xxvii] Across all three sectors, Facebook apps were the most frequently cited digital tool that MSMEs reported helping them adapt to COVID-19: 81 percent of online MSMEs in manufacturing and industry, 66 percent in professional services, and 69 percent in retail and e-commerce reported that Facebook apps helped them adapt to the COVID-19 environment.[xxviii] It is notable that a slightly higher percentage of online MSMEs in retail and e-commerce than in professional services reported that Facebook apps helped them adapt, which could indicate the relative importance of Facebook apps to MSMEs in the retail and e-commerce sector. A considerable percentage of online MSMEs in each sector also reported that digital payment tools helped them adapt to the COVID-19 environment, including 58 percent of online MSMEs (each) in the professional services sector and in the manufacturing and industry sector and 43 percent of MSMEs in the retail and e-commerce sector.[xxix] This finding indicates that MSMEs across all sectors turned to simple and intuitive digital tools to help them adjust to new economic realities during the COVID-19 pandemic.

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xxiii Though this survey finding about the retail and e-commerce sector is lower than expected, it may be due to retail and e-commerce MSMEs being combined into a single sector category, rather than two separate categories.

xxiv Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

xxv Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

xxvi Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

xxvii Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

xxviii Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

xxix Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

KEY INSIGHTS FOR POLICYMAKERS

The survey results indicate that Facebook apps were a critical tool for Peru's surveyed online MSMEs in Peru when conducting the key business activities about they were asked. For each activity, a higher percentage of surveyed online MSMEs reported using Facebook apps than other digital tools. For example, more than half (57 percent) of online MSMEs reported that they used Facebook apps to communicate with customers in the past 30 days, compared to only 10 percent of online MSMEs about other digital tools. Similarly, a larger percentage of surveyed online MSMEs reported that Facebook apps were very important for conducting each business activity about which they were asked than other digital tools. Further, WhatsApp emerged as a valuable tool for conducting many business activities about which surveyed online MSMEs were asked, especially external communication. For example, over half (55 percent) of surveyed online MSMEs reported that they used WhatsApp to communicate with customers in the past 30 days, and just under half (48 percent) of surveyed online MSMEs reported using WhatsApp to communicate with suppliers over the same timeframe. These findings point to the importance of public, private, and development sector stakeholders continuing to promote the use of simple and intuitive digital tools among Peru's MSME community.

However, surveyed online and offline MSMEs alike also reported frequently using offline methods to conduct all business activities about which they were asked, particularly for external communication and customer research. Offline methods were the most frequently reported method for surveyed online MSMEs to communicate with customers (78 percent), communicate with suppliers (74 percent) and conduct customer research (70 percent) in the past 30 days. Similarly, more than half of surveyed offline MSMEs also reported using on offline methods for communication with customers and suppliers. For example, 68 percent of offline MSMEs reported that they used offline methods to communicate with customers in the past 30 days. In this context, public, private, and development have an opportunity to develop digital tools for specific business functions that can support – rather than replace – the ways that MSMEs currently operate. For example, stakeholders might consider training MSMEs on how to use digital tools to track and document their face-to-face meetings, to hire new employees, or to track digital and cash payments.

MSMEs DURING THE COVID-19 PANDEMIC

The COVID-19 pandemic was a challenge for surveyed MSMEs in Peru, corresponding with a decrease in sales and business closures for many survey respondents. In this difficult economic environment, a large majority of surveyed MSMEs reported that digital tools were important or essential to keeping their business running during COVID-19.

More than half of MSMEs reported that their sales decreased during the COVID-19 pandemic:

71% of MSMEs reported that their **business closed at some point** during COVID-19

63% of MSMEs reported that their **sales decreased** during COVID-19 compared to a typical year

31% of MSMEs reported that their **sales decreased by more than half** of a typical year

25% of MSMEs reported that their **sales increased or stayed approximately** the same during COVID-19 compared to a typical year

Digital tools helped MSMEs adapt to the COVID-19 environment:

77% of online MSMEs reported that **digital tools were important or essential** to keeping their business running during COVID-19

73% of online MSMEs reported that **Facebook apps** helped them adapt to the COVID-19 environment

69% of online MSMEs reported that **WhatsApp** helped them adapt to the COVID-19 environment

54% of online MSMEs reported that **digital payment tools** helped them adapt to the COVID-19 environment

32% of online MSMEs reported that **other digital tools** helped them adapt to the COVID-19 environment

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

More than half of online microenterprises reported that digital tools were important or essential to keeping their business running during COVID-19

Prior to COVID-19, during COVID-19, and in the past 30 days, a higher percentage of surveyed medium-sized businesses reported using digital tools than small businesses or microenterprises. More specifically, 48 percent of microenterprises, 64 percent of small enterprises, and 88 percent of medium-sized businesses reported using digital tools for business purposes prior to the COVID-19 pandemic.[xxx] These percentages all increased in the past year during COVID-19 to 68 percent for microenterprises, 80 percent for small enterprises, and 95 percent of all medium-sized enterprises.[xxxi] These percentages then dipped back down to 63 percent for microenterprises and 74 percent for small enterprises, but remained constant at 95 percent for medium-sized enterprises during this time period.[xxxii] This finding indicates that medium-sized enterprises are continuing to use digital tools at the same rate that they did during the pandemic, though it is also important to note that microenterprise and small enterprise digital tool use remained notably higher in the past 30 days than prior to the pandemic.[xxxiii] This suggests that surveyed MSMEs across all business sizes have largely continued to use digital tools that they adopted during COVID-19.

More than half of MSMEs across all business sizes perceived digital tools to be crucial to their pandemic response. More specifically, 69 percent of online microenterprises reported that digital tools were important or essential to keeping their business running during COVID-19, as did a large majority of small enterprises (75 percent) and medium-sized enterprises (88 percent).[xxxiv] This finding indicates that larger MSMEs appeared to place greater emphasis on the role of digital tools during the pandemic, which aligns with the digital tool usage rates described in the previous paragraph. In terms of specific digital tools that online MSMEs reported helping them adapt to the COVID-19 environment, the most frequently reported answer option across all three business sizes was Facebook apps, followed by digital payment tools. 67 percent of online microenterprises, 71 percent of online small enterprises, and 84 percent of online medium-sized enterprises reported that Facebook apps helped them adapt to the COVID-19 environment, as did 50 percent of online microenterprises, 53 percent of online small businesses, and 61 percent of online medium-sized businesses about digital payment tools.[xxxv] This finding aligns with the well-documented phenomenon of technological leapfrogging, by which entrepreneurs in emerging markets bypass the use of established technologies in favor of more innovative ones.[13]

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xxx Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

xxxi Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

xxxii Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

xxxiii Among each MSME business size segment, the difference between digital tool use in the past 30 days and digital tool use in the past year is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$ and the 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 $p < 0.05$.

Among MSMEs in the professional services sector, the difference between digital tool use in the past 30 days and digital tool use prior to COVID-19 is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

xxxiv Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

xxxv All MSMEs: statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

Online MSMEs: statistically significant per Chi-squared test of independence, adjusted $p < 0.05$..

KEY INSIGHTS FOR POLICYMAKERS

Survey results show that the economic slowdown stemming from the COVID-19 pandemic negatively affected many surveyed MSMEs' sales throughout Peru. Sixty-three percent of surveyed MSMEs reported that their sales decreased during COVID-19 compared to a typical year, and 31 percent of MSMEs reported that their sales decreased by more than half of a typical year. Reflecting COVID-19's far-reaching economic disruptions, 71 percent of respondents reported that their business closed at some point during the pandemic. However, digital tools were critical to online MSMEs' pandemic response. A large majority (77 percent) of surveyed online MSMEs reported that digital tools were important or essential to keeping their businesses running during COVID-19.

Despite the challenges posed by COVID-19, a quarter (25 percent) of surveyed MSMEs reported that their sales actually increased or stayed approximately the same during COVID-19 compared to a typical year. While it is unclear what factors led to this improvement or maintenance of business activity, online MSMEs' responses to questions about which digital tools were important or helped them adapt to the COVID-19 environment offer some insight. Seventy-three percent of surveyed online MSMEs reported that Facebook apps helped them adapt to the COVID-19 environment, and over half (54 percent) of surveyed online MSMEs also reported the same about digital payment tools. These findings indicate that online MSMEs in Peru appeared to favor simple and intuitive digital tools, like Facebook apps and digital payments, when adjusting to the new economic environment. Stakeholders in the public, private, and development sectors can support offline MSMEs with the training and skills needed to keep up with online MSMEs that are already using digital tools in their COVID-19 response. This kind of support has the potential to fill the gap between online and offline MSMEs, increasing the likelihood that offline MSMEs can benefit from increased digitization during Peru's journey towards economic recovery.

Woman-owned MSME

CASE STUDY

ACTÚA VERDE

www.facebook.com/actuaverdeperu/

www.instagram.com/actuaverde

RETAIL & E-COMMERCE | MICRO-ENTERPRISE | URBAN | SDG 12: RESPONSIBLE CONSUMPTION AND PRODUCTION

After retiring from her career as a lawyer in 2015, Martha realized that savvy young consumers in Peru were becoming increasingly aware of the environmental impact of cosmetic and cleaning products in the market. To capitalize on this trend and build a community of environmentally-conscious consumers, Martha started Actúa Verde in Lima to sell natural cleaning, self-care, and clean makeup products. Actúa Verde promotes a sustainable lifestyle to inspire and educate consumers across Peru about its benefits. This aligns to SDG 12 to ensure sustainable consumption and production, as Martha sources locally-produced raw materials to create consumer products in an environmentally- and socially-responsible way.

Martha has tried multiple different ways to spread the news about her eco-friendly products. A solo entrepreneur, Martha first started sharing her products on Facebook groups to generate traffic to her physical store. However, with COVID-19 restrictions limiting in-person interactions at her physical store, she soon realized the potential value of the tools to sell her products and reach new clients, pivoting to 100 percent online business during the past year. She integrated creative ways to engage with customers such as providing personalized analyses for facials and product recommendations on WhatsApp. Martha also learned new skills, taking classes on photo- and video-editing tools during quarantine to boost her graphics and ads on Instagram and Facebook. Her profiles not only include products for sales, but also information on the benefits of natural products. Despite having to close her face-to-face store, Martha has continued to maintain business operations during COVID-19. Through the use of digital tools, she continues to grow her digital business and share awareness of the importance of sustainable production of consumer goods.

> "I am thankful to Facebook because I have learned a lot about marketing and it is so helpful to communicate with and learn from other small business owners. Not just to sell products, but also to build a community of people who care about their carbon footprints."

BARRIERS TO THE ADOPTION AND USE OF DIGITAL TOOLS AMONG MSMEs

For surveyed online MSMEs, poor or no internet connectivity was the most frequently cited difficulty *and* most challenging difficulty in using digital tools, while surveyed offline MSMEs reported the same about a lack of knowledge. Both online and offline MSMEs indicated high interest in learning more about using digital tools to interface with customers.

The most frequently reported difficulty for online MSMEs was internet connectivity, while offline MSMEs more often cited lack of knowledge:

39% of online MSMEs reported that **poor or no internet connectivity** was a difficulty their business faced in using digital tools

29% of offline MSMEs reported that **lack of knowledge** was a difficulty their business faced in using digital tools

18% of online MSMEs reported that **lack of knowledge** was a difficulty their business faced in using digital tools

14% of online MSMEs reported that **lack of customer interest** was a difficulty their business faced in using digital tools

22% of offline MSMEs reported that **high cost** was a difficulty their business faced in using digital tools

15% of offline MSMEs reported that **lack of customer interest** was a difficulty their business faced in using digital tools

Online MSMEs were also more likely to cite internet connectivity as their most challenging difficulty[xxxvi] in using digital tools, while offline MSMEs most frequently cited a lack of knowledge:

12% of online MSMEs reported that **poor or no internet connectivity** was the most challenging difficulty their business faced in using digital tools

10% of offline MSMEs reported that **needing more knowledge** was the most challenging difficulty they faced in using digital tools

xxxvi When asked what was their most challenging difficulty using digital tools, responses were coded to fit 18 options. The options displayed in this figure correspond to those displayed in the prior graph where most common difficulties are displayed. Options: need more knowledge or know-how; poor or no internet connectivity; it is too expensive or the costs are too high; difficult to access a mobile phone, tablet, or computer; do not have consistent access to electricity; customers do not use them; suppliers do not use them; they are not relevant to this business or do not see a need for them; do not trust digital transactions, fear of information being stolen; hard to comply with legal requirements such as digital security and consumer protection standards; not enough relevant posts, articles, pictures or videos in my local language; fear of accessing inappropriate or offensive posts, articles, pictures or videos; digital tools were not effective or did not work; nothing prevents this business from using the internet, social media, or digital tools; other; don't know; refused.

A much higher percentage of surveyed online MSMEs compared to offline MSMEs reported that they were self-taught on using digital tools[xxxvii]

62% of online MSMEs reported that they were **self-taught** on how to use digital tools

15% of offline MSMEs reported that they were **self-taught** on how to use digital tools

49% of online MSMEs reported that they learned how to use digital tools from their **friends or family**

32% of offline MSMEs reported that they learned how to use digital tools from their **friends and family**

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

74% of online MSMEs reported that they were interested in learning more about using digital tools to **market their business**

51% of offline MSMEs reported that they were interested in learning more about using digital tools to **market their business**

68% of online MSMEs reported that they were interested in learning more about using digital tools to **find new customers**

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

63% of online MSMEs reported that they were interested in learning more about using digital tools to **communicate with existing customers**

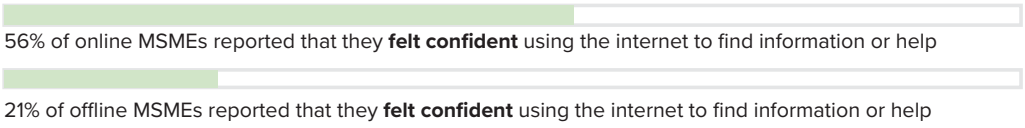
50% of offline MSMEs reported that they were interested in learning more about using digital tools to **communicate with existing customers**

32% of offline MSMEs reported that **more education and training** would make them more likely to use digital tools

45% of offline MSMEs reported that **training on how to use digital tools for communicating with existing customers** would benefit their

xxxvii Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

Surveyed online MSMEs were more than twice as likely to report feeling confident in using digital tools for the same activities than offline MSMEs:



A lack of knowledge was the most frequently reported difficulty in using digital tools for offline women-owned MSMEs, as was poor or no internet connectivity for online women-owned MSMEs

Women-owned MSMEs in Peru reported similar rates of digital tool usage to men-owned MSMEs prior to COVID-19 and in the past year during COVID-19. Specifically, 60 percent of women-owned MSMEs reported using digital tools prior to COVID-19, while 67 percent of men-owned MSMEs reported the same.[xxxviii] While there were large increases in digital tool usage for business purposes across both women-owned and men-owned MSMEs in the past year during COVID-19, these increases were larger among women-owned MSMEs: digital tool use in the past year among women-owned MSMEs increased to 79 percent – a difference of 19 percentage points.[xxxix] By comparison, 74 percent of men-owned MSMEs reported using digital tools for business purposes in the past year, a seven percentage point increase.[xl] This difference in magnitude provides evidence that while the COVID-19 pandemic may have prompted surveyed women-owned and men-owned MSMEs to adopt the usage of digital tools, these changes were most pronounced among women-owned businesses. These findings also align with 2020 research from the Mastercard Index of Women Entrepreneurs estimating that 42 percent of women business owners have shifted to a digital business model.[14]

xxxviii Not statistically significant for either time period per Chi-squared test of independence, adjusted $p > 0.05$.

xxxix Difference between digital tool usage prior to COVID-19 and in the past year among women-owned MSMEs is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

xl Difference between digital tool usage prior to COVID-19 and in the past year among men-owned MSMEs is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

(continued)

There were few differences between how women-owned and men-owned MSMEs reported using specific digital tools across time periods. However, there was a significant difference in the use of email prior to COVID-19: 42 percent of men-owned businesses used this tool in this timeframe, compared to 33 percent of women-owned MSMEs.[xli] However, this difference diminished greatly when asked if email was used for business purposes in the past year: 38 percent of women-owned MSMEs compared to 41 percent of men-owned MSMEs reported using email for business purposes in the past year.[xlii] Combined with an increase in the use of innovative digital tools like digital payments tools and Facebook apps in the past year during COVID-19 among women-owned and men-owned MSMEs, these findings suggest that women-owned MSMEs increased their use of innovative and more traditional digital tools like email, while men-owned MSMEs showed an increase more specifically to more innovative digital tools.[xliii]

Zeroing in women-owned MSMEs, online and offline women-owned MSMEs reported similar difficulties in using digital tools – though at different rates. For example, lack of knowledge was the most frequently cited difficulty which offline women-owned MSMEs (29 percent) reported that their business faced when using digital tools, and the second-most frequently cited by online women-owned MSMEs (19 percent). Similarly, high cost was the third-most frequently cited difficulty among online MSMEs (14 percent) and second-most among offline MSMEs (22 percent). However, there were also important differences between groups: poor or no internet connectivity was the most frequently cited difficulty which online women-owned MSMEs (38 percent) reported that their business faced when using digital tools, but fourth-most frequently cited for offline women-owned MSMEs (14 percent).[xliv] This finding indicates that a one-size-fits-all approach may not be well-suited to increasing women-owned MSMEs' use of digital tools. Tailored programming that meets the needs of these two distinct MSME segments may be more likely to succeed in increasing digital tool utilization rates among Peru's women-owned MSMEs.

xli Statistically significant per Chi-squared test of independence, adjusted $p < 0.05$.

xlii Not statistically significant per Chi-squared test of independence, adjusted $p > 0.05$.

xliii Among women-owned and men-owned MSMEs, the difference in use of digital payments tools prior to COVID-19 and in the past year during COVID-19 is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

Among women-owned and men-owned MSMEs, the difference between Facebook apps prior to COVID-19 and in the past year during COVID-19 is statistically significant per Chi-squared goodness of fit test, adjusted $p < 0.05$.

xliv Difference between online and offline women-owned MSMES reporting lack of knowledge as a difficulty: statistically significant for any time period per Chi-squared test of independence, adjusted $p < 0.05$.

Difference between online and offline women-owned MSMES reporting high costs as a difficulty: statistically significant for any time period per Chi-squared test of independence, adjusted $p < 0.05$.

Difference between online and offline women-owned MSMES reporting poor or no internet connectivity as a difficulty: statistically significant for any time period per Chi-squared test of independence, adjusted $p < 0.05$.

KEY INSIGHTS FOR POLICYMAKERS

Surveyed offline MSMEs perceived a lack of knowledge to be a key barrier affecting their digital tool use, while internet connectivity was an important concern for surveyed online MSMEs. More specifically, lack of knowledge was the most frequently cited difficulty (29 percent), and topped the list of most challenging difficulties (10 percent), that surveyed offline MSMEs reported their business faced when using digital tools. In contrast, the most frequently reported difficulty that surveyed online MSMEs reported their business faced was poor or no internet connectivity (39 percent), which also topped their list of most challenging difficulties (12 percent). At 18 percent, a lack of knowledge was the second-most frequently cited difficulty that surveyed online MSMEs reported their business faced in using digital tools. These findings suggest that stakeholders in the public, private, and development sectors could consider investments in activities like information sharing and capacity building to allow offline businesses to go online, and promote competitive and innovative markets for internet access to ensure sufficient connectivity so that these MSMEs can use the full range of digital tools.

Both surveyed online and offline MSMEs expressed high interest in using digital tools in their customer-facing work. Nearly three-quarters (74 percent) of online MSMEs and half (51 percent) of offline MSMEs were interested in learning more about using digital tools to market their businesses. Similarly, 68 percent of online and 48 percent of offline MSMEs were interested in learning more about using digital tools to find new customers, and similar percentages were interested in learning more about using digital tools to communicate with existing customers. This finding reinforces the importance of working directly with MSMEs to build their digital skills on topics that they have expressed interest in, like online customer engagement.

CLOSING REMARKS

With continued improvements in internet connectivity and digital literacy, Peru'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. Many surveyed MSMEs in Peru are already using digital tools to conduct basic business functions such as marketing to customers and communicating with suppliers, and they found these tools key to their businesses' survival during the COVID-19 crisis. Surveyed MSMEs reported using digital tools such as WhatsApp to maintain business operations during the COVID-19 pandemic and to support customer engagement and sales. Additionally, surveyed online and offline MSMEs also reported facing different sets of challenges: online MSMEs noted poor internet connectivity as a challenge, while offline MSMEs cited lack of knowledge. Nevertheless, surveyed MSMEs still reported a strong desire to learn more about digital tools for business purposes, such as using them to market their business and find new customers. This evidence shows that targeted solutions are required to 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 69 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 powerful digital tool by respondents. This finding points to the importance of promoting the use of simple and intuitive digital tools like WhatsApp among Peru's MSME community. MSMEs poised to grow and scale as the pandemic recedes will accelerate economic growth outcomes and support Peru 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 Peru's economy.

APPENDIX I: METHODOLOGY

OVERVIEW OF THE SURVEY DESIGN

Between May 27 and July 1, 2021, Ipsos conducted 997 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.[xlv]

The sample for the study was defined to include and be limited to Peru's micro (1 employee), small (2 to 9 employees) and medium (10 to 249 employees) business populations[xlvi] (summarized as "business size" in the text). Official statistics from Peru's National Institute of Statistics and Informatics' Annual Economic Survey (2018)[15] (EEA, for its abbreviation in Spanish) were used to estimate the proportion of businesses for each business size and to establish a target number of interviews for each business-size category.[xlvii] These statistics were also used to set targets by province and urbanicity (urban/rural) within Peru.

The targets for business size were set to approximate the distribution of the business population by business size across all of Peru, 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 Peru.

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 Peru, this minimum was achieved naturally and no oversample was required.

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

Target Interview Counts and Actual Interview Counts by Business Size, Urbanicity and Business-Owner Gender in Peru

BUSINESS SIZE			URBANICITY			BUSINESS-OWNER GENDER		
	TARGET	ACTUAL		TARGET	ACTUAL		MINIMUM REQUIRED	ACTUAL
Micro	500	498	Urban	750	751	Women	150	709
Small	300	299	Rural	250	246			
Medium	200	200						

xlv This is one in a series of 13 country reports about micro, small and medium-sized enterprises' (MSMEs) use of digital tools in North America, South America, South Asia, and Southeast Asia. These are accompanied by a global report, containing a complete description of the research and survey methodology.

xlvi 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.

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

- **PSUs:** Primary sampling units (PSUs) were defined as departments. These were stratified by five regions (Lima, North, Center, South, and Jungle), and of Peru's 24 departments, 18 departments were selected. One department – Metropolitan Lima – was selected with certainty (100 percent probability) due to its commercial importance. The remaining 17 PSUs were selected with random probability proportional to the business population within each department based on the 2018 Annual Economic Survey (EEA) referenced above.[16]
- **SSU1s:** Secondary sampling units (SSU1s) were defined as provinces. Of Peru's 196 provinces, 29 were selected as SSU1s with random probability proportional to the business population within each province based on EEA statistics.[17]
- **SSU2s:** SSU2s were defined as districts. Of the 435 districts within the selected SSU1s (there are 1,838 nationally), 32 were selected for this study. Lima (the capital city) was selected with certainty due to its commercial importance. Outside of Lima, districts were first stratified by region then by urbanicity (urban/suburban/rural).[xlviii] The remaining 31 districts were selected as SSU2s with random probability proportional to the business population within the district.[18]
- **SSU3s:** SSU3s were defined as cities and towns within districts. The estimated 2,427 cities and towns within the selected SSU2s[xlix] (there are 4,750 nationally) were then stratified by urbanicity based on the number of persons in each city/town using statistics from Peru's 2017 Population and Housing Census.[19] Sixty-one were selected as SSU3s based on the number of persons within cities/towns as detailed in the 2017 Census.[20]
- **SSU4s:** SSU4s were defined as commercial business areas within each SSU3. There were no available statistics for the total universe of SSU4s so they were selected using the combined knowledge of the research team and Ipsos' on-the-ground experience. This analysis took into account meeting target interview counts by urbanicity and business size. Where an SSU3 contained only one commercial business area, that served as the default SSU4. In densely populated business districts, a discretionary SSU4 would be selected to begin the random walk selection of individual businesses.
- **Individual businesses:** Within each SSU4, 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. Given the smaller incidence and number of businesses in rural SSU4s, enumerators' random walk count was fixed to every third business.

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 ultimately unable to reach the business, then that business was marked as a refusal. 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.

xlviii Urban was defined as Metropolitan Lima; suburban were places outside of Lima with more than 2,000 inhabitants; and rural were places with less than 2,000 inhabitants.

xlix The SSU2 total was an estimate as the business data and the PSUs selected for this study did not align 100 percent.

Interview Response and Refusal Rates in Peru[i]

	CAPI
Contacts	1,997
Completes	997
Refusals	724
Response rate[ii]	50%
Refusal rate[iii]	36%

Locations for Research in Peru

The target interview count and actual interview count by department are detailed below:

Target and Actual Interview Counts by Department

DEPARTMENT	TARGET	ACTUAL TOTAL
Áncash	10	10
Arequipa	30	30
Ayacucho	10	10
Cajamarca	60	70
Cusco	60	60
Huánuco	10	10
Ica	10	10
Junin	30	30
La Libertad	30	29
Lambayeque	50	50
Lima	40	40
Lima/Callao	500	499
Loreto	10	10
Piura	20	19
Puno	60	60
San Martin	20	20
Tacna	10	10
Ucayali	30	30
Total	**990**	**997**

Sample Weighting

Based on the fieldwork dispositions, Ipsos applied two weights to the raw survey data to account for regional distribution and the variation in non-response by urban and rural designations and by gender.

- **Design weight:** A weight by department was applied to adjust the sample to be proportionate to the number of persons within each department, as determined by the 2017 Census.[21] The 2017 Census was used as a proxy for the proportion of businesses in each department, as opposed to the 2018 National Institute of Statistics and Informatics' Annual Economic Survey used to create target interview counts by business size (as the latter source does not include informal businesses). Therefore, general population counts were more likely to mirror the total (formal and informal) business population.
- **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 department 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, department 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 Peru is 1.31.[iii]

Ipsos carefully considered a broad spectrum of weights to be applied. Two in particular – business-size and cross-national – were not applied. A business-size weight was not applied as the actual counts achieved through natural fallout closely matched the targets set using the business statistics referenced above.[22] A cross-national weight, to enable comparison across countries in this series of reports, was not applied

i Showing only the response and refusal rates presents a limited set of the outcomes possible. The full set of dispositions includes outcomes such as ineligible respondent (e.g. 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 percent.

ii Calculated using AAPOR Response Rate 3 methodology.

iii Calculated by dividing the number of refusals by the number of contacts.

iiii 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.

because there were no reliable data sources that could account for sampling differences across all countries in fieldwork timing and survey modes.

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 Peru.

COVID-19 Protocols

Extensive COVID-19 protocols were observed during CAPI interviews: only two to three 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-storey 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 were 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 regions listed above; all firms outside of these areas were not included in the sampling frame.

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 Peru's MSME structure. Although the sampling process captured variation in Peru'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 multistage 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 zero to three percent, 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 percent 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 Peru's MSME sector due to the limited geographic scope of the survey, among other considerations.

APPENDIX II: SUMMARY OF MSME AND RESPONDENT CHARACTERISTICS

CATEGORICAL VARIABLES		UNWEIGHTED N	UNWEIGHTED %	WEIGHTED %	UNWEIGHTED STDERROR	WEIGHTED STDERROR
Online Status	Offline	257	25.8	22.2	1.39	1.47
	Online	740	74.2	77.8	1.39	1.47
Gender Ownership	Men-owned	288	28.9	29.9	1.44	1.68
	Women-owned	709	71.1	70.1	1.44	1.68
Urbanicity	Rural	246	24.7	6.1	1.37	0.26
	Suburban	235	23.6	20.8	1.34	0.54
	Urban	516	51.8	73.1	1.58	0.44
Business Size	Micro	498	49.9	49.7	1.58	1.82
	Medium	200	20.1	25.4	1.27	1.61
	Small	299	30	24.9	1.45	1.54
Business Vertical	Agriculture and food production	56	5.6	4.8	0.73	0.7
	Hospitality	251	25.2	25.3	1.38	1.55
	Manufacturing and industry	212	21.3	21.2	1.3	1.49
	Professional services	59	5.9	5	0.75	0.76
	Retail and e-commerce	287	28.8	30.1	1.43	1.66
	Other	132	13.2	13.7	1.07	1.25
Region	Arequipa	30	3	4.6	0.54	0.02
	Ayacucho	10	1	0.9	0.32	0.02
	Cajamarca	70	7	1.9	0.81	0.14
	Cusco	60	6	2.4	0.75	0.03
	Huánuco	9	0.9	0.8	0.3	0.02
	Ica	10	1	1.5	0.32	0.04
	Junin	30	3	1.8	0.54	0.1
	La Libertad	30	3	3.4	0.54	0.01
	Lambayeque	50	5	2.4	0.69	0.04
	Lima	40	4	0.8	0.62	0.04
	Lima/Callao	499	50.1	71.5	1.58	0.17
	Loreto	10	1	1.2	0.32	0.03
	Piura	19	1.9	2	0.43	0.01
	Puno	60	6	0.9	0.75	0.01
	San Martin	20	2	0.4	0.44	0
	Tacna	10	1	1.4	0.32	0.12
	Ucayali	30	3	0.5	0.54	0
	Áncash	10	1	1.5	0.32	0.01

Owner Education	No formal education or less than primary education	1	0.1	0	0.1	0.04
	Primary education	51	5.1	4.1	0.7	0.69
	Secondary education	450	45.2	46.9	1.58	1.81
	University education or higher (degree)	266	26.7	24.8	1.4	1.53
	Vocational or technical education or training	213	21.4	22.4	1.3	1.52
	Don't know	10	1	1.2	0.32	0.42
	Refused	5	0.5	0.6	0.22	0.26
Owner Age	18-24	65	6.5	4.4	0.78	0.69
	25-34	240	24.1	22.3	1.36	1.47
	35-44	271	27.2	27.9	1.41	1.61
	45-54	266	26.7	28	1.4	1.63
	55-64	108	10.8	12.4	0.99	1.21
	65 or older	44	4.4	4.8	0.65	0.79
	Don't know	2	0.2	0.1	0.14	0.09
Respondent Education	No formal education or less than primary education	1	0.1	0	0.1	0.04
	Primary education	50	5	3.9	0.69	0.68
	Secondary education	459	46	47.7	1.58	1.81
	University education or higher (degree)	262	26.3	24.5	1.39	1.53
	Vocational or technical education or training	223	22.4	23.7	1.32	1.55
	Don't know	1	0.1	0	0.1	0.02
	Refused	1	0.1	0	0.1	0.04
Banking Status	Banked	368	36.9	40.6	1.53	1.77
	Unbanked	610	61.2	57.4	1.54	1.78
	Don't know	12	1.2	1.1	0.35	0.37
	Refused	7	0.7	0.9	0.26	0.36
Respondent Role	Owner	870	87.3	87.1	1.06	1.21
	Top-level manager, not an owner	127	12.7	12.9	1.06	1.21
Client Type	Both businesses and individuals	279	28	28	1.42	1.61
	Primarily individuals such as consumers or customers	697	69.9	69.7	1.45	1.65
	Primarily businesses	21	2.1	2.3	0.45	0.55

NUMERICAL VARIABLES	UNWEIGHTED N	UNWEIGHTED MEAN	WEIGHTED MEAN	UNWEIGHTED STANDARD DEVIATION	WEIGHTED STANDARD DEVIATION
Respondent Age[1]	997	40.6	41.7	12.5	12.5
Business Age[2]	991	7.2	7.8	8.7	9
Number of Owners[3]	997	1.3	1.3	1.3	1.1

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

2 Businesses in operation less than one year (135) coded as 0. Other possible response options: Don't know (4), Refused (2).

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

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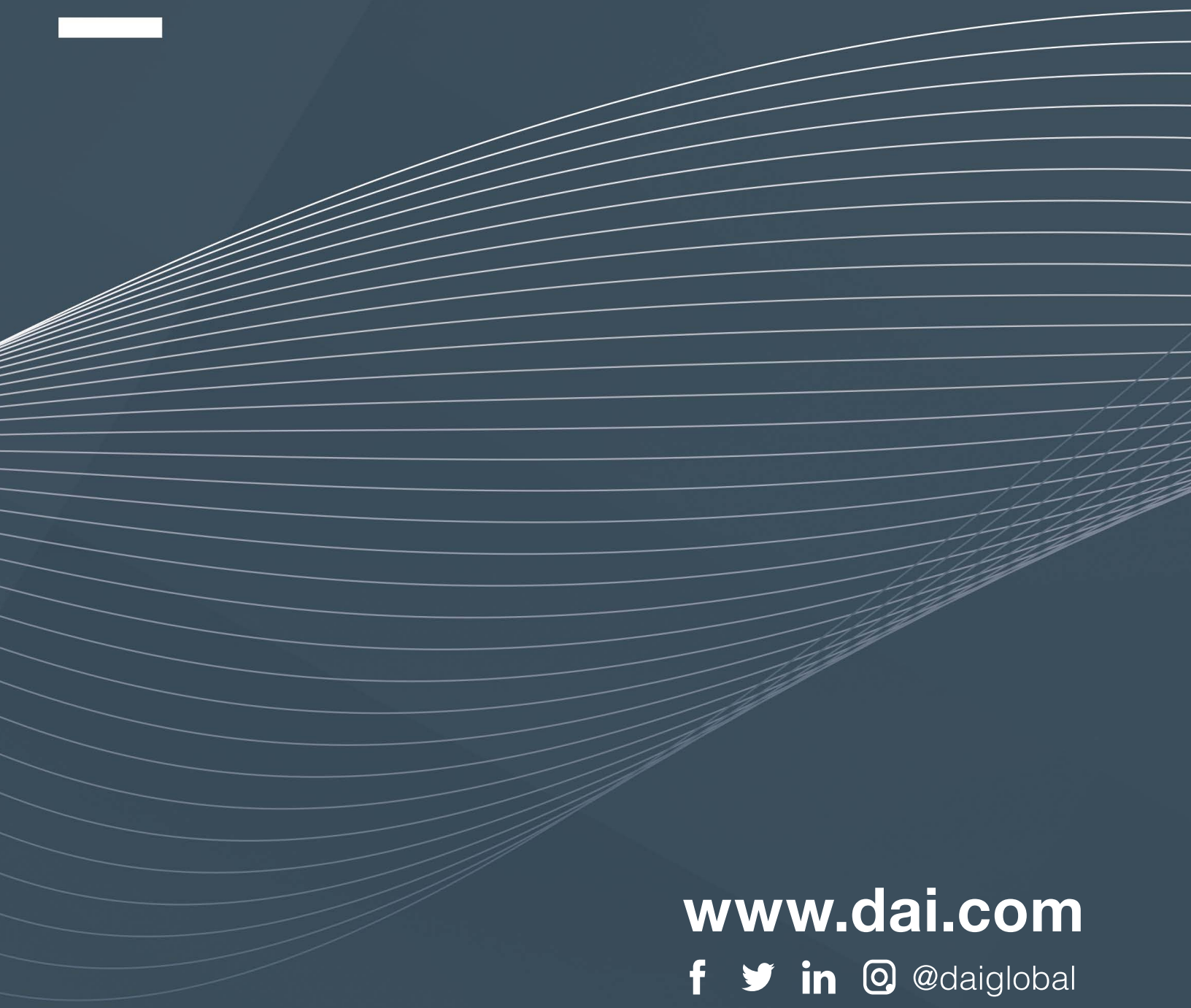

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