ASEAN Digital Generation Report: Pathway to ASEAN’s inclusive digital transformation and recovery

INSIGHT REPORT
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Executive summary and key insights

This year we surveyed 85,908 people from six ASEAN countries, predominantly from the youth (77%), which is defined as those aged between 16 and 35. Some 56% of respondents were female and 10% were business owners.

The inclusion of respondents over 35 in this year’s report is to explore the broader impact of the pandemic and to understand how different age groups are interacting and supporting each other to maximize the benefits of digital transformation for all.

1. The pandemic continues to cause severe impacts, both economically and mentally, particularly to MSMEs and women.

- Some 60% of people surveyed reported a decline in income and savings during the pandemic, with over 40% reporting a significant deterioration. In addition, 68% of surveyed MSME owners reported a decline in income.

- Those in the dining and tourism sector were the most severely impacted. Even workers in sectors such as trade and logistics, where most new jobs have reportedly been created, experienced a decline in incomes.

- Social, mental and physical outcomes also took a hit during the pandemic, with women, in particular, reporting substantial declines.
2. The majority of respondents expect a prolonged pandemic, which will leave behind a markedly different world.
   - They foresaw a more caring and more hygienic world, with greater improvements in health and healthcare, and with increased adoption of digital technologies post-pandemic.
   - However, they also reported worrying about future economic crises, pandemics, misinformation and environmental degradation.
   - Notably, while women are among the hardest hit by the pandemic, few expected an improvement in gender equality post-pandemic.

3. ASEAN citizens displayed clear signs of adaptation as many got used to working remotely during the pandemic. There was also a significant transfer of skills in conjunction with broadening digital inclusion.
   - Digitalization continued to accelerate. Across ASEAN, 64% of respondents have digitalized over half of their tasks; this number rises to 74% among MSME owners.
   - Although 80% of ASEAN youth (aged 16 to 35) found it difficult to work and study remotely, those who found it impossible decreased to 3% from 2020’s results of 7%. This may reflect the adaptation among youth and improvements in online working and studying conditions.
   - Amid the crisis, nearly one-third of respondents created a new business, while 12% created employment for other, and 25% started a new job. The wholesale and retail trade sector had the highest proportion of people starting new businesses (50%), while the logistics sector had the highest share of people finding new jobs (36%). This ties in well with the rapid growth of e-commerce in South-East Asia.
   - Significant intergenerational transfer of digital skills took place. Many respondents reported either learning from (40%) or teaching (36%) other a new digital skill (40%). Most “teachers” were youths (aged 16 to 35), highlighting the crucial role youth can play in building a digitally inclusive economy.

4. Respondents, especially MSME entrepreneurs, recognized the crucial role of digitalization for economic recovery. Those who were “more digitalized” tended to be more economically resilient during the pandemic.
   - Some 85% of respondents and 87% of MSME owners see digitalization as being either very important or important for economic recovery.
   - Respondents who reported greater levels of digitalization of their work and business reported lower levels of income decline. Similarly, business owners with an online presence were less likely to report declines in savings and income compared to those without one.
   - When asked about the benefits brought by digitalization, the majority of MSME owners chose saving time and automating, ease of access to information, and a greater selection of goods and services followed by the ability to generate an alternative income.

5. Digitalization has a “flywheel effect”. The majority of respondents wanted to further digitalize their life and this trend was even more pronounced in respondents that are MSME owners and those who were already relatively digitalized.
   - In general, 43% to 66% of respondents wanted to increase their level of digitalization in all surveyed aspects of life (e.g., work, entertainment, retail, etc.). For MSMEs owners, the interest was even higher, ranging from 51% to 76%.
   - The propensity to desire further digitalization rises dramatically to 70%-80% for those who were already using digital tools to complete most tasks. This could reflect the flywheel effect of digitalization where those who have already internalized a sufficient level of competency and experienced the benefits of digitalization are more eager to deepen their level of digitalization.

6. There is a high demand to further digitalize finance, especially among MSMEs.
   - Some 66% of respondents identified payments as a key area for further digitalization while 43% wanted to further digitalize the loans/financing process.
   - MSME owners, in particular, attached great importance to digitalizing finance, with 75% wanting more digital payments and over half (53%) of them wanted greater digitalization in lending.
   - Respondents also found the increased ease and efficiency of payments and transferring money to be the most significant benefit of digitalization to society.
7. Access to digital infrastructure and digital devices continue to be the largest barriers to further digital adoption.

- An expensive/poor internet connection and access to digital devices were the top two barriers to digital adoption.

- Respondents who have digitalized 25% or less of their tasks also pointed to the lack of digital skills as a key barrier. This further illustrates the aforementioned flywheel effect, where those with limited initial exposure to digital tools during the pandemic without appropriate digital skills did not experience the benefits of digitalization, hence not yet reaching the tipping point of getting the flywheel to start and consequently being less prone to further digital adoption.

- For those who have digitalized a higher percentage of their tasks, concerns shifted towards digital trust and security.

- These obstacles were consistent across all surveyed countries, calling for a multistakeholder and regional joint action to tackle the obstacles and unleash the full potential of ASEAN in the digital age.

- Corresponding to their perceptions on the obstacles, a large share of respondents saw actions to improve digital literacy, equip SME employees with digital skills, and improve the accessibility of both quality internet and digital devices as the most required for society to benefit more from digitalization.

- Better logistics and delivery services also emerged as one of the integral actions to help the economy digitalize. This shows a practical bridge between the digital world and the real economy, particularly from the perspective of digital trade and e-commerce.

8. There is a continuing strong need for the reskilling and upskilling of the ASEAN workforce.

- Technology use, creativity and innovation, self-discipline, and resilience and adaptability were considered to be the most important skills to succeed in the post-pandemic world.

- However, less than half of the ASEAN workforce consider themselves proficient in the skills they deemed important. For example, 70% of respondents who cited creativity and innovation as important said they were not proficient in it. This gap between perceived importance and proficiency illustrates the need for policies to help upskill the ASEAN workforce and close the skill gaps, especially for MSME.

- The importance and proficiency of skills can vary by age. For example, compared to the older respondents, ASEAN youths were less likely to consider the ability to use technology as important but were much more proficient in it compared to non-youths. This presents an opportunity for youths to step up in and transfer their knowledge on technology use.
Foreword

Amid a challenging pandemic, one silver lining within ASEAN has been its rapid digital transformation, which has served as a strong enabler for economic recovery.

This year’s annual survey is conducted in partnership between the World Economic Forum and Sea Ltd – the second edition since the onset of the COVID-19 pandemic. The survey expands the scope of the respondents beyond youths and finds similar broadening and deepening levels of digitalization across the board, validating this irreversible trend.

While there has been encouraging amplification of digitalization, the research also looks at some of the challenges and skill gaps faced by respondents.

The complexity and cross-cutting nature of challenges require joint efforts and collaboration across sectors and countries to address the gaps. Such partnerships will be crucial for everyone, particularly the vulnerable groups, including MSMEs and women, to reap the full benefits of digitalization.

With the valuable insights gathered from ASEAN’s digital generation, we hope the findings will inform policy choices so as to contribute towards a more sustainable, inclusive recovery for ASEAN as a whole.
Introduction

Since 2017, the World Economic Forum has partnered with Sea Ltd, a Singapore-based global consumer internet company, to survey and analyse the aspirations and perspectives of youths, aged between 16 and 35, in the ASEAN region. The objectives are to understand the views, priorities and concerns of the region’s young population to offer statistical insights to inform and shape relevant regional policy.

Like previous editions of the survey, this year’s edition continues to focus on the youth. However, given that today digital users include people of all ages, this year’s edition also gathers responses from people aged above 35, making the survey more representative of the larger ASEAN digital generation, to explore the broader impact of the pandemic as well as to understand how people of different age groups are interacting and supporting each other to maximize the benefits of digital transformation for all.

The survey continues to monitor the impact of the pandemic on respondents, exploring how the ongoing digitalization has benefited their life and society in the real economy, what stands in their way of further digitalization and maximization of such benefits, and how to tackle these obstacles. It also offers a window into people’s outlook for the world post pandemic.

The survey was conducted online through Sea, which operates an e-commerce platform Shopee, a digital entertainment business Garena, and a digital financial services arm, SeaMoney. Visitors to Shopee and Garena were invited to take part in the survey, with only responses of those aged above 16 included in the results. In total, we have surveyed 85,908 people from Indonesia, Malaysia, the Philippines, Singapore, Thailand and Viet Nam. Some 77% of respondents are youths aged between 16 and 35, 56% female and 10% business owners. The survey was held in July and August 2021.

The below report is structured into three main parts: Impact of the pandemic; The promise of digitalization; and Pathway to inclusive digital transformation and recovery in ASEAN.
1 Impact of the pandemic

1.1 The pandemic continues to have severe impacts, both economically and mentally, particularly on MSMEs and women

Some 63% of people surveyed reported a decline in savings and 62% reported a decline in income during the pandemic. Among those, more than 40% said it was a significant deterioration.

The most severely impacted were those in the dining and tourism sector, where 75% of respondents experienced income decline. Notably, people reported income decline even in sectors such as trade and logistics, where most new jobs have reportedly been created (as discussed below). Zooming in on respondents who are MSME owners, we found that 68% reported a decline in income.

Across ASEAN, 42% of respondents reported a deterioration in mental health (see Chart 1).

People also reported some weakening in social and physical health, though not as drastic as the impact on income and mental health.

The mental health impact reported was relatively constant for respondents across different levels of digitalization. Concerns about physical health, social uncertainties, decline in income, and savings may all take their toll on mental health of respondents, as well as potential digital fatigue from remote work and study, with the blurring of work and personal life boundaries. In the long run, addressing mental health issues would require strong efforts for economic recovery. In the meantime, specific policies should be developed to improve the mental health of the ASEAN workforce. One consideration

CHART 1 How have aspects of your life changed during the pandemic?

The share of respondents (%) is represented in the chart as follows:

- Increased/Improved significantly
- Increased/Improved somewhat
- No change
- Decreased/Worsened somewhat
- Decreased/Worsened significantly

The chart shows the distribution of responses for income, savings, physical, mental, and social aspects.
could be for ASEAN governments to guarantee universal access to mental health services, as called for by global youths in a recent survey by the World Economic Forum’s Global Shapers community, conducted on over 19,000 people in 187 countries. As women are dominant in the sectors that have been hardest hit by the pandemic, they also comprise the majority of respondents who reported suffering severe economical and mental impacts (see Chart 2).

CHART 2

How have aspects of your life changed during the pandemic?
To explore respondents’ outlook on the post-pandemic world, we asked them to share when they think the pandemic will end and what opportunities and challenges they anticipate. For the majority of respondents, the pandemic is here to stay for a long time. Some 69% said the pandemic would last beyond one year; 13% said the pandemic would never disappear completely (see Chart 3). In addition, many foresaw that if the

CHART 3 When will the pandemic end?
Better health and hygiene globally
A more caring society (more giving, helping others)
Greater use of digital tools and technologies
Stable economic growth
Better access to education opportunities
Helping small businesses more
Greater recognition of mental health issues
Building better social safety nets
Better tech governance (data security, handling misinformation)
More cooperation between countries
Becoming a climate-resilient and green economy
Building better infrastructure (roads, trains, 5G)
More equal opportunities between genders

For many of the respondents, the biggest opportunities to society in the post-pandemic world would be improvements in global health and hygiene, and a more caring society. Respondents from Thailand, Singapore and Malaysia, however, anticipated increased adoption of digital technologies as the top opportunity.

Unfortunately, only 5.2% saw potential improvement in gender equality. This is worrying given that other findings suggested that women were harder hit by the pandemic than men (see Chart 4).

Economic crises topped the chart in terms of the biggest worries in the post-pandemic world. Some 63% said they are most worried about an economic crisis, followed by another pandemic (49.9%), fake news (41.8%) and environmental degradation (26.1%; see Chart 5). Notably, environmental degradation concerns worried 43% of respondents in Viet Nam higher than the fake news risk.

The concerns on fake news are not unique to the ASEAN digital generation. The above-mentioned Global Shapers survey also identified misinformation and the spread of fake news as the biggest downsides to social media, either for regulators or for users. The Shapers called for specific actions to be taken by technology companies, governments, media entities, as well as the whole of society.3
As for ASEAN governments, accelerating the implementation of the ASEAN Framework for Digital Data Governance to enhance the interoperability of data policies in the region would be among possible policy responses. All the identified top risks are difficult to be contained within national borders, as the region has learned from the financial crisis of 2007 – 2008, the pandemic and many natural disasters. This calls for regional and multistakeholder joint action for an efficient response to their undesirable consequences.

### 1.3 Clear signs of adaptation, significant intergenerational transfer of skills in conjunction with broadening digital inclusion

This year, 80% of respondents aged 16 to 35 said they found working and studying remotely difficult, a significant increase on last year’s survey, where 60% confirmed struggling with working and studying remotely. However, across ASEAN, those who found it impossible to work or study remotely fell from 7% last year to 3% this year (see Chart 6). In Indonesia and Viet Nam, only 1% and 2% of respondents respectively found remote working/studying impossible. This can be interpreted as clear signs of adjustment and adaptation among youths as well as improvements in online working and studying conditions such as the availability and affordability of digital infrastructure.

The silver lining revealed from last year’s survey was also evident this year.

Digitalization continued to accelerate:

- We surveyed the level of digitalization by asking respondents about their use of a wide variety of digital tools, ranging from social media, online education, e-commerce, e-banking, to e-health. We also asked respondents to share what percentage of their tasks have been digitalized.

- Across ASEAN, 64% of respondents have digitalized 50% or more of their tasks as have 74% of respondents who are MSME owners. Interestingly, women (67%) digitalized their tasks more than men (61%). Even in rural areas, where digitalization of certain tasks such as those in agriculture would be less relevant, if not impossible, 49% of respondents reported having digitalized 50% or more of their tasks, as compared to 74% in big cities (see Chart 7).
New businesses and new jobs were created:
- Amid the health crisis, 27% of respondents created a new business, 12% created employment for others and 25% started a new job.
- Notably, MSME owners were the most active; 54% started a new business and 25% created new jobs during the pandemic. This confirms MSMEs as backbone of ASEAN economies (see Chart 8).

I experienced the following during the pandemic, by demographic
Wholesale and retail trade was the sector with the highest proportion of people starting new businesses (50%), while logistics is the sector with the highest percentage of people finding new jobs (36%; see Chart 9). We note that despite this development, respondents from these two sectors are among those who also reported a decline in income. This could potentially be because when people experienced a fall in income they turned to start new business in the wholesale and retail trade sector, probably through e-commerce. This is consistent with how MSME entrepreneurs put the ability to earn alternative income as one of the top benefits of digitalization (as discussed below).

I started my own business / I became my own boss

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share of Respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dining and Tourism</td>
<td>39</td>
</tr>
<tr>
<td>Education</td>
<td>23</td>
</tr>
<tr>
<td>Finance and Professional Services</td>
<td>27</td>
</tr>
<tr>
<td>Health</td>
<td>25</td>
</tr>
<tr>
<td>Industrial</td>
<td>26</td>
</tr>
<tr>
<td>Logistics</td>
<td>36</td>
</tr>
<tr>
<td>Others</td>
<td>34</td>
</tr>
<tr>
<td>Primary</td>
<td>29</td>
</tr>
<tr>
<td>Services</td>
<td>21</td>
</tr>
<tr>
<td>Tech and Telecomms</td>
<td>29</td>
</tr>
<tr>
<td>Trade</td>
<td>34</td>
</tr>
</tbody>
</table>

Significant intergenerational skills transfer:

- The survey results revealed that significant digital skills transfers took place during the pandemic. Some 40% of respondents reported having learned how to use digital tools from others, while 36% of all respondents taught others how to use digital tools.

- Interestingly, most “teachers” were youths (aged between 16 and 35), while most “learners” were in the 36-60 and 16-20 age groups (see Chart 10). This illustrated a pattern of intergenerational digital users helping each other out in an inevitable digitalization process. This further confirms the crucial role youths aged between 16 and 35 are playing for an inclusive digital economy in the region.

- It is also worth noting that as half of the learners and teachers are based in big cities, there is strong need to further accelerate digitalization in small towns and rural areas across ASEAN.
CHART 10 | Taught others digital tools vs learned digital tools from others

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Taught Others</th>
<th>Learned from Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASEAN sample average</td>
<td>36%</td>
<td>40%</td>
</tr>
<tr>
<td>MSME owner</td>
<td>36%</td>
<td>37%</td>
</tr>
<tr>
<td>51-60</td>
<td>28%</td>
<td>49%</td>
</tr>
<tr>
<td>41-50</td>
<td>33%</td>
<td>44%</td>
</tr>
<tr>
<td>36-40</td>
<td>34%</td>
<td>40%</td>
</tr>
<tr>
<td>31-35</td>
<td>36%</td>
<td>37%</td>
</tr>
<tr>
<td>21-30</td>
<td>38%</td>
<td>37%</td>
</tr>
<tr>
<td>16-20</td>
<td>38%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Share of respondents (%)
The promise of digitalization

2.1 Respondents who were “more digitalized” tended to be more economically resilient during the pandemic

Respondents who reported greater levels of digitalization of their work and business reported lower levels of income decline. Similarly, business owners with an online presence were more likely to report an increase in savings (24%) and income (28%) compared to those without one (18%; see Chart 11). This is consistent across education level, industry and other demographic factors.

CHART 11

How have your savings/income changed during the pandemic?
By level of work and business digitalization

### SAVINGS

<table>
<thead>
<tr>
<th>Share of respondents (%)</th>
<th>Business owner (online)</th>
<th>Business owner (offline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% - 25%</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>26% - 50%</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>51% - 75%</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>76% - 100%</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>100%</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>53%</td>
<td>42%</td>
</tr>
</tbody>
</table>

### INCOME

<table>
<thead>
<tr>
<th>Share of respondents (%)</th>
<th>Business owner (online)</th>
<th>Business owner (offline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% - 25%</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>26% - 50%</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>51% - 75%</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>76% - 100%</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>100%</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>39%</td>
<td>42%</td>
</tr>
</tbody>
</table>
The benefits of digitalization have been felt vividly in the real economy

2.2 The greatest benefits of digitalization

The ASEAN workforce identified the following three areas as the most significant benefits that digitalization brings to society: increased ease and efficiency of payments and transferring money; increased ease of communication and staying connected; and increased access to and sharing of information (see chart 12). When asked what benefits digitalization had brought to their businesses, the majority of MSME owners instead chose saving time and automating (61.9%), ease of access to information (60.2%), and access to a greater selection of goods and services (55.9%). This was followed closely by the ability to generate an alternative income (53.1%). These choices naturally reflected MSME priorities for business efficiency and optimization (see Chart 13).
Respondents, especially MSME owners, recognized the crucial role of digitalization in economic recovery

When asked to assess the role of digitalization in helping businesses and the economy get back on their feet, 85% said they see digitalization as either very important or important for economic recovery (see Chart 14). This perception is consistent across all surveyed countries. It further validates the appropriateness of the ASEAN Comprehensive Recovery Framework’s focus on accelerating inclusive digital transformation, among the five key strategies for the region’s recovery from the pandemic.

MSME owners (87%) are even more likely to see digitalization as critical for recovery (see Chart 15).
The majority of respondents wanted to further digitalize different aspects of their life

Beyond exploring the current level of digitalization among the respondents, we also asked about their expanded future use of a wide variety of digital tools and, specifically, how much more digitalized the work, study, or personal aspects of their life can be? We found that, on average, between 43% and 66% of respondents wanted to use the surveyed digital tools more (see Chart 16). For MSME owners, the interest was even higher – between 51% and 76%.

**Do you want to use digital tools more in these areas of your life?**

![Chart 16: Share of respondents (%)](chart.png)

- Work/Business: 63% Yes, I want more, 25% No, it is enough, 12% No, I want less
- Travel/Ride-hailing: 46% Yes, I want more, 32% No, it is enough, 22% No, I want less
- Social/Networking: 69% Yes, I want more, 28% No, it is enough, 11% No, I want less
- Retail/Groceries: 67% Yes, I want more, 30% No, it is enough, 12% No, I want less
- Payments: 56% Yes, I want more, 24% No, it is enough, 10% No, I want less
- Learning: 56% Yes, I want more, 27% No, it is enough, 17% No, I want less
- Finance/Loans: 50% Yes, I want more, 30% No, it is enough, 27% No, I want less
- Entertainment: 50% Yes, I want more, 28% No, it is enough, 13% No, I want less
- Dining/Ordering food: 46% Yes, I want more, 31% No, it is enough, 20% No, I want less
2.5 There is a high demand to further digitalize finance, especially among MSMEs

Some 66% of respondents identified payments as a key area for further digitalization. This corresponds nicely with the aforementioned finding that respondents considered the increased ease and efficiency of payments and transferring money to be the most significant benefit of digitalization to society.

Accelerating the implementation of regional policies, such as the ASEAN Payments Policy Framework for Cross Border Real-Time Retail Payments, can contribute significantly to responding to this call. In addition, ASEAN policy-makers when developing policies to promote finance digitalization may take into account the Shared Principles for an Inclusive Financial System, developed recently by the World Economic Forum’s EDISON Alliance. The Shared Principles aim to encourage a system approach to financial inclusion that brings together all participants as co-creators of a financial system for all.

2.6 Digitalization has a flywheel effect, with MSME owners and those who were already relatively digitalized wanting to digitalize even more

We found that between 51% and 72% of respondents who reported increased income wanted further digital adoption. Notably, 70%-80% of those who said they have already digitalized 50% or more of their tasks wanted to increase the level of digitalization even further (see Chart 18).

This could reflect the flywheel effect of digitalization where those who have already internalized sufficient level of competency and experienced the benefits are more eager to deepen their level of digitalization.

However, given the benefits of digitalization, why didn’t the less digitalized opt for more digital adoption?

The findings presented in the following section will reveal the relevant obstacles and some of the most necessary actions proposed by respondents for inclusive digital transformation and recovery in ASEAN.

CHART 17

Do you want to use digital tools more when dealing with finance and loans?

<table>
<thead>
<tr>
<th></th>
<th>Yes, I want more</th>
<th>No, it is enough</th>
<th>No, I want less</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASEAN sample average</td>
<td>43</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>MSME owner</td>
<td>53</td>
<td>26</td>
<td>21</td>
</tr>
</tbody>
</table>

Some 43% wanted to digitalize the loans/financing process. MSME owners in particular attached great importance to digitalizing finance, with three quarters of them wanting more digital payments, while over half (53%) wanted greater digitalization in lending (see Chart 17).
Do you want to use digital tools more in the following areas of your life?

**CHART 18**

<table>
<thead>
<tr>
<th>Area</th>
<th>Yes, I want more</th>
<th>No, it is enough</th>
<th>No, I want less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work / Business</td>
<td>26</td>
<td>28</td>
<td>44</td>
</tr>
<tr>
<td>Travel / Ridehailing</td>
<td>18</td>
<td>28</td>
<td>52</td>
</tr>
<tr>
<td>Social / Networking</td>
<td>32</td>
<td>34</td>
<td>32</td>
</tr>
<tr>
<td>Retail / Groceries</td>
<td>26</td>
<td>35</td>
<td>38</td>
</tr>
<tr>
<td>Payments</td>
<td>24</td>
<td>32</td>
<td>42</td>
</tr>
<tr>
<td>Learning</td>
<td>28</td>
<td>28</td>
<td>42</td>
</tr>
<tr>
<td>Finance / Loans</td>
<td>14</td>
<td>25</td>
<td>60</td>
</tr>
<tr>
<td>Entertainment</td>
<td>30</td>
<td>33</td>
<td>35</td>
</tr>
<tr>
<td>Dining / Ordering food</td>
<td>18</td>
<td>27</td>
<td>53</td>
</tr>
</tbody>
</table>

- **0% - 25%**
- **26% - 50%**
- **51% - 75%**
- **76% - 100%**
Pathway to inclusive digital transformation and recovery in ASEAN

3.1 Beyond the continuing issues regarding digital infrastructure and digital skills, trust and security concerns stand in the way of further digitalization for ASEAN’s digital generation

As in 2020, respondents continued to point to expensive or poor internet quality or digital devices as the top barriers to digital adoption (see Chart 19).

For respondents who have digitalized 25% or less of their tasks, lack of digital skills prevented, or perhaps demotivated, them from digitalizing more. The flywheel effect may also offer an explanation. In particular, limited initial exposure to digital tools during the pandemic is not a magic bullet for quality digital transformation. As the “less digitalized” users have most likely not yet experienced the benefits of digitalization, they have not yet reached the tipping point of getting the flywheel to start and consequently are less prone to further digital adoption. In order to make further digital adoption more appealing, they need long-term nurturing policies to experience meaningful adoption of digital tools, appreciate the tangible benefits of digitalization, and reap their fair share from an inclusive digital economy.

For those who have digitalized a higher percentage of their tasks, concerns shift from digital skills towards trust and security issues (see Chart 20).
The identified obstacles stand not only in the way of ASEAN’s digitalization acceleration but also in realizing the benefits of digitalization for individuals and society in the real economy. These perceptions are consistent across all surveyed countries. As no single stakeholder alone can address the identified obstacles efficiently, whole-of-society approach and regional joint action are required to tackle the obstacles and unleash the full potential of ASEAN in the digital age.

3.2 Better logistics and delivery services also emerged as one of the integral actions to help the economy digitalize

Beyond exploring the respondents’ perspectives on obstacles to ASEAN’s maximization of benefits from digital transformation, we also solicited their views on potential solutions.

A high percentage of respondents said actions to improve digital literacy, equip SME employees with digital skills, improving the coverage, affordability and quality of internet access and digital devices were required for society to benefit more from digitalization.

Most interestingly, better logistics and delivery services emerged as the third most needed action to help the economy digitalize. This indicates a practical view in bridging the digital world and the real economy, particularly from the perspective of digital trade and e-commerce, which are regarded as among the key drivers of ASEAN’s recovery (see Chart 21).

Indeed, even if the entire ASEAN population is digitalized, tech savvy and has the best internet access and digital devices, regional e-commerce will not be able to reach its full potential if logistics and delivery services remain subject to unjustifiable barriers.
**How best to help the economy digitalize**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Share of Respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving internet coverage, especially in rural areas</td>
<td>59</td>
</tr>
<tr>
<td>Raising digital literacy of local communities</td>
<td>49</td>
</tr>
<tr>
<td>Raising digital skills for SMEs and employees</td>
<td>48</td>
</tr>
<tr>
<td>Better logistics and delivery services as e-commerce demand rises</td>
<td>48</td>
</tr>
<tr>
<td>Digitalizing government services</td>
<td>46</td>
</tr>
<tr>
<td>Improve regulations on tech</td>
<td>45</td>
</tr>
<tr>
<td>Providing better social safety net for lower income workers</td>
<td>45</td>
</tr>
<tr>
<td>Providing financial support to help SMEs digitalize</td>
<td>44</td>
</tr>
<tr>
<td>Improving access to internet-enabled devices</td>
<td>44</td>
</tr>
<tr>
<td>Promoting interoperability of digital payments</td>
<td>42</td>
</tr>
<tr>
<td>Simplifying business regulation to encourage digitalisation</td>
<td>38</td>
</tr>
<tr>
<td>Simple technology design or user interface</td>
<td>38</td>
</tr>
<tr>
<td>Upskilling teachers with necessary digital skills</td>
<td>36</td>
</tr>
<tr>
<td>None of the above</td>
<td>4</td>
</tr>
</tbody>
</table>

*Share of respondents (%)*
There is a continuing strong need for reskilling and upskilling the ASEAN workforce, particularly to respond to MSME demand.

Technology use, creativity and innovation continue to top the chart as the most important skills for the post-pandemic world. This is consistent with the findings from previous survey editions as well as the perception of most respondent on the key role of digitalization in economic recovery.

Interestingly, after more than a year of working and studying remotely, respondents attached very high importance to self-discipline skills, which, in fact, were ranked as the most important skills by 49.8% of respondents from the Philippines. On the other hand, resilience and adaptability skills, while only ranked four in ASEAN average, stood out as the most important for 50.8% of respondents in Viet Nam (see Chart 22).
Among those who saw technology use as an important skill set, 50% of youths (aged between 16 and 35) were confident about their technology use skills, whereas only 35% of non-youth respondents regarded themselves as proficient on the skills. Though this indicates that even the youths themselves need to improve their technology-use proficiency, there is room for them to accelerate their skills transfer to the older generation of the ASEAN workforce.

The majority of respondents were also confident about their self-discipline skills, perhaps thanks to their experience during the pandemic. However, they were less confident about their creative and innovation skills and language skills, followed by data analysis, critical thinking, emotion communication, global mindset, management and leadership skills, with between 59% and 70% of respondents declaring “not proficient” skill levels (see Chart 23).

We also explored separately the perspective of MSME owners on the importance and proficiency of the same skills. They also attached the same high importance to the four aforementioned sets of skills and showed a slightly higher proficiency level on those skills compared to the average respondents. However, a high percentage of them (46%-64%) still did not consider themselves proficient in those skills.

What’s more, emotional communication, global mindset and management leadership are also among the important skills identified by quite a number of MSME owners. However, they were, as mentioned above, also the same set of skills the majority of respondents felt least confident about and more than 55% of the MSME owners themselves were still not proficient at (see Chart 24).

This raises a serious concern on talent shortages for MSMEs in the region unless there is significant effort invested to promptly reskill and upskill the ASEAN workforce.

The World Economic Forum’s Closing the Skills Gap Accelerator model could be one of the appropriate responses. The Accelerator is a platform that brings together multistakeholder actors across the public and private sectors to generate local insight, develop local needs-based action plans and drive their execution. It is part of the wider ecosystem, accelerating learning by operating as a globally integrated network, exploring multiple solutions at the same time and exchanging insights and experience through the Forum’s Global Network of Closing the Skills Gap Accelerators.

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**How proficient I am in the skills I consider important**

<table>
<thead>
<tr>
<th>Skill</th>
<th>Proficient</th>
<th>Not proficient</th>
<th>I do not have this skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology use</td>
<td>46</td>
<td>52</td>
<td>2</td>
</tr>
<tr>
<td>Creativity and innovation</td>
<td>26</td>
<td>70</td>
<td>4</td>
</tr>
<tr>
<td>Self-discipline</td>
<td>50</td>
<td>48</td>
<td>2</td>
</tr>
<tr>
<td>Resilience and adaptability</td>
<td>37</td>
<td>61</td>
<td>2</td>
</tr>
<tr>
<td>Emotional intelligence and communication</td>
<td>36</td>
<td>62</td>
<td>2</td>
</tr>
<tr>
<td>Language skills</td>
<td>23</td>
<td>70</td>
<td>7</td>
</tr>
<tr>
<td>Global citizenship / Global mindset</td>
<td>37</td>
<td>60</td>
<td>3</td>
</tr>
<tr>
<td>Analytical and critical thinking</td>
<td>34</td>
<td>63</td>
<td>3</td>
</tr>
<tr>
<td>Management and leadership</td>
<td>36</td>
<td>59</td>
<td>5</td>
</tr>
<tr>
<td>Technology design</td>
<td>23</td>
<td>58</td>
<td>20</td>
</tr>
<tr>
<td>Data analytics</td>
<td>29</td>
<td>65</td>
<td>7</td>
</tr>
<tr>
<td>Art and design</td>
<td>34</td>
<td>58</td>
<td>8</td>
</tr>
<tr>
<td>Maths and science</td>
<td>37</td>
<td>56</td>
<td>6</td>
</tr>
</tbody>
</table>

Share of respondents (%)
### 3.4 Most needed actions

In terms of addressing the skills gaps for ASEAN MSMEs, initiatives such as the ASEAN SME Academy, ASEAN action agenda on digitalization of ASEAN MSMEs, and the negotiation of a regional digital economy agreement, focusing not only on traditional e-commerce matters but also on empowering MSMEs and supporting MSMEs participation in digital trade, could be the appropriate response. The World Economic Forum’s Closing the Skills Gap Accelerator model could also offer much needed joint public-private efforts in this regard.

Accelerating the implementation of the ASEAN ICT Masterplan, the Masterplan on ASEAN Connectivity and ASEAN Digital Integration Framework Action Plan 2025 would be the right direction for addressing digital access issues. Another relevant initiative for ASEAN could be the World Economic Forum’s EDISON Alliance, which mobilizes multistakeholder collaboration to make technology more approachable, accessible and simpler for users to benefit from the digital economy.

Furthermore, regional trade facilitation arrangements have a special role to play in improving logistic and delivery services in the region. For example, ASEAN e-commerce businesses and consumers could feel significant improvement in their e-commerce experiences thanks to initiatives such as the expansion of the ASEAN Single Window (ASW) system to cover all international ports or points of entries in all ASEAN member states, the expansion of ASW, the system for electronic exchange of other trade-related documents, and similar initiatives.
Conclusion

The survey results offer rich statistical insights to inform policymakers of the views, aspirations as well as the needs of the ASEAN digital generation.

The pandemic continues to have a severe impact, both economically and mentally, particularly on MSMEs and women, who are also among the key drivers for ASEAN’s digital transformation.

While undergoing the uncertainties and disruptions caused by the pandemic, the ASEAN workforce has embraced digital technologies and well appreciates the value of digitalization. The benefits of digitalization have been felt vividly in the real economy, and ASEAN people are determined to maximize those benefits.

However, there are significant obstacles, ranging from digital infrastructure challenges and lack of digital skills to concerns about trust and security. The optimism that was prominent in previous editions of the report is still evident but there are also worries and concerns about the persistence of the pandemic and further uncertainties in the future.

The identified obstacles and risks are consistent across countries in the region and cannot be addressed efficiently by any country or stakeholder alone. Hence, regional and multistakeholder joint actions should be ramped up to ensure an inclusive, sustainable, and prosperous ASEAN digital economy. Policies to help overcome initial barriers to digital adoption, such as access and skills, are important to generate the flywheel effect, whereby users experience the benefits of technology and are keen to increase adoption further.
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Endnotes

1. https://www.globalshapers.org/
5. https://www.weforum.org/the-edison-alliance/home
6. https://www.weforum.org/projects/closing-the-skills-gap-accelerators#:~:text=Closing%20the%20Skills%20Gap%20Accelerators%20are%20currently%20established%20in%20eight%20by%20the%20end%20of%202021
7. https://www.weforum.org/projects/closing-the-skills-gap-accelerators#:~:text=Closing%20the%20Skills%20Gap%20Accelerators%20are%20currently%20established%20in%20eight%20by%20the%20end%20of%202021
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