Decoding the Malaysian digital DNA from smart to savvy
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Given the significant daily influence of digital innovations on Malaysian-based businesses, we conducted EY’s Asia-Pacific: Digital Nations 2016 survey. The survey attempts to decode the “who, what, why and where” of Malaysian digital engagement.

Malaysia’s rapid adoption of digital devices, by consumers, corporates and government is transforming consumption behaviors, business processes and modes of people engagement.

Benchmarked against regional peers, Malaysia’s digital DNA appear to mirror that of her Australasian and Singaporean peers. However, there is much scope for infrastructure upgrades to enhance Malaysia’s digital experience in view of Malaysia’s:

- Thirty-first position in World Economic Forum (WEF) Network Readiness Index¹
- Relatively nascent and modest growth of her e-commerce development of 10%-15%²

In response to the relentless pace of digital advances, businesses and government agencies must rise to the challenge of leading-edge digital transformation. Digital is no longer a “watch or wait-and-see” but a “catch-and-act-now” imperative. Organizations must be ever vigilant of new developments and be ever ready to reset their strategies.

In a world of digital disruption, many organizations are asking “What is my digital strategy?”

We think the better question is “Is your business strategy fit for a digital world?”

I hope you find this report and its insights a useful reference as you review your digital strategies.

About the research

This survey focused on Malaysians’ digital engagement, offering behavioral consumer insights to guide businesses and government in formulating their next digital strategies.

Who?

A total of 1,018 digitally active respondents who:
1. Have access to the internet or internet-connected mobile devices
2. Are aged 18 years to 69 years
3. Have resided in Malaysia for at least a year

Respondents were drawn from a trusted online panel; selected randomly with quotas employed on the completed interviews to ensure adequate coverage of consumers across age, location and gender. Where relevant, data is weighted to figures released by Department of Statistics Malaysia, official portal for gender, age and location to ensure it is representative of the population.

What?

- **Digital consumer**
  Identifying attitudes and behaviors in the digital world and highlighting key insights into how consumers use digital devices, and consume social media and entertainment, as well as their digital attitudes, experiences and expenditures.

- **Digital business**
  Examining how businesses can improve their clients’ digital experiences.

- **Digital government**
  Looking at what else the Malaysian government can do to advance Malaysia’s aspirations to be a digital nation.

How?

This report is a summation of findings with themes and highlights, considering the implications for Malaysia businesses. Where relevant, this report employed statistical analysis to search for gender and age differences in digital attitudes and behaviors. Where there are significant differences, we have provided analysis based on the following age demographics:

- Gen Y (aged 18 to 34 years)
- Gen X (aged 35 to 54 years) and
- Baby boomers (aged 55 years and above)

Visit digitalasiapacific.ey.com to further explore the research findings and to access survey results for other nations in the Asia-Pacific.

Total **1,018** respondents nationwide

Mode: **20 minutes** online questionnaire

Fieldwork: **10–26 May 2016**
Digital insights
Malaysia digital snapshots

Only 7%
Malaysians use a smart watch.

72%
Malaysians use portable laptops or notebooks.

91%
Malaysians have a smartphone.

Smartphones and tablets improve my communication with family and friends.

78%
Spotify
18%
YouTube
83%
New ways of accessing entertainment

Smartphones or tablets have negative impact on my sleep.

25%

If I typically look on the internet to research new products or services.

15%

I’ll rather conduct transactions over the internet than by phone or face-to-face.

83%

I agree that Malaysia digital economy is “less advanced” than leading nations.

57%

I worry about what personal information organizations can access.

78%

I think they spend too much on digital.

15%

New ways of accessing entertainment

83%

Average monthly digital expenses* (plans and subscriptions)

RM367

Average annual digital hardware expenses*

RM2,211

Malaysians use a smart watch.

Only 7%

Malaysian digital economy is “less advanced” than leading nations.

57%

I agree that Malaysia digital economy is “less advanced” than leading nations.

57%

I worry about what personal information organizations can access.

78%

RM2,211

I’d rather conduct transactions over the internet than by phone or face-to-face.

83%

15%

I’ll typically look on the internet to research new products or services.

83%

15%

National average

*National average

Decoding the Malaysian digital DNA: from smart to savvy

5
Digital insights
Decoding Malaysia's digital DNA

Malaysian consumers: from smart to savvy

- Daily online behavior is pro-research or knowledge for work purposes.
- Reading blogs is the most common form of online entertainment.
- More active social and networking online activities than online purchasing of goods and services.
- Streaming overtakes traditional music channels.

Call for higher cybersecurity

Perceived gaps in Malaysia's digital maturity, experience and affordability

Gen Y is the most digitally active.
Gen X, baby boomers are key spenders.
Baby boomers have low digital trust.

Desire for seamless experiences
Preference for customization/personalization
Smart research

Malaysia's digital economy
Decoding the Malaysian digital DNA: from smart to savvy
In responding to the relentless pace of digital advances, businesses and government agencies must meet the challenges of leading smart transformations to co-create a better digital experience.

Co-creating a better digital experience: business and government

- High-quality experience
  - Responsive
  - Seamless integration
  - Customization

- Quality and affordability
  - Internet speed
  - Network quality

- How will you operate in the digital market?
- Are you digitizing both front- and back-end operations?
- Do you have an agile innovation model?

In Malaysia’s Budget 2017, there are initiatives to upgrade Malaysia’s broadband infrastructure in accelerating the growth of Malaysia’s digital economy.
Malaysians are rapidly embracing the digital economy. Their use of, attitude to and experience with digital devices are similar to those of advanced country peers.

Being highly connected to the digital environment, a significant proportion of Malaysians expect improved internet speed quality, more affordable digital service connections and higher levels of cybersecurity.

Given Malaysia’s diversified, vibrant economy and youthful population, organizations that get their digital operating models right will have significant opportunities. We see a strong upside in businesses undertaking digital transformation projects and participating in government delivery of more efficient and affordable digital infrastructure.

In Budget 2017, the government announced initiatives to upgrade the speed of Malaysia’s broadband infrastructure at cost-competitive prices.

<table>
<thead>
<tr>
<th>Digitally active nation</th>
</tr>
</thead>
</table>
| Malaysians have kept pace with digital device adoption, with smartphone usage at 91% and daily internet usage at 87%.

Eight out of 10 Malaysians:
- Participate in social networks on daily basis
- Conduct online research before purchasing goods and services.

<table>
<thead>
<tr>
<th>Perceived gaps in Malaysia’s digital maturity, experience and affordability</th>
</tr>
</thead>
</table>
| More than half of Malaysians believe that her digital economy is a work-in-progress:
  - Fifty-seven percent believe Malaysia’s digital economy is ‘less advanced’ than leading nations
  - Fifty-three percent are dissatisfied with internet speed
  - Fifty-one percent think the cost of accessing data — whether through fixed or mobile internet or while roaming — is unreasonable.

<table>
<thead>
<tr>
<th>Call for higher cybersecurity</th>
</tr>
</thead>
</table>
| Malaysians almost unanimously (98%) call for organizations to provide safe and secure online transactions.

Most Malaysians:
- Are concerned about protecting the privacy of their digital behaviors (78%)
- Want organizations to disclose how they use online information (83%)
- Seek regulatory enforcement on customer information (69%).
Market callouts: digital attitudes of the Malaysian consumers

When engaging with Gen Y, Gen X and baby boomers, businesses and government need to understand the digital attitudes and needs of each segment.

Gen Y is the most digitally active.
- Spend 15 hours per day on digital devices versus Gen X (12 hours) and baby boomers (10 hours)
- Love to find new apps or websites (65%) versus Gen X (52%) and baby boomers (43%)
- Regularly use their tablet and smartphone in bed (61%) versus Gen X (33%) and baby boomers (10%)
- Prefer to shop online (38%) versus Gen X (27%) and baby boomers (15%)

But Gen X and baby boomers are main spenders in view of their higher incomes.
- Gen X and baby boomers spend 1.6 times more than Gen Y on monthly digital expenses, i.e., RM454 and RM452 versus Gen Y at RM279.
- Gen X (11%) appear more likely to adopt smart watches than Gen Y (6%) and baby boomers (2%)

Although all segments are worried about data privacy, baby boomers are particularly hesitant about online payments.
- Only 16% of baby boomers have made a payment by tapping mobile phones versus Gen Y (49%) and Gen X (40%).
- Only 23% of baby boomers are receptive to purchasing over the internet versus Gen X (34%) and Gen Y (46%).

Meeting the needs of Malaysian segments by age groups

Smart research
- All age groups conduct pre-purchase online research (Gen Y: 85%; Gen X: 83%; baby boomers: 78%).

Seamless experience
- All three age groups expect a seamless experience regardless of whether they are online or in store (Gen Y: 91%, Gen X: 93%, baby boomers: 90%).

Customization/personalization
- More than 70% of Gen Y, X and baby boomers prefer digital advertising and promotion tailored to their interests or characteristics (Gen Y: 82%, Gen X: 80%; Baby Boomers: 71%).
Market callouts: digital experiences

With the rampant use of digital devices, particularly smartphones and laptops or notebooks, Malaysian consumers are rapidly moving from smart to savvy.

As digitalization continues to transform the consumer experience, a high-quality digital experience is vital to attract and sustain consumer interest. Smartphones or tablets have become a key multitasking tool for improving communication and delivering efficiencies in all parts of life, from personal tasks, to work processes, through to social needs. However, consumers also report emerging areas of concern, including the impact of digital devices on sleep patterns.

Consumers are increasingly demanding better response speeds, easy navigation and real-time updates. This is driving organizations to improve their digital platforms, from online communications through to online purchase facilities and intended outcomes.

Winning the “hearts and minds” of consumers will require creating a seamless digital experience across all channels. This means copiloting the journey with the customer – the all-empowered and evolving consumer.

**Q: What is a high-quality digital experience?**

- Prefer transactions over the internet than by phone or face-to-face: 38%
- Easy-to-navigate website: 73%
- Same experience online versus in store: 46%
- Responsive to online queries: 69%
- Seamless information integration: 54%
- Real time or live updates: 59%

With empowered consumers wanting a seamless, end-to-end experience, organizations need to have robust digital technology platforms and processes to optimize customer engagement.
Survey results in full
Digital consumers – Digital device ownership and usage
Digital device usage

Smartphones, the key digital connector

Most (91%) Malaysian adults use a smartphone, indicating how connected Malaysians are to the digital environment.

The Android operating system dominates Malaysia’s smartphone devices – adopted by 8 in 10 smartphones.

Portable laptops or notebooks (72%) and personal computers or desktops (60%) command significant usage as well.

Tablets and smart TVs are significantly less popular, owned by just one-third (33%) and one-fifth (19%) of Malaysians, respectively.

Device usage

<table>
<thead>
<tr>
<th>Device</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A smartphone</td>
<td>91%</td>
</tr>
<tr>
<td>Portable laptop or notebook</td>
<td>72%</td>
</tr>
<tr>
<td>Personal or desktop computer</td>
<td>60%</td>
</tr>
<tr>
<td>Tablet, e-reader or mini tablet</td>
<td>33%</td>
</tr>
<tr>
<td>Smart TV with internet access</td>
<td>19%</td>
</tr>
</tbody>
</table>

Base: Malaysia (n=1,018)

Q. Which of the following devices do you use whether at work or personal use?

Device platforms

<table>
<thead>
<tr>
<th>Device</th>
<th>Apple</th>
<th>Android</th>
<th>Windows</th>
<th>Other</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portable laptop or notebook</td>
<td>4%</td>
<td>87%</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Tablet, e-reader or mini tablet</td>
<td>36%</td>
<td>53%</td>
<td>7%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Smartphone</td>
<td>15%</td>
<td>80%</td>
<td>3%</td>
<td>2%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Base: Use any device – Malaysia (n=1,018)

Q. Thinking about each of the following mobile devices that you use, what type of operating platform are they?
Digital device appeal and usefulness

Healthy appetite toward other smart devices

Demonstrating their capacity to be early adopters, 6 in 10 (63%) Malaysians find the latest health devices that digitally monitor internal organs “very or fairly” appealing. This is true of all age groups, suggesting the population is highly receptive to applying digital technology to monitor health.

Also, 6 in 10 (63%) Malaysians who are not using a smart watch find these devices “very or fairly” appealing. This suggests that, although the current penetration of smart watches is low (7%), as wearables become more affordable, the smart watch market may deliver high growth in Malaysia over the next few years.

High receptiveness to new smart devices

Malaysians do not see new devices as “fads”. The majority of new device users find their device either very or fairly useful, with action cameras (at 74%) being the only device falling below 80%.

The challenge for wearable fitness devices and smart watches will be differentiating the two offerings given the increasing overlap in their features.

Appeal of digital devices

<table>
<thead>
<tr>
<th>Digital Device</th>
<th>Very appealing</th>
<th>Fairly appealing</th>
<th>A little appealing</th>
<th>Not at all appealing</th>
<th>Don’t know</th>
<th>NET: very or fairly appealing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health digital devices that monitor internal organs</td>
<td>29%</td>
<td>34%</td>
<td>22%</td>
<td>10%</td>
<td>4%</td>
<td>63%</td>
</tr>
<tr>
<td>Smart watch</td>
<td>25%</td>
<td>38%</td>
<td>20%</td>
<td>14%</td>
<td>4%</td>
<td>63%</td>
</tr>
<tr>
<td>3D printer</td>
<td>24%</td>
<td>30%</td>
<td>26%</td>
<td>13%</td>
<td>6%</td>
<td>54%</td>
</tr>
<tr>
<td>Smart glasses</td>
<td>22%</td>
<td>32%</td>
<td>23%</td>
<td>17%</td>
<td>6%</td>
<td>54%</td>
</tr>
<tr>
<td>Wearable fitness device</td>
<td>20%</td>
<td>32%</td>
<td>28%</td>
<td>16%</td>
<td>4%</td>
<td>52%</td>
</tr>
<tr>
<td>Action camera in a head mount or harness</td>
<td>16%</td>
<td>26%</td>
<td>30%</td>
<td>23%</td>
<td>6%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Q. How appealing would each of the following digital devices be to you?

Usefulness of wearable devices

<table>
<thead>
<tr>
<th>Wearable Device</th>
<th>Very useful</th>
<th>Fairly useful</th>
<th>A little useful</th>
<th>Not at all useful</th>
<th>Don’t know</th>
<th>NET: very or fairly useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wearable fitness device</td>
<td>43%</td>
<td>40%</td>
<td>16%</td>
<td>1%</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td>Smart watch</td>
<td>42%</td>
<td>43%</td>
<td>14%</td>
<td>1%</td>
<td>85%</td>
<td></td>
</tr>
<tr>
<td>3D printer</td>
<td>42%</td>
<td>46%</td>
<td>12%</td>
<td>88%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action camera in a head mount or harness</td>
<td>30%</td>
<td>44%</td>
<td>23%</td>
<td>3%</td>
<td>74%</td>
<td></td>
</tr>
</tbody>
</table>

Q. How useful are the following wearable devices to you?
Callout: new smart devices appeal

1 in 10

Gen X uses a smart watch, significantly higher than other age groups.

3 in 10

of baby boomers use a smart TV with internet access, higher than their younger counterparts (Gen Y: 14%, Gen X: 22%, baby boomers: 32%).

1 in 4

Gen Y currently not using a wearable fitness device find them very appealing, compared with just 14% of Gen X and 16% of baby boomers.

3 in 10

Gen Y currently not using smart glasses find them very appealing, well above Gen X (16%) and baby boomers (12%).

16% 29% 14% 16% 12%

Gen X (35–54 years) are more likely to take up/adopt smart watches (11%) than Gen Y (18–34 years) and baby boomers (more than 55 years) at 6% and 2%, respectively.

Baby boomers are the most likely age group to own smart TVs.
### Online activities across different devices

<table>
<thead>
<tr>
<th>Activity</th>
<th>Device Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Devices used for research/knowledge</strong></td>
<td></td>
</tr>
<tr>
<td>Education (221)</td>
<td><img src="image1.png" alt="Graph" /></td>
</tr>
<tr>
<td>Finding lifestyle information (218)</td>
<td><img src="image2.png" alt="Graph" /></td>
</tr>
<tr>
<td>Finding places or using online maps (220)</td>
<td><img src="image3.png" alt="Graph" /></td>
</tr>
<tr>
<td>News and sport updates (221)</td>
<td><img src="image4.png" alt="Graph" /></td>
</tr>
<tr>
<td>Researching products and services (223)</td>
<td><img src="image5.png" alt="Graph" /></td>
</tr>
<tr>
<td>Work or business purposes (261)</td>
<td><img src="image6.png" alt="Graph" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>Device Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devices used for entertainment and recreation</td>
<td></td>
</tr>
<tr>
<td>Finding things to do/buying tickets (220)</td>
<td><img src="image7.png" alt="Graph" /></td>
</tr>
<tr>
<td>Gambling (88)</td>
<td><img src="image8.png" alt="Graph" /></td>
</tr>
<tr>
<td>Music, podcasts, TV or film (219)</td>
<td><img src="image9.png" alt="Graph" /></td>
</tr>
<tr>
<td>Searching for information on restaurants/bars (220)</td>
<td><img src="image10.png" alt="Graph" /></td>
</tr>
<tr>
<td>Reading blogs or online communities (220)</td>
<td><img src="image11.png" alt="Graph" /></td>
</tr>
</tbody>
</table>

Laptops and smartphones are pervasive across research and recreation activities.

Base: Do the activity online at least once a year, sample sizes as shown.

Q. Thinking about the activities you do online, please tell us what devices you use when you undertake each of the following.
Online activities across different devices

**Devices used for goods and services consumption**

- **Banking and finance (221)**
  - Desktop: 40%
  - Laptop: 39%
  - Tablet: 8%
  - Smartphone: 14%

- **Buying beauty or health products (220)**
  - Desktop: 75%
  - Laptop: 47%
  - Tablet: 26%
  - Smartphone: 25%

- **Buying clothes (119)**
  - Desktop: 33%
  - Laptop: 11%
  - Tablet: 14%
  - Smartphone: 30%

- **Buying other online retail products (219)**
  - Desktop: 52%
  - Laptop: 48%
  - Tablet: 30%
  - Smartphone: 31%

- **Downloading e-books (218)**
  - Desktop: 36%
  - Laptop: 43%
  - Tablet: 22%
  - Smartphone: 31%

- **Grocery shopping (219)**
  - Desktop: 38%
  - Laptop: 43%
  - Tablet: 13%
  - Smartphone: 23%

- **Purchasing meals (e.g., takeaway/delivery) (218)**
  - Desktop: 26%
  - Laptop: 39%
  - Tablet: 15%
  - Smartphone: 38%

**Devices used for social/networking**

- **Online messaging and calling (219)**
  - Desktop: 17%
  - Laptop: 44%
  - Tablet: 15%
  - Smartphone: 31%

- **Reading personal emails (218)**
  - Desktop: 85%
  - Laptop: 50%
  - Tablet: 12%
  - Smartphone: 67%

- **Social media and networks (220)**
  - Desktop: 31%
  - Laptop: 44%
  - Tablet: 15%
  - Smartphone: 62%

**Aggregated online activities by devices**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Desktop</th>
<th>Laptop</th>
<th>Tablet</th>
<th>Smartphone</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social and networking</strong></td>
<td>156</td>
<td>81</td>
<td>61</td>
<td>25</td>
</tr>
<tr>
<td><strong>Goods and services consumption</strong></td>
<td>60</td>
<td>96</td>
<td>72</td>
<td>26</td>
</tr>
<tr>
<td><strong>Entertainment and recreation</strong></td>
<td>83</td>
<td>99</td>
<td>62</td>
<td>27</td>
</tr>
<tr>
<td><strong>Research and knowledge</strong></td>
<td>108</td>
<td>113</td>
<td>82</td>
<td>32</td>
</tr>
</tbody>
</table>

Note: base for aggregated average number of users varied according to activities.

Base: Do the activity online at least once a year, sample sizes as shown.

Q. Thinking about the activities you do online, please tell us what devices you use when you undertake each of the following.

Laptops and desktops are the preferred means of purchasing goods and services online; smartphones are more likely to be used for social/networking activities.
Digital consumers – Digital activities: a day in the life of digital Malaysia
Using the internet largely for research purposes with respect to work/business

Six out of 10 Malaysians reported that they access the internet for research/knowledge for work or business purposes on a daily basis. It indicates that the Malaysian workforce has embraced the digital knowledge base and reflects an economy that has propensity to increase its provision and consumption of digital services.

Reading blogs – the most common form of online entertainment

Despite the publicity of streaming entertainment services such as Netflix and Spotify, Malaysians are very engaged in reading blogs or online communities – 8 out of 10 (79%) reported they access blogs/online communities at least once per month.
More active social and networking online activities than online purchasing of goods and services

Online purchase of goods and services yet to take off

Although Malaysia has a digitally engaged population, a small proportion of Malaysians conduct online shopping on a daily basis.

Yet, social/networking activities are carried out with an exceptionally high frequency: more than 80% of Malaysians use social/networking media every day.

The underlying issue may be that consumers do not trust the payment services involved in online purchases.

<table>
<thead>
<tr>
<th>Frequency of online activities: goods and services purchasing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At least daily</strong></td>
</tr>
<tr>
<td>Banking and finance</td>
</tr>
<tr>
<td>Purchase meals</td>
</tr>
<tr>
<td>Grocery shopping</td>
</tr>
<tr>
<td>Buy other online retail products</td>
</tr>
<tr>
<td>Buy beauty or health products</td>
</tr>
<tr>
<td>Buy clothes</td>
</tr>
<tr>
<td>Downloading e-books</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency of online activities: social and networking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At least daily</strong></td>
</tr>
<tr>
<td>Reading personal emails</td>
</tr>
<tr>
<td>Social media/networks</td>
</tr>
<tr>
<td>Online messaging and calling</td>
</tr>
</tbody>
</table>

Base: Malaysia (n=1,018)

Q. How often do you use the internet for each of the following activities (whether accessed via a mobile device, app, a desktop computer or smart TV)?
Females are more likely to buy beauty or health products online at least once a month
(female: 43%, male: 28%)

Males are more likely to buy other online retail products, such as appliances/devices/furniture online at least once a month
(male: 43%, female: 30%)

Both Gen Y and Gen X are the key age segments to buy clothes online at least once a month
(Gen Y: 41% and Gen X: 32%)

The propensity of buying clothes online at least once a month decreases with age.
Highly engaged with digital devices

The majority of Malaysians (89%) are engaged with their digital devices once awake and before sleep. On average*, Malaysians spend almost 14 hours per day on digital devices, including their mobile phone (4.2 hours), laptop (3.2 hours), desktop (3.2 hours) and watching TV (2.4 hours).

Smartphones/tablets top indoor and outdoor usage

Whether indoors or outdoors, Malaysians are highly engaged with their smartphones and tablets.

Malaysians regularly engage with their smartphones/tablets while in bed and watching TV.

They also regularly use smartphones/tablets while on public transport. Half (50%) of Malaysians occasionally use their smartphones/tablets when driving, but just 5% do so on a regular basis.

---

**Average time spent on devices over a day**

- Using a mobile phone: 4.2 hours
- Using a laptop or notebook computer: 3.2 hours
- Using a personal or desktop computer: 2.4 hours
- Watching TV/movies via traditional TV (no internet connection): 2.4 hours
- Using a tablet, e-reader or mini tablet: 0.9 hours
- Watching TV/movies via a TV with an internet connection: 0.5 hours
- Playing games on a game console: 0.2 hours

Total average* time spent on devices per day: **13.7 hours**

---

**Locations smartphones/tablets used**

<table>
<thead>
<tr>
<th>Indoor</th>
<th>Outdoor</th>
</tr>
</thead>
<tbody>
<tr>
<td>In bed</td>
<td>Public transport</td>
</tr>
<tr>
<td>Watching TV</td>
<td>Outside</td>
</tr>
<tr>
<td>Eating at home</td>
<td>Eating out</td>
</tr>
<tr>
<td>Bathroom/toilet</td>
<td>Shopping centre</td>
</tr>
</tbody>
</table>

Base: Malaysia (n=1,018)

Q. Yesterday, how much time did you spend doing each of the following activities?
Q. Where and when do you use a smartphone or tablet? (includes respondents who replied regularly and occasionally)
Callout: a day in the digital life of Gen Y Malaysians

15 hours and 30 minutes is the average time Gen Y spends on digital devices in a day.

Gen Y is the most likely age group to spend time on their mobile phone (5 hours 12 minutes) and laptop (3 hours and 42 minutes).

3 hours and 42 minutes

5 hours and 12 minutes

61% of Gen Y regularly uses their tablet or smartphone in bed, significantly more than Gen X (33%) and baby boomers (10%).

Gen Y typically spend more time connected to their devices than Gen X and baby boomers (12 hours 42 minutes and 10 hours and 6 minutes, respectively).

Gen Y is highly connected to their mobile phones and laptops.

Gen Y has a habit of using smartphones while in bed.
Nontraditional activities prevalent over mobile phones

Prevalence of non-traditional phone activities

Malaysians spend over two-thirds of their time on non-traditional activities such as web surfing, games, watching or listening to media, music and accessing social media.

Accessing social media is the main activity on both smartphones and other types of mobile phones (21% and 20% respectively), indicating that most mobile phones have added internet-enabled functions to meet consumer needs.

Despite the added messaging functionality of many social media platforms, texting is still a frequent activity, making up nearly one fifth (19% on smartphones and 18% on other types of mobile phones) of activity.

Base: Malaysia — smartphone users (n=934), other type of mobile phone users (n=188)

Q. Approximately, how much of the total time that you used your mobile phone yesterday was to access/do each of the following activities

*Note: Traditional activities include texting and calling only. All remaining activities/functions are deemed as “nontraditional” activities.
Gen Y spent 73% of their mobile phone time doing nontraditional tasks, with 22% of their phone time being spent on social media*. Females are more likely to spend time on their phone texting. Social media was the key mobile phone activity for Gen Ys. Top two activities for females on their phones are texting and using social media (both 22%).

*Comprises “social media,” “web surfing,” “performing tasks via apps,” “games,” “watching/listening to videos/music” and “other activities”.

Decoding the Malaysian digital DNA: from smart to savvy
Digital consumers – Social media and entertainment consumption
Most Malaysians use at least one social media platform. Of these, Facebook (96%) and WhatsApp (96%) are their key platforms.

WhatsApp has grown more popular, with 79% of Malaysians using it more frequently than 12 months ago (compared with 65% for Facebook).

Google+ users are using the platform largely for learning (50%), entertainment (46%) and research (39%). It is also used for communications with family and friends (18%) or colleagues (19%).

### Social media usage

<table>
<thead>
<tr>
<th>Platform</th>
<th>Using more frequently than 12 months ago</th>
<th>Currently using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>65%</td>
<td>96%</td>
</tr>
<tr>
<td>WhatsApp</td>
<td>79%</td>
<td>96%</td>
</tr>
<tr>
<td>Google+</td>
<td>37%</td>
<td>82%</td>
</tr>
<tr>
<td>Instagram</td>
<td>23%</td>
<td>62%</td>
</tr>
<tr>
<td>WeChat</td>
<td>26%</td>
<td>61%</td>
</tr>
<tr>
<td>Twitter</td>
<td>12%</td>
<td>52%</td>
</tr>
<tr>
<td>Linkedin</td>
<td>6%</td>
<td>41%</td>
</tr>
<tr>
<td>Pinterest</td>
<td>5%</td>
<td>33%</td>
</tr>
<tr>
<td>Tumblr</td>
<td>3%</td>
<td>22%</td>
</tr>
<tr>
<td>Viber</td>
<td>3%</td>
<td>22%</td>
</tr>
<tr>
<td>Flickr</td>
<td>1%</td>
<td>20%</td>
</tr>
<tr>
<td>Snapchat</td>
<td>3%</td>
<td>19%</td>
</tr>
<tr>
<td>MySpace</td>
<td>1%</td>
<td>12%</td>
</tr>
<tr>
<td>Meetup</td>
<td>1%</td>
<td>12%</td>
</tr>
<tr>
<td>Tinder</td>
<td>1%</td>
<td>11%</td>
</tr>
<tr>
<td>Periscope</td>
<td>0%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Base: Malaysia (n=1,018)

Q. How would you describe your awareness and usage of the following social media networks compared to 12 months ago?
Piracy a prevalent challenge

The majority of Malaysians say they download or stream unauthorized entertainment files. Piracy is particularly common in music, movies and TV shows.

Changing consumer attitudes toward piracy may require more effective regulatory communication and enforcement.

<table>
<thead>
<tr>
<th>Downloading/streaming unauthorized files</th>
<th>Currently downloading/streaming unauthorized files</th>
<th>Stopped using</th>
<th>Wasn't using 12 months ago/never used these programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music</td>
<td>75%</td>
<td>4%</td>
<td>21%</td>
</tr>
<tr>
<td>Movies</td>
<td>71%</td>
<td>6%</td>
<td>23%</td>
</tr>
<tr>
<td>TV shows</td>
<td>64%</td>
<td>6%</td>
<td>30%</td>
</tr>
<tr>
<td>Games</td>
<td>58%</td>
<td>6%</td>
<td>36%</td>
</tr>
<tr>
<td>Published e-books</td>
<td>43%</td>
<td>7%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Base: Malaysia (n=1,018)

Q. How would you describe your usage of sites or programs to download/stream unauthorized content compared with your usage 12 months ago?
Streaming entertainment

**Music streaming overtakes traditional music channels**

The majority of Malaysians (89%) use free music streaming services, including online radio (52%), watching YouTube (83%) and subscription services (18%) – such as Spotify – to access music.

Despite the popularity of music streaming, traditional music channels, including listening to the radio through a stereo/car (67%) and listening to a music channel on TV (46%), are still popular.

**TV and movie streaming in growth phase**

When it comes to TV and movies, traditional channels, such as the cinemas (56%), free-to-air TV (51%) and subscription TV (43%), are twice as popular as movie streaming services.

<table>
<thead>
<tr>
<th></th>
<th>Streaming</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Music</strong></td>
<td>89%</td>
<td>86%</td>
</tr>
<tr>
<td><strong>TV shows and movies</strong></td>
<td>41%</td>
<td>95%</td>
</tr>
</tbody>
</table>

Base: Malaysia (n=1,018)

Q. Which of the following do you use to acquire or listen to music?
Q. Which of the following do you use to access TV shows and movies?
Although the majority of Gen Y streams music, there is a significant proportion that listens to the radio in the car (60%).

1. Access to music via streaming comprises “watching YouTube”, “listening to the radio online”, and “via a streaming subscription service”.

2. Access TV shows and movies via streaming consists of “stream freely on a TV channel site or app”, and “via a streaming subscription service”.

Callout: popular modes of accessing media and entertainment

### Gen Y and Gen X
- Gen Y: 94%
- Gen X: 84%

are the key age segments that are likely to access music via streaming\(^1\).

### Half of Gen Y
- Accesses TV shows and movies via streaming\(^2\): 47%
- Access to radio in the car: 67%

- 34% of both Gen X and baby boomers listen to the radio online (52%).

### Music

- Watching YouTube: 83%
- Car radio/stereo: 67%
- Listen to the radio online: 52%

### TV shows and movies

- Go to the cinema: 56%
- Free to air TV: 51%
- Subscription to pay TV: 43%
Digital consumers – Digital attitudes
“Good morning, good night” smartphone and tablet attitudes

All age segments are digitally switched on

Eight out of 10 smartphone and tablet users check their smartphones/tablets immediately upon waking up and just before they sleep. Seventy-two percent of Malaysian smartphone and tablet users often multitask while using their devices, supporting the fact that Malaysia is a digitally converted nation.

Attitudes and behaviour amongst smartphone/tablet users

I check my smartphone or tablet just before I go to sleep. 82%

I check my smartphone or tablet when I wake up in the morning. 78%

I often multitask (do other things as well) while using a smartphone or tablet. 72%

I often feel overwhelmed keeping up with all of the information at my fingertips via my smartphone or tablet. 43%

I regularly switch off or get away from my smartphone or tablet to have some downtime. 42%

My social life would be non-existent without a smartphone or tablet. 39%

I’m addicted to my smartphone or tablet. 33%

I spend more time on my smartphone or tablet than I do talking with my partner or friends. 29%

Base: (Malaysia) smartphone/tablet users (n=948)

Q. To what extent do you agree or disagree with each of the following?

On average, 8 in 10 of Gen X, Y and baby boomers check their smartphones/tablets when they wake up in the morning.
Smartphones/tablets drive better communication and multitasking efficiencies

Eight in 10 Malaysian smartphone and tablet users agree that their devices have positive impact on their communication with family and friends.

Malaysians also see the positive impact of smartphones/tablets on their productivity:
- Help complete personal tasks (75%)
- Ability to multitask (74%)
- Improve work productivity (74%)

<table>
<thead>
<tr>
<th>Impact of smartphones/tablets among Malaysian users</th>
<th>Negative impact</th>
<th>Positive impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication with family and friends</td>
<td>6%</td>
<td>78%</td>
</tr>
<tr>
<td>Your ability to complete personal tasks or errands</td>
<td>4%</td>
<td>75%</td>
</tr>
<tr>
<td>Your ability to multitask</td>
<td>4%</td>
<td>74%</td>
</tr>
<tr>
<td>Your work productivity</td>
<td>6%</td>
<td>74%</td>
</tr>
<tr>
<td>Your social life</td>
<td>5%</td>
<td>70%</td>
</tr>
<tr>
<td>Your work-life balance</td>
<td>7%</td>
<td>65%</td>
</tr>
<tr>
<td>Your business networking</td>
<td>4%</td>
<td>64%</td>
</tr>
<tr>
<td>Your sense of belonging</td>
<td>5%</td>
<td>63%</td>
</tr>
<tr>
<td>Your happiness</td>
<td>4%</td>
<td>63%</td>
</tr>
<tr>
<td>Your sense of being in control</td>
<td>8%</td>
<td>59%</td>
</tr>
<tr>
<td>Your stress levels</td>
<td>11%</td>
<td>48%</td>
</tr>
<tr>
<td>Your sleep</td>
<td>25%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Base: (Malaysia) smartphone/tablet users (n=948)

Q. What impact do smartphones and tablets have on each of the following aspects of your life?

*Consists of ‘Your work-life balance’, ‘Your sense of being in control’, ‘Your sense of belonging’ and ‘Your happiness’
Attitudes and behavior to digital

Scope for higher digital engagement and shopping

The majority of Malaysians view search engines as an important part of their life (85%) and start their research online when looking for a new product or service (83%).

Consumer attitudes appear favorable for the e-commerce market in Malaysia:

• Fifty-eight percent of Malaysians agree they “feel confident using, purchasing and managing digital devices.”
• Fifty-one percent would like to be able to purchase from more retailers online.
• Thirty-eight percent would rather conduct transactions, such as ordering and purchasing, over the internet than by phone or face-to-face.

Attitudes to digital engagement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search engines (such as Google) have become an important part of my life.</td>
<td></td>
<td>85%</td>
</tr>
<tr>
<td>I download movies or TV shows from the internet.</td>
<td>16%</td>
<td>59%</td>
</tr>
<tr>
<td>I feel confident using, purchasing and managing digital devices.</td>
<td>10%</td>
<td>58%</td>
</tr>
<tr>
<td>I love to find new apps or websites.</td>
<td>10%</td>
<td>57%</td>
</tr>
<tr>
<td>I struggle to keep up with the rapid increase in digital device capabilities.</td>
<td>27%</td>
<td>39%</td>
</tr>
<tr>
<td>I don’t really understand what cloud services are.</td>
<td>39%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Attitudes to digital shopping

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>If I’m looking for a new product/service, I’ll typically look on the internet to start my research.</td>
<td>4%</td>
<td>83%</td>
</tr>
<tr>
<td>I’ll often conduct online research for a product while I am in store or at the point of purchase.</td>
<td>15%</td>
<td>59%</td>
</tr>
<tr>
<td>I would like to be able to purchase from more retailers online.</td>
<td>12%</td>
<td>51%</td>
</tr>
<tr>
<td>I’d rather conduct transactions, such as ordering and purchasing, over the internet than by phone or face-to-face.</td>
<td>25%</td>
<td>38%</td>
</tr>
<tr>
<td>I prefer to shop online for most things.</td>
<td>36%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Base: Malaysia (n=1,018)

Q. To what extent do you agree or disagree with each of the following?
Callout: Gen Y and Gen X have strong inclination toward online transactions

Key online shoppers include Gen Y (38%) and Gen X (27%) who prefer to shop online for most things.

2 in 3
Gen Y (65%) love to find new apps or websites versus Gen X (52%) and baby boomers (43%).

46%
of Gen Y would rather conduct transactions, such as ordering and purchasing, over the internet than by phone or face-to-face.
Digital consumers – Digital expenditure
Among Malaysia’s digital device spenders, smart TV is the highest up-front expenditure

Smart TV is increasing its presence in Malaysia’s living room as evident from the highest up-front digital expenditure. On average, Malaysians spend about RM1,657 on computers and about RM1,000 on their tablets, smartphones and game consoles.

<table>
<thead>
<tr>
<th>Digital Device</th>
<th>Average Up-front/Once Off Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart TV</td>
<td>RM1,902</td>
</tr>
<tr>
<td>Computers include laptops and software</td>
<td>RM1,657</td>
</tr>
<tr>
<td>Tablets</td>
<td>RM1,061</td>
</tr>
<tr>
<td>Smartphones</td>
<td>RM1,048</td>
</tr>
<tr>
<td>Game consoles</td>
<td>RM1,035</td>
</tr>
<tr>
<td>Wearable fitness devices</td>
<td>RM652</td>
</tr>
<tr>
<td>Traditional TV</td>
<td>RM637</td>
</tr>
<tr>
<td>Other once-off digital costs*</td>
<td>RM393</td>
</tr>
</tbody>
</table>

Base: Spend among Malaysia device spenders – smart/mobile phones (n=649), computers (n=392), tablets (n=169), smart TV (n=116), traditional TV (n=239), game consoles (n=50), wearable fitness devices (n=65), other once-off digital costs (n=489)

Q. In the past 12 months approximately, how much have you personally paid up-front (once-off fee) for your …? (Amounts quoted are in RM)

Smartphone or tablet apps are the largest monthly expenses

Digitally active Malaysian spent over RM200 per month on smartphone/tablet apps. They also spend substantially on their data plans for laptop (RM188).

<table>
<thead>
<tr>
<th>Digital Device</th>
<th>Average Monthly Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smartphone or tablet apps</td>
<td>RM213</td>
</tr>
<tr>
<td>Data plans for laptop</td>
<td>RM188</td>
</tr>
<tr>
<td>Home phone/internet plan</td>
<td>RM129</td>
</tr>
<tr>
<td>PayTV/cable (monthly subscriptions)</td>
<td>RM127</td>
</tr>
<tr>
<td>Data plans for tablets</td>
<td>RM110</td>
</tr>
<tr>
<td>Smartphone(s)/mobile phone(s)</td>
<td>RM100</td>
</tr>
<tr>
<td>Phone bills (exclude apps)</td>
<td>RM134</td>
</tr>
<tr>
<td>Other regular digital costs**</td>
<td></td>
</tr>
</tbody>
</table>

Base: Spend among Malaysia device spenders – smart/mobile bills (n=859), home phone/internet (n=750), payTV, music, streaming (n=372), smartphone/tablet apps (n=297), computers (n=180), tablet, e-reader or mini tablet data plans (n=83), other regular digital costs (n=159)

Q. On average, approximately how much do you personally spend on the following per month? (Amounts quoted are in RM)

*Other once off digital costs include connection fees for a new home internet provider, buying another type of digital device/accessory or antivirus software across your devices.

**Other regular digital costs include bundle packages when subscribers receive devices and services under the one bill.
Men spend more on computers than females, with an average of **RM806** in up-front/once-off costs (compared with RM519 among women).

On a monthly basis, Gen X (RM454) and baby boomers (RM452) are the key digital spenders. Gen Y spends less on monthly digital expenses (RM279) than Gen X and baby boomers, reflecting their life stage level of disposable income.

The biggest up-front expense is computer costs for men and mobile phones for women.
Most Malaysians feel they spend the right amount on digital devices

Seven out of 10 Malaysians believe they spent “just the right amount” on digital expenses — whether monthly or up-front.

On average, up-front digital device expenditure is RM2,169 and monthly at RM366.

The difference between spending too much/too little and “the right amount” was approximately RM1,000 to RM1,200 for up-front purchases, and RM120 to RM140 for monthly purchases.

Base: Malaysia (n=1,018)

Q. Which of the following statements best apply to you?
Digital business
Digital performance index: “best” rating minus “worst” rating

Social media ranked highest for best experience

Asked which industries provided the best and worst digital experiences, more than half of Malaysians selected social media as one of the best.

The entertainment industry (including TV, films and media) ranked second with a net index of more than 31%.

Government online, dating and gambling services ranked least popular

One-third of Malaysians rated their online government services as one of their worst experiences. Other less popular online sites include dating and gambling services.

Across other sectors, including banking, telcos and lifestyle, there appears to be room to improve the digital experience.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Best Experience</th>
<th>Worst Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social media</td>
<td>+51%</td>
<td></td>
</tr>
<tr>
<td>Entertainment, TV, films and media</td>
<td>+31%</td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td>+21%</td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td>+17%</td>
<td></td>
</tr>
<tr>
<td>Financial services</td>
<td>+15%</td>
<td></td>
</tr>
<tr>
<td>Telecommunications</td>
<td>+15%</td>
<td></td>
</tr>
<tr>
<td>Computer/console games</td>
<td>+13%</td>
<td></td>
</tr>
<tr>
<td>Hotels</td>
<td>+9%</td>
<td></td>
</tr>
<tr>
<td>Lifestyle</td>
<td>+5%</td>
<td></td>
</tr>
<tr>
<td>Newspapers</td>
<td>+4%</td>
<td></td>
</tr>
<tr>
<td>Health, fitness and sport</td>
<td>+2%</td>
<td></td>
</tr>
<tr>
<td>Beauty and health products</td>
<td>+1%</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>+1%</td>
<td></td>
</tr>
<tr>
<td>Clothes and footwear</td>
<td>+1%</td>
<td></td>
</tr>
<tr>
<td>Magazines</td>
<td>-3%</td>
<td></td>
</tr>
<tr>
<td>Restaurants</td>
<td>-3%</td>
<td></td>
</tr>
<tr>
<td>Automotive</td>
<td>-4%</td>
<td></td>
</tr>
<tr>
<td>Investment, superannuation and pension/retirement savings</td>
<td>-9%</td>
<td></td>
</tr>
<tr>
<td>Groceries</td>
<td>-12%</td>
<td></td>
</tr>
<tr>
<td>Real estate</td>
<td>-12%</td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>-12%</td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td>-13%</td>
<td></td>
</tr>
<tr>
<td>Gambling</td>
<td>-25%</td>
<td></td>
</tr>
<tr>
<td>Dating services</td>
<td>-26%</td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>-33%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Figures calculated by subtracting the percentage of “worst” responses from the percentage of “best” responses for each industry sector.
High-quality digital experience includes security, convenience, customization and real-time services

Safety and security critical
Malaysians almost unanimously rate the safety and security of transactions and data storage of personal data as “very or fairly important.”

Convenience = seamless access
Three out of four Malaysians (73%) say that “an easy to navigate website” is very important to create a high-quality digital experience, reflecting the importance of convenience and accessibility.

Customization makes the difference
More than two-thirds (69%) of Malaysians rate being responsive to online customer queries and feedback as very important.

Other key factors include:
- A website optimized for viewing and using on a mobile phone (53%)
- Developing dedicated apps for common needs (46%)

Speed is important
A high-quality digital experience also includes real-time/live updates. Respondents rate the following as being of high importance:
- Providing online order tracking or live updates (59%)
- Access to “live” assistance online or by phone (47%)

Safety and security

<table>
<thead>
<tr>
<th></th>
<th>Very important</th>
<th>Fairly important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe and secure transactions</td>
<td>86%</td>
<td>12%</td>
</tr>
<tr>
<td>Secure storage of personal details</td>
<td>74%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Real-time/live update and assistance

<table>
<thead>
<tr>
<th></th>
<th>Very important</th>
<th>Fairly important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing online order tracking or live updates</td>
<td>59%</td>
<td>37%</td>
</tr>
<tr>
<td>Access to “live” assistance online or by phone</td>
<td>47%</td>
<td>41%</td>
</tr>
</tbody>
</table>

Ease/convenience

<table>
<thead>
<tr>
<th></th>
<th>Very important</th>
<th>Fairly important</th>
</tr>
</thead>
<tbody>
<tr>
<td>A website that is easy to navigate</td>
<td>73%</td>
<td>25%</td>
</tr>
<tr>
<td>Having general or product information that is easy to find</td>
<td>63%</td>
<td>33%</td>
</tr>
<tr>
<td>Having contact information that is easy to find</td>
<td>63%</td>
<td>33%</td>
</tr>
<tr>
<td>Having an easy process for buying goods and services</td>
<td>60%</td>
<td>35%</td>
</tr>
<tr>
<td>Enabling ordering and purchasing to be handled online</td>
<td>51%</td>
<td>43%</td>
</tr>
<tr>
<td>Having your information seamlessly integrated across all points of contact</td>
<td>54%</td>
<td>37%</td>
</tr>
<tr>
<td>Having the same experience online as you would in-store or vice versa</td>
<td>46%</td>
<td>46%</td>
</tr>
</tbody>
</table>

Customization

<table>
<thead>
<tr>
<th></th>
<th>Very important</th>
<th>Fairly important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being responsive to online customer queries and feedback</td>
<td>69%</td>
<td>27%</td>
</tr>
<tr>
<td>A website that is optimized for viewing and using on a mobile phone</td>
<td>53%</td>
<td>41%</td>
</tr>
<tr>
<td>Developing dedicated apps for common needs</td>
<td>46%</td>
<td>41%</td>
</tr>
<tr>
<td>Integrating websites with social media or other networks</td>
<td>38%</td>
<td>44%</td>
</tr>
<tr>
<td>Tailoring of any digital advertising and promotion to your interests or characteristics</td>
<td>33%</td>
<td>47%</td>
</tr>
</tbody>
</table>

Base: Malaysia (n=1,018)

Q. How important are each of the following for organizations that wish to provide high-quality digital experiences?
Digital expectations and concerns

Sustaining a high-quality digital experience

Not surprisingly, given their high levels of digital activity, 60% of Malaysians say that organizations that fail to offer a high-quality digital experience run the risk of losing them as a customer.

More than half (55%) of Malaysians judge a company by their online presence. More than two-fifths (41%) prefer social media engagement and more than one-third (36%) are disappointed if a company does not have an app.

Strong concerns on data protection

Malaysians are highly concerned with what personal information is collected from their online behavior, activity and use of devices.

This may indicate that government agencies and online businesses need to improve their communications on data privacy and related on personal information protection.

Digital expectations

Organizations that fail to offer consumers a high-quality digital experience run the risk of losing me as a customer.

10% Disagree  60% Agree

I judge a company by their online presence.

16% Disagree  55% Agree

I prefer to communicate with an organization via social media than any other method of communication.

21% Disagree  41% Agree

I am disappointed if a company doesn’t have an app.

27% Disagree  36% Agree

Digital concerns

Organizations should be more transparent or up-front about how they use the consumer information they capture.

1% Disagree  83% Agree

I worry about what personal information organizations can access (such as my location or messages).

4% Disagree  78% Agree

I worry about what information organizations can access about my digital behavior (such as what I do online).

7% Disagree  70% Agree

I worry about what health information organizations can access (such as data from wearable fitness devices or smartphones).

11% Disagree  55% Agree

Base: Malaysia (n=1,018)

Q. To what extent do you agree or disagree with each of the following?
Online banking payment most frequent mode

Although Malaysia has very high smartphone usage (91%), payments made by tapping a mobile phone are the least frequently used payment mode (42% regularly or occasionally used) for making purchases or paying bills.

Despite the relative convenience of tapping credit cards, it appears that Malaysians are regularly making payment through apps. These apps are largely from banks (37%) rather than nonbanks (14%).
Scope for infrastructure upgrades

Malaysia's ranking as a digital economy

Although 40% think that Malaysia is at par or more advanced than leading nations, a larger proportion (57%) believe that Malaysia is less advanced than other leading nations.

With Malaysia's emerging market status and aspirations to be developed by 2020, there is scope for the government and the private sector to collaborate in improving Malaysia's digital infrastructure quality.

Pertinent to note that in late 2016, the Malaysian government announced initiatives to upgrade the speed of Malaysia's broadband infrastructure at cost-competitive prices.

Perceptions of Malaysia's digital economy

<table>
<thead>
<tr>
<th>Perceptions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much more advanced</td>
<td>3%</td>
</tr>
<tr>
<td>A little more advanced</td>
<td>17%</td>
</tr>
<tr>
<td>About the same as other leading developed countries</td>
<td>20%</td>
</tr>
<tr>
<td>A little less advanced</td>
<td>41%</td>
</tr>
<tr>
<td>Much less advanced</td>
<td>16%</td>
</tr>
<tr>
<td>Don't know</td>
<td>3%</td>
</tr>
</tbody>
</table>

Base: Malaysia (n=1,018)

Q. In your opinion, how advanced is the Malaysian digital economy compared with the digital economies of other leading developed countries?
Areas of digital infrastructure improvements

Transparency and cyberbullying
Key concerns lie in the area of cyberbullying (69%) and the transparency of consumer information (69%).

Seven in 10 Malaysians are concerned about cyberbullying in their country. However, Malaysians are divided as to whether the government is taking adequate action to protect citizens against cyberbullying, with 32% agreeing and 28% disagreeing.

Many Malaysians look to the government to potentially play a bigger role in tracking online behavior, with half (50%) agreeing that the government could take a more active role in monitoring what people are doing online.

Digital affordability a perceived barrier
Approximately, half of respondents did not agree that the costs of accessing data, whether through fixed internet, mobile internet or while roaming, were reasonable.

As affordability is a key driver of the readiness subindex in WEF’s Network Readiness Index (NRI), Malaysia’s lowest ranking subindex, this is an area that can be addressed.

Moderate achievements
- The National Broadband Initiative will help ensure Malaysia has a world-class digital economy.
- The government is doing a good job in using technology to improve the services it provides.
- The government is taking adequate action to protect against cyberbullying (e.g., online harassment, trolling).
- The current telephone network coverage in Malaysia is reasonable.

Areas to improve
- The current internet speed (via fixed internet access or mobile devices) in Malaysia is reasonable.
- The current cost of fixed internet access in Malaysia (e.g., broadband) is reasonable.
- Current cost of data used in Malaysia for mobile devices (e.g., phones and tablets) is reasonable.
- The current cost of data used when roaming overseas for mobile devices (e.g., phones and tablets) is reasonable.
- I am concerned about the amount of cyberbullying (e.g., online harassment, trolling) in Malaysia.
- Governments could force organizations to be more transparent or up-front about how they use the consumer information they capture.
- The government could take a more active role in monitoring the online activity of people.
EY’s team of digital consultants deliver world-class business transformation globally and locally. Our digital capability is embedded across all of our services supporting a whole-of-business recommendation. Our data-driven insights along with our global experience and networks support us to deliver results in digital business transformation.

Our solutions help organizations to drive business transformation, elevate customer experience and engagement and identify demand for and test new products and services.

Understanding the intersection of business, risk and digital is fundamental to EY’s digital experience and capability.

**Digital at EY**

**Enterprise strategy**
We help our clients to re-think their business strategy and operating model for a digital age.

**Digital trust**
We scan the digital risk horizon and help our clients build agility to respond to digital risks.

**Incubation and innovation**
We establish an end-to-end innovation capability to incubate new ideas and business models.

**Digital experience transformation**
We analyze the world of the customer then design and implement new experiences.

**Digital operations**
We align, optimize and automate operations and supply chain to deliver on the promise of digital.
EY thought leadership

- **Cybersecurity and the Internet of Things**
  - March 2015

- **When shoppers demand a seamless experience, what can digital shelves offer?**
  - June 2015

- **Consumerisation and the digital enterprise**
  - June 2015

- **Creating trust in the digital world**
  - November 2015

- **Can privacy really be protected anymore?**
  - February 2016

- **Megatrends 2016: The upside of disruption**
  - May 2016

- **Internet of Things: Unlocking possibilities**
  - June 2016

- **Designing Data Science**
  - June 2016
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Decoding the Malaysian digital DNA: from smart to savvy
Addendum
Useful facts
Malaysia’s ranking – digital infrastructure

<table>
<thead>
<tr>
<th>Drivers of NRI*</th>
<th>Malaysia Score</th>
<th>Malaysia world ranking (2016)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>5.1</td>
<td>21st</td>
</tr>
<tr>
<td>Usage</td>
<td>5.1</td>
<td>30th</td>
</tr>
<tr>
<td>Readiness</td>
<td>4.8</td>
<td>73th</td>
</tr>
<tr>
<td>Impact</td>
<td>4.6</td>
<td>30th</td>
</tr>
</tbody>
</table>

In Malaysia’s Budget 2017¹, the government announced initiatives to upgrade Malaysia’s broadband infrastructure in accelerating the growth of Malaysia’s digital economy.

There are proposals to upgrade nationwide broadband to 20 Mbps (general consumers).

In addition, the government introduced new location categories such as the Malaysian Digital Hub and the Digital Free Zones and the implementation of Malaysia Digital Economy Corporation’s (MDEC) digital programmes (e.g. e-commerce ecosystem and Digital Maker Movement).

74th out of 112 countries global ranking for internet speed
6.4 Mbps average connection speed by IPv4²
70.1% of Malaysians with internet access³
10.1 fixed broadband internet subscription/100 population³
58.3 mobile-broadband internet subscription/100 population³

1. Budget 2017 speech, Malaysia’s Ministry of Finance (MoF).
2. State of Internet Report, Q1 2016, Akamai Technologies Inc.

Note: *The Network Readiness Index (NRI) is a metric derived by the World Economic Forum (WEF) to help assess and rank countries on their ability to exploit opportunities afforded through technology, more specifically information and communications technology (ICT). The index, based on four key drivers, shows that Malaysia is ranked favorably in context of a country grouping that is classified as “emerging and developing Asia,” being the only country in the said group to rank in the top 50.
Malaysians are increasing their daily internet consumption, seamlessly across work to home

**Frequency of internet usage**

- **2015**: 86.6% at least once a day, 60.3% at least once a week, 10.5% less than once a week.
- **2013**: 84.7% at least once a day, 55.2% at least once a week, 7.7% less than once a week.

**Main locations of using internet**

- **Home**: 75.0% in 2015, 72.2% in 2013.
- **Mobility**: 41.5% in 2015, 33.4% in 2013.
- **Workplace**: 22.7% in 2015, 25.9% in 2013.
- **Commercial internet access facility**: 2.9% in 2015, 9.5% in 2013.

**Malaysians are adopting a digital lifestyle with internet integrated in their daily activities**

- **Participating in social networks**: 84%
- **Getting information about goods and services**: 80%
- **Downloading images, movies, videos or music, playing or downloading games**: 76%
- **Sending or receiving emails**: 68%
- **Reading or downloading online newspaper or magazine, e-books**: 61%
- **Downloading software or applications**: 61%

**Average** amount of time spent on digital devices over a day: **13.7 hours**

- **3.3 devices** average number of digital devices used for work or personal use.

**Useful facts**

Malaysian digital behavior

1. ICT Use and Access By Individuals and Households Survey Report, Malaysia, 2015, Department of Statistics Malaysia
2. Internet users survey 2014, Malaysian Communications and Multimedia Commission

*Average calculated by assuming midpoints in categorical data and includes the potential for multi- or “second” screening on computers, mobile phones, TV, tablets and game consoles.*
## Addendum: country comparisons (selected)

### Digitally active nation

Malaysians spend longer hours on digital devices.

<table>
<thead>
<tr>
<th></th>
<th>MY</th>
<th>SG</th>
<th>NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smartphone penetration</td>
<td>91%</td>
<td>95%</td>
<td>79%</td>
</tr>
<tr>
<td>Average time engaging with digital devices</td>
<td>13.7</td>
<td>12.7</td>
<td>8.8</td>
</tr>
<tr>
<td>Average digital devices per person</td>
<td>3.3</td>
<td>4.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Internet access per household</td>
<td>67%</td>
<td>94%</td>
<td>88%</td>
</tr>
</tbody>
</table>

### Perceived gaps in maturity, experience and affordability

Over half of Malaysians are dissatisfied with internet speed.

<table>
<thead>
<tr>
<th>Maturity: perception of digital economy with advanced nations</th>
<th>More advanced</th>
<th>Similar</th>
<th>Less advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>MY</td>
<td>20%</td>
<td>20%</td>
<td>57%</td>
</tr>
<tr>
<td>SG</td>
<td>52%</td>
<td>30%</td>
<td>13%</td>
</tr>
<tr>
<td>NZ</td>
<td>25%</td>
<td>29%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Experience: perception on internet speed quality

<table>
<thead>
<tr>
<th>Experience: perception on internet speed quality</th>
<th>Satisfied</th>
<th>Neither</th>
<th>Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>MY</td>
<td>25%</td>
<td>22%</td>
<td>53%</td>
</tr>
<tr>
<td>SG</td>
<td>41%</td>
<td>44%</td>
<td>15%</td>
</tr>
<tr>
<td>NZ</td>
<td>35%</td>
<td>23%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Affordability: perception on digital expenditure and cost

<table>
<thead>
<tr>
<th>Affordability: perception on digital expenditure and cost</th>
<th>Spend too much</th>
<th>Spend just the right amount</th>
<th>Spend too little</th>
<th>Cost of internet access is reasonable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MY</td>
<td>15%</td>
<td>69%</td>
<td>16%</td>
<td>25%</td>
</tr>
<tr>
<td>SG</td>
<td>23%</td>
<td>64%</td>
<td>13%</td>
<td>34%</td>
</tr>
<tr>
<td>NZ</td>
<td>31%</td>
<td>63%</td>
<td>6%</td>
<td>20%</td>
</tr>
</tbody>
</table>

### Call for higher cybersecurity

Like regional peers, Malaysians desire higher transparency and cybersecurity.

<table>
<thead>
<tr>
<th>Call for higher cybersecurity</th>
<th>Desire for secure online transactions</th>
<th>Organizations should be transparent on usage of consumer information</th>
<th>Government should force organizations to be more transparent or up-front about how they use the captured consumer information</th>
</tr>
</thead>
<tbody>
<tr>
<td>MY</td>
<td>98%</td>
<td>83%</td>
<td>69%</td>
</tr>
<tr>
<td>SG</td>
<td>98%</td>
<td>81%</td>
<td>75%</td>
</tr>
<tr>
<td>NZ</td>
<td>98%</td>
<td>77%</td>
<td>68%</td>
</tr>
</tbody>
</table>
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