Information and Communications Technology (ICT) and Digital Adoption: E-Readiness of Malaysian SMEs

Socio-Economic Research Centre (SERC)

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Executive Summary

This survey gauges the extent of information and communications technology (ICT) and digital technologies adoption by small and medium-sized enterprises (SMEs). The adoption of technologies entail the level of IT usage; adequacy of know-how; availability of technical-savvy workforce; and financial resources.

The survey was conducted on a random sampling. A total of 1,225 questionnaires were sent out and only 159 responded, generating a response rate of about 13%.

Key findings of the survey are as follows:

1. The **overall level of ICT adoption** is **marginally above moderate**, and primarily in a handful of designated operations or purposes.
2. The size and activity of the business influences the adoption of ICT. As expected, medium-sized SMEs generally have high usage of ICT.
3. The usage of ICTs are mostly in administrative and e-mail communication along the value chain. The most widely used technology applications by SMEs are accounting packages, word processing, and spreadsheets. On a less encouraging note, there is limited utilization of advanced ICT applications (ERP, CRM, AI, and Big Data).
4. **Only 16%** respondents said that they are currently using e-commerce while 11% disclosed that their businesses can function without the deployment of e-business.
5. Most SMEs acknowledged the **tangible benefits of integrating digital technology into their core business operations**. These include unlimited avenue to sell in domestic and overseas markets, time and cost savings as well as enhanced customer service delivery.
6. **Data privacy and user protection** against fraud should be accorded top priority to provide a strong sense of personal security and trust to encourage the adoption of digital technology.
7. **E-government services** should also be expedited to speed up decision making processes, reduce bureaucracy, save cost as well as increasing work processes transparency.
8. About **62% of respondents have either heard or aware** of the **Digital Free Trade Zone** (DFTZ). 19% have not even heard or aware about it. Though the respondents were aware of DFTZ, many are still oblivious to the functions of DFTZ. Nevertheless, they believe that DFTZ will likely be a regional e-commerce hub to tap into regional markets.
9. The **factors that hindered the slow adoption of ICT** are financial constraints; lack of know-how; lack of in-house expertise and technical skills as well as security uncertainty.
10. **Only 29% of respondents placed digital technology as top business planning priority.** While more than half of SMEs viewed innovation and digital technology as important but not an urgent priority.

Despite the challenges and barriers inhibiting the use and adoption of digital technology by SMEs, there is no doubt that new wave of innovation will drive the higher level usage of digital technology with the Internet of Things. In a nutshell, SMEs, irrespective of size must be ready and leverage on the deployment of digital technologies and tools to capture the returns of fast growing e-commerce.

The Government have put in place the supporting initiatives and laid digital infrastructure to drive the e-commerce growth. These together with the establishment of Digital Free Trade Zone (DFTZ) can be enhanced further to create a favourable conducive ecosystem to accelerate the adoption and integration of digital technologies with e-commerce as the new business model, a departure from “business as usual” to fully harness business propositions and expand market frontiers.

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1.0 Background and objectives of the survey

The revolution of information and communications technology (ICT) has literally changed every aspect of the way any business operates. The “business as usual” models have been transformed into e-business commerce draws on technologies such as mobile commence and digital applications.

E-commerce has enjoyed exponential growth in recent years. While global e-commerce sales were estimated at US$1.9 trillion in 2016, many developing countries have yet to take full advantage of this borderless market frontier. ASEAN-6 contributed less than 1% of global e-commerce volume in 2015.

Booming e-commerce sales in the Asia-Pacific region have surpassed North America and Western Europe in terms of business to consumer (B2C) sales. Small- and medium-sized enterprises’ (SMEs) use of electronic commerce is key to economic growth in Asia Pacific, and are ready to enhance the technology needed to grow their businesses. Key factors cited as critical to fostering e-commerce use by SMEs include expanding customers and markets, raising the level of trust and safeguarding customer protection, improving supply chain integration, financing support, accessing information about suitable business models and technologies for electronic commerce.

E-commerce is growing fast in Malaysia as more businesses are jumping on the bandwagon, a growth trend likely to multiply in scale in years to come. E-commerce sales generated stood at RM68.0 billion or 5.9% of GDP in 2015. With the Government’s initiative spurring e-business as a critical enabler to boost revenue and output growth of Malaysian businesses, the National E-Commerce Strategic Roadmap has mapped out strategic thrusts to chart a trajectory path of e-commerce. The target is to achieve an annual growth of between 10.8% - 20.8%, to reach a GDP contribution of more than RM170 billion by 2020. If Malaysia continues to stay on a business-as-usual course without the government’s strategic intervention, the e-commerce growth will only contribute RM114 billion by 2020.

1.1 Background of survey

In the current era of rapidly evolving techno-driven business environment, information and communication technologies (ICT) are requisites to support businesses’ needs and to harness value proposition, irrespective of the size and scale of business. A strong ICT strategy is pivotal to competitive survival for today's businesses as it has become a pervasive part of our business, working, living and consumerism environments, and will continue to be an integral resource for businesses to enhance their competitiveness and efficiency.

Digital revolution saw the advent development and emergence of new applications like broadband, Cloud computing, Big Data analytics, Artificial Intelligence (AI), Internet of Things (IoT) etc. which are key enablers reaching out to unlimited and borderless markets. The Internet of Things and digital transformation have widely opened up the potential for small and medium-sized enterprises (SMEs) to adopt and leverage on ICT to grow their businesses.

E-commerce is a powerful platform for SMEs to leapfrog their products and markets development. By tapping on the digital age, SMEs can go beyond local and national markets, making footprints in regional markets, thus connecting to the global marketplace. The establishment of Digital Free Trade Zone (DFTZ) is seen as one of the game changer initiatives to drive SMEs into championing the e-commerce or digital business

How will the digital adoption or e-commerce facilitate the growth of Malaysian SMEs? As the SMEs represent a diverse range of micro, small and medium-sized firms, their readiness in adoption and use of e-commerce will be further examined.

Given the immense digital potential, SMEs must be ready to embrace and leverage on ICT to grow their businesses. The questions that may arise are whether the adoption of ICT and digitalization can help the SME entrepreneurs to seek better information about global markets and enable them direct access to new customers; and whether they face challenges and constraints in the ICT adoption process.

1.2 Objectives of the survey

In this study, we attempt to explore the usage and effects of ICT on SMEs and their perception towards a digital environment; and identify the critical issues encountered in digitalizing their businesses.

Principal objectives of the study are as follows:

1. To investigate how ready SME businesses across sectors are in terms of connectivity, capability and confidence when embracing technology and re-engineering their business models.
2. To explore the usage and effects of ICT on SMEs and their perception towards a digital environment.
3. To identify the factors that cause the digital divide and gaps between SMEs and large companies. What are the barriers and challenges encountered by SMEs in the adoption of ICT? How the government facilitates them to participate actively in the digitalization ecosystem; and
4. To assess the potential impact of Digital Free Trade Zone (DFTZ) as a regional e-commerce hub and how Malaysian SMEs would leverage on the digital platform to outreach borderless markets?

It is hoped that the study outcome would contribute to better understanding of behavior change of SMEs (or resistance to change), and proposes improvements to existing initiatives for the adoption of digital technology and e-commerce. The inhibiting factors comprise the infrastructure support, financial resources, human capital, IT resources or government's support will be examined in efforts to help SMEs participate actively in the digitalization ecosystem.

2.0 Survey approach and methodology

The study was carried out based on the results of a random sampling survey, in which a close-ended questionnaire was used to collect the primary data. For this study scope, ICT refers to the range of computerized information and communication technologies, i.e. including desktop computers, laptops, mobile devices, network, business software such as enterprise software, spreadsheet, data storage, network, etc.

Primary data collection was carried out via a 5-page questionnaire, distributed directly and electronically to respondents. The questionnaire contains closed-ended questions, which are structured on five-point Likert scale, and the respondents were required to indicate or rank their reactions and views on each of the issues asked.

The survey is structured into four sections as follow:

1. **Section A** consists of six questions concerning the demographic profile of SMEs in terms of the type of principle activity and industry involved, size of business operations, numbers of employees, and type of ownership structure.
2. **Section B** contains seven questions to evaluate their basic level of ICT adoption in technology applications such as the use of email, Internet, social media, etc. In addition, it is also to gauge their level of e-readiness and how the digital technology tools have impacted them at firm level across the various business units?
3. **Section C** has eight questions to determine the intensity use of digital technology and e-commerce; and their perceived advantages and challenges when adopting these technologies.
4. **Section D** specifically examines their opinions on the establishment of the Digital Free Trade Zone (DFTZ).

The questionnaire was prepared in English and translated into Malay and Chinese languages. These questionnaires are attached as Appendix 1.

A simple random sampling was used. Questionnaires were distributed to ACCCIM constituent members, and through SME Corp during their events. The questionnaires were also circulated as google link forms placed in several social media pages (namely *SME Connect, Persatuan Pengusaha-Pengusaha Perusahaan Kecil Dan Sederhana Selangor, and Perbadanan Usahawan Nasional Berhad),* and to several local personal contacts via telephone.

A total of 1,225 questionnaires were sent out and only 159 were received, generating a response rate of about 13%. Data collected was collated and analyzed using descriptive statistics.

Limitation of study. The small sample size constraints our ability to generalize the results of SMEs' readiness of ICT in Malaysia, and limits proper inferences of any relationship amongst the readiness factors. Therefore, future studies must attempt to have a larger sample size of SMEs with adequate representation from a cross-section of industry.

3.0 Analysis of survey's results

3.1 Section A - Demographics profile of respondents

- The respondents represent a cross-section of business sectors, namely manufacturing (19.5%), wholesale & retailing (21.4%), construction & property development (12.6%), trading-import-export (7.5%), professional services (17.0%), hospitality (3.1%), ICT (4.4%), logistics (3.8%), agriculture (3.8%), and mining (1.3%).
- SMEs constitute nearly 97% of the total respondents. The breakdown of micro, small and medium enterprises was 25%:59%:13%.

Figure 1: Respondents by sector or type of industry

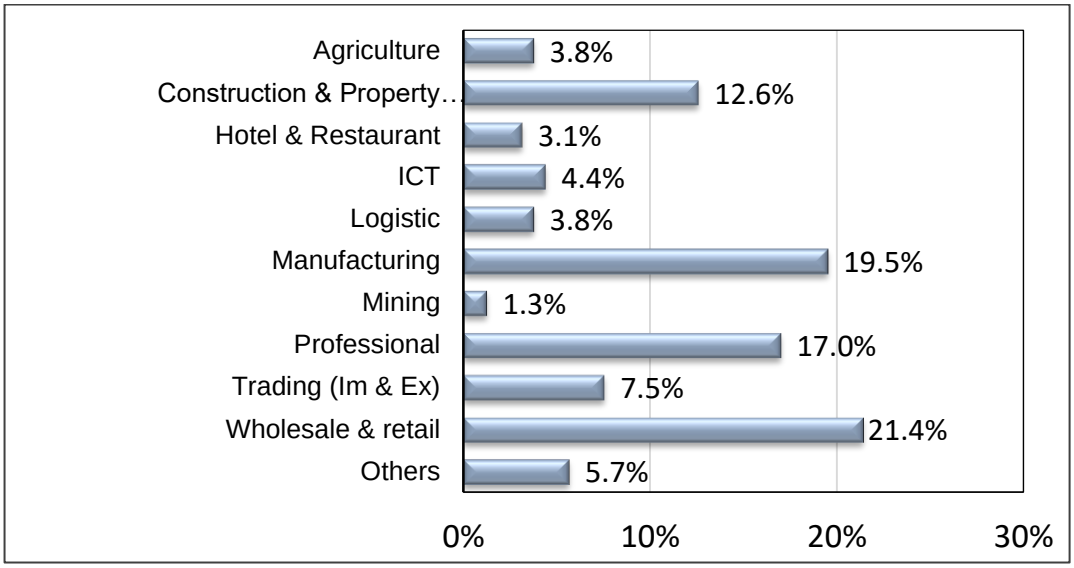
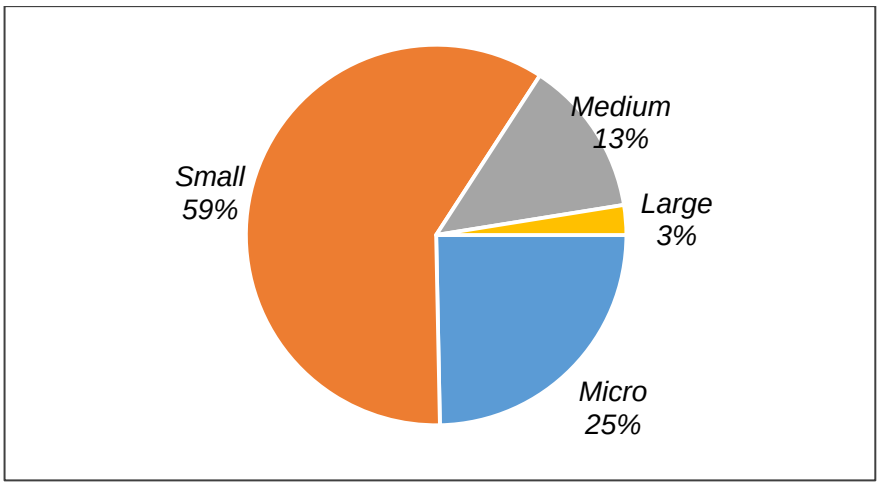
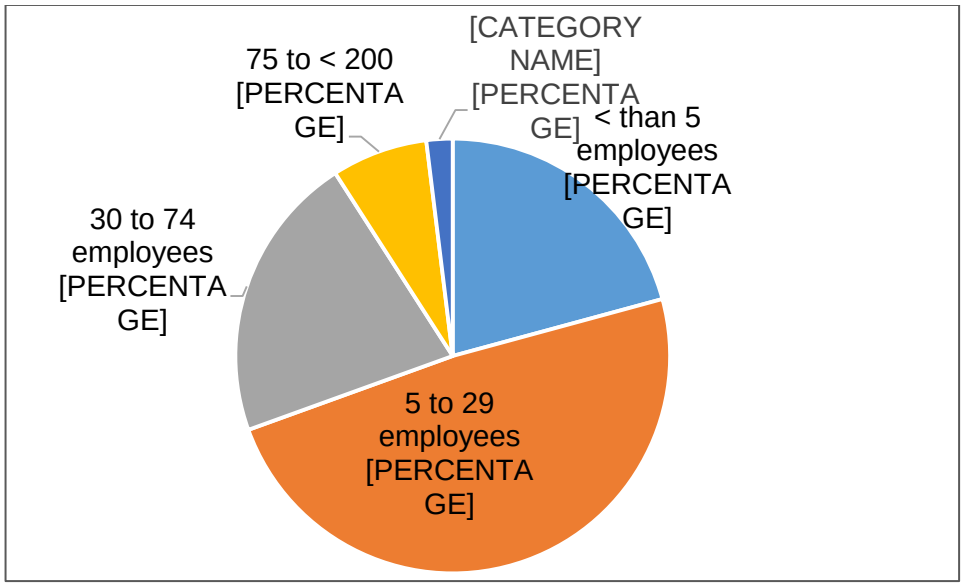


Figure 2: Respondents according to business size



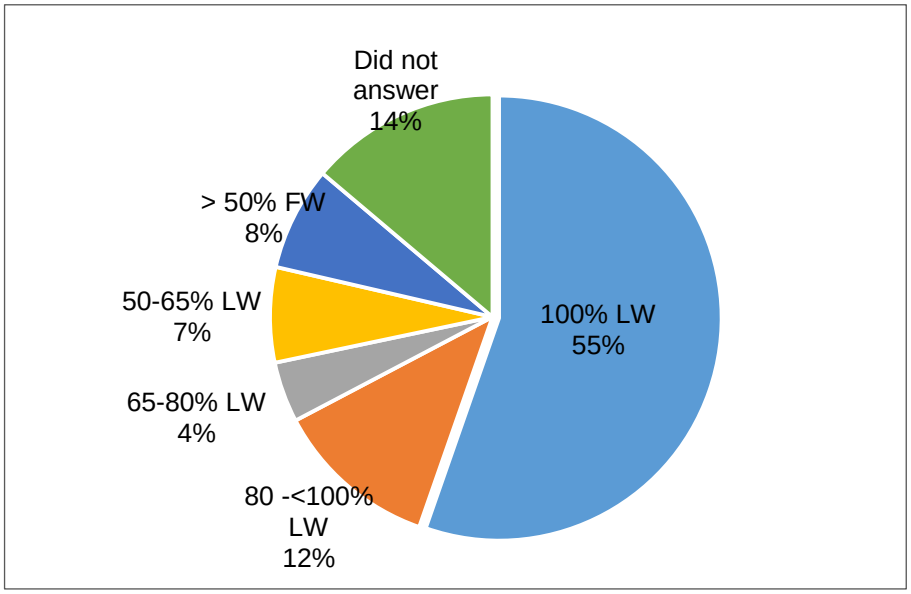
- In terms of the nature of ownership, more than 97% are local entrepreneurs.
- In terms of employee numbers, a large proportion (83%) of respondents have 10 to 19 employees, while another 17% of SMEs have 20 - 49 employees.

Figure 3: Number of fulltime employees employed



- About 55% of respondents are employing 100% local workers. Most of these respondents are from the wholesale/retailing sector and professional services type of business.
- Nearly 12% of respondents are having at least 80% local employees while 8% of respondents are employing more than 50% foreign workers.
- By location, the bulk of respondents are in the states of Selangor/Wilayah Persekutuan (18%), Johor (11%), Perak (10%), Malacca (10%) while the balance are located in the states of Kedah, Sarawak, Negeri Sembilan, Penang, Sabah, Terengganu, Perlis, Kelantan, and 18% of respondent did not disclose their location.

Figure 4: Employment of foreign workers

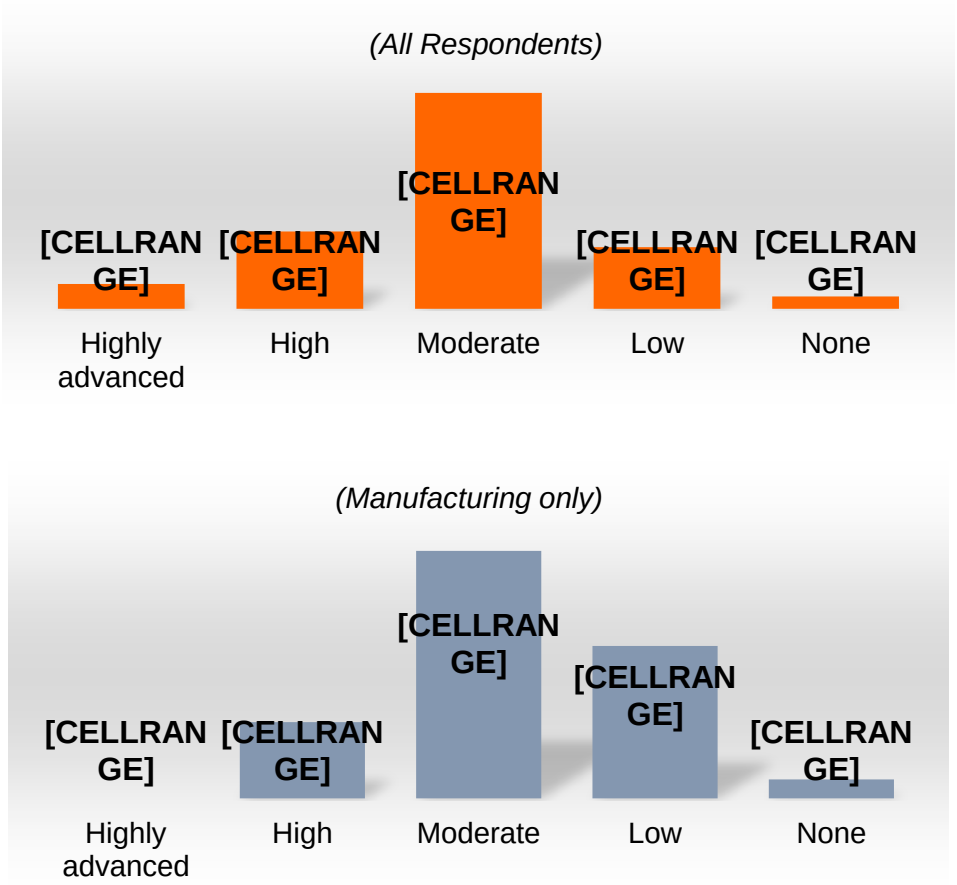


3.2 Section B - Level of ICT Adoption

(a) **Perceived overall use of digital technology**

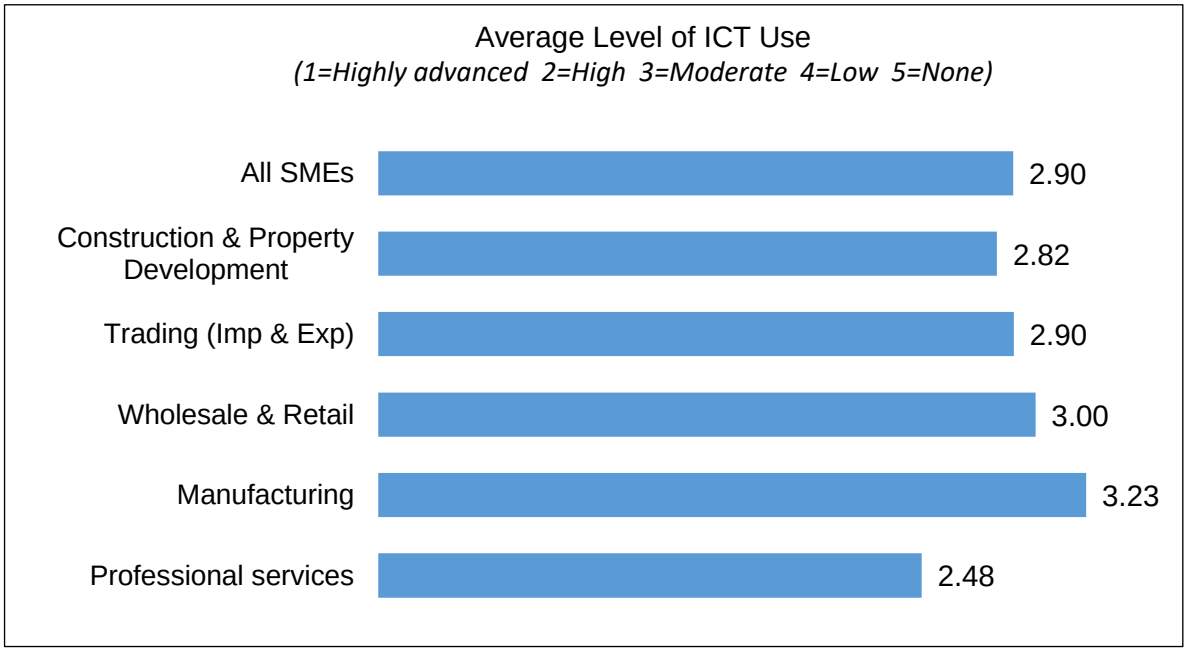
- Applications of ICTs and e-business strategies enable businesses to reach out wider market and faster access. Businesses across the sectors were asked how they perceived their level use of ICT.
- About 55% across the sectors generally rated their level as "*moderate*" while 20% as "*high*" and 16% perceived themselves as "*low*" adopters.
- Higher level of adoption is more relevant for larger SMEs, primarily medium-sized businesses while the incidence of low adoption is more apparent among the micro and small businesses.
- A further breakdown of cross-sectors revealed a similar pattern, but there were some differences in the usage of ICT across different sectors. Manufacturing businesses' adoption of ICT skewed relatively high towards "*low-moderate*".

Figure 5: Current use of ICT



- It is observed that SMEs across selected sectors (i.e. construction and property development; import-export trading; wholesaling and retailing business; manufacturing, and professional services) have some sectoral differences in ICT adoption, which may be associated with their e-business strategies as illustrated in Figure 6.

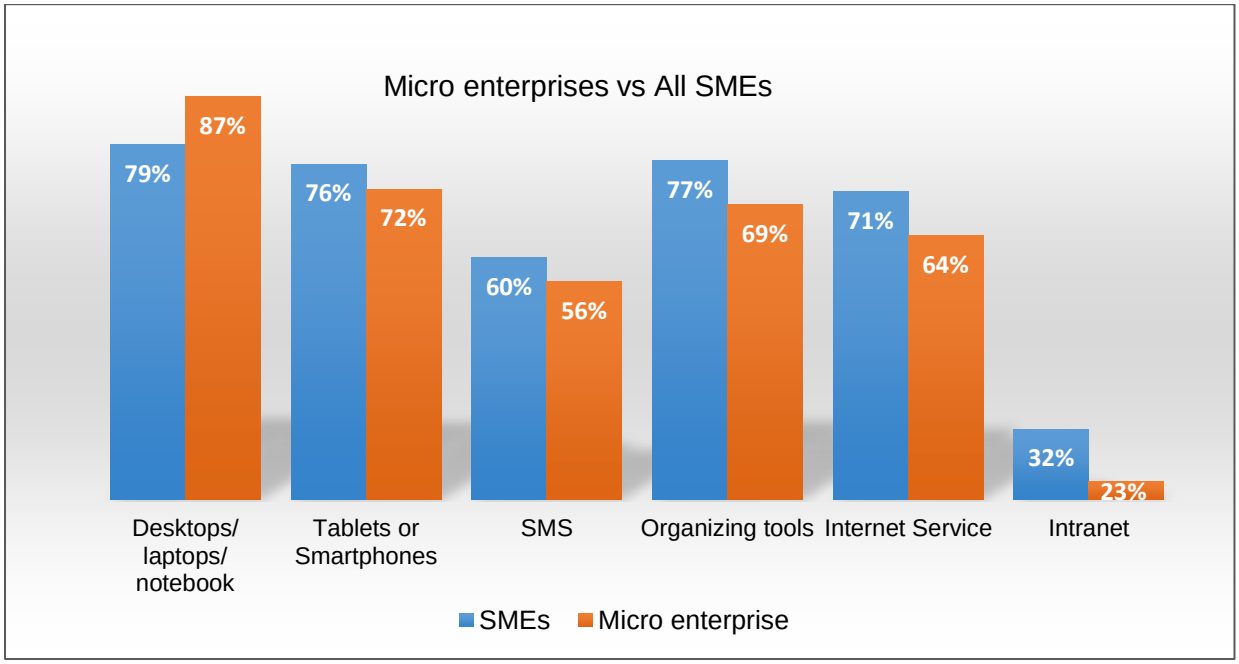
Figure 6: Use of ICT by sector or type of industry



- A lower mean value of 2.0 shows nearer inclination towards "*high usage*" and 1.0 means "*highly advanced usage*" of ICT. The overall mean of current level of ICT usage amongst the SMEs respondents was 2.90 or "*moderate*".
- Professional services seem to have relatively higher level of adoption compared to other industry sub-sectors, having a mean value of 2.48 versus the overall average score of 2.90.
- The mean value for manufacturing SMEs was marginally above "*moderate*" with a score of 3.23 as shown in Figure 6. This is not surprising considering the potential adoption of automation or technology by the existing labor-intensive firms or current business size of many SMEs.
- Wholesale and retailing businesses have a mean score of 3.00 (*moderate*), indicating that SMEs have adopted moderate level of technologies to be functionally ready for e-commerce, and also compliant with the GST environment.

(b) **Physical access to ICT devices/tools**

Figure 7: Physical access to ICT devices and tools



- SMEs have acknowledged that ICTs such as computer devices, the Internet, smartphones and other business organizing tools have had impacts on their daily business operations.
- As shown in Figure 7, micro enterprises have physical access to basic ICT devices such as desktops/notebooks (87%), tablets or smartphones (72%), Internet services (64%) as well as utilizing organizing software such as Microsoft Office (69%).
- It is disheartening to note that 60% of respondents are still using SMS, an indication of a slow progression towards latest mobile apps for faster and better communications.
- In terms of non-adopters, the highest percentage was evident for intranet (68%) and extranet (86%). The non-adopter SMEs may perceive that these technologies are not crucial at the moment, and hence can delay their applications until when necessary or when they are ready. There were small numbers of intranet and extranet adopters in manufacturing, professional services, and trading sectors.

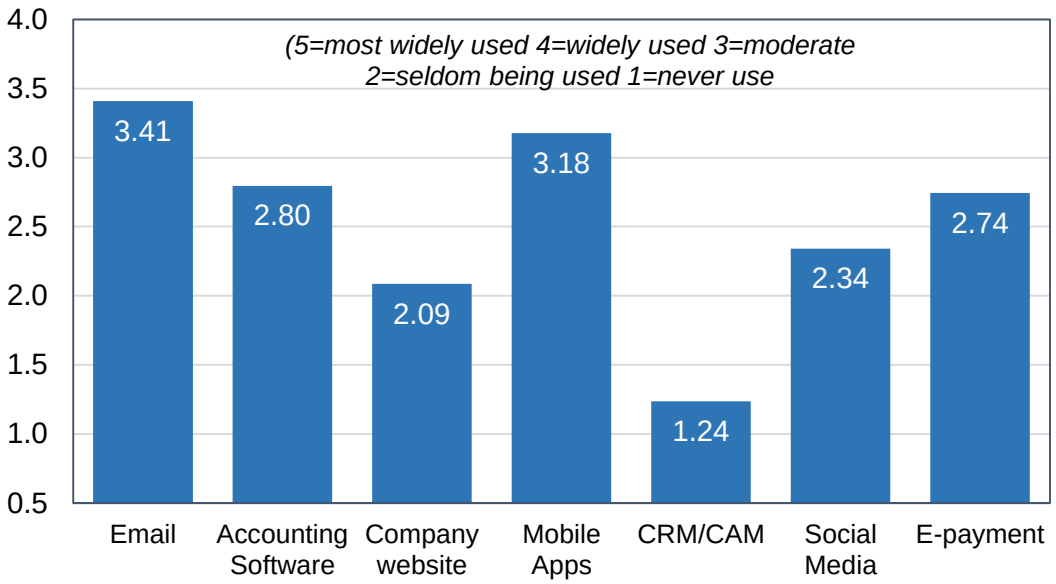
(c) **Usage of ICT applications in business**

- In order to provide an integrated view about the diversity of ICT applications adopted by SMEs, respondents were asked to rate their frequencies of usage for a given list of ICT applications. Seven key applications were listed for consideration under a five-level of frequency rating. Each of the mean value

reflects the frequency of usage as well as measures the extent of each ICT application is beneficial to SMEs.

- We anticipate that SMEs will use the applications more widely and frequently if these applications are perceived to help improving their current business operations or potentially facilitate in driving higher business growth.
- The findings showed that SMEs' e-readiness typically hinges mostly on the use of emails and mobile apps. The mean scores of 3.41 and 3.18 respectively reflect between "*moderate" and "widely used*".

Figure 8: Overall ratings of usage of ICT applications

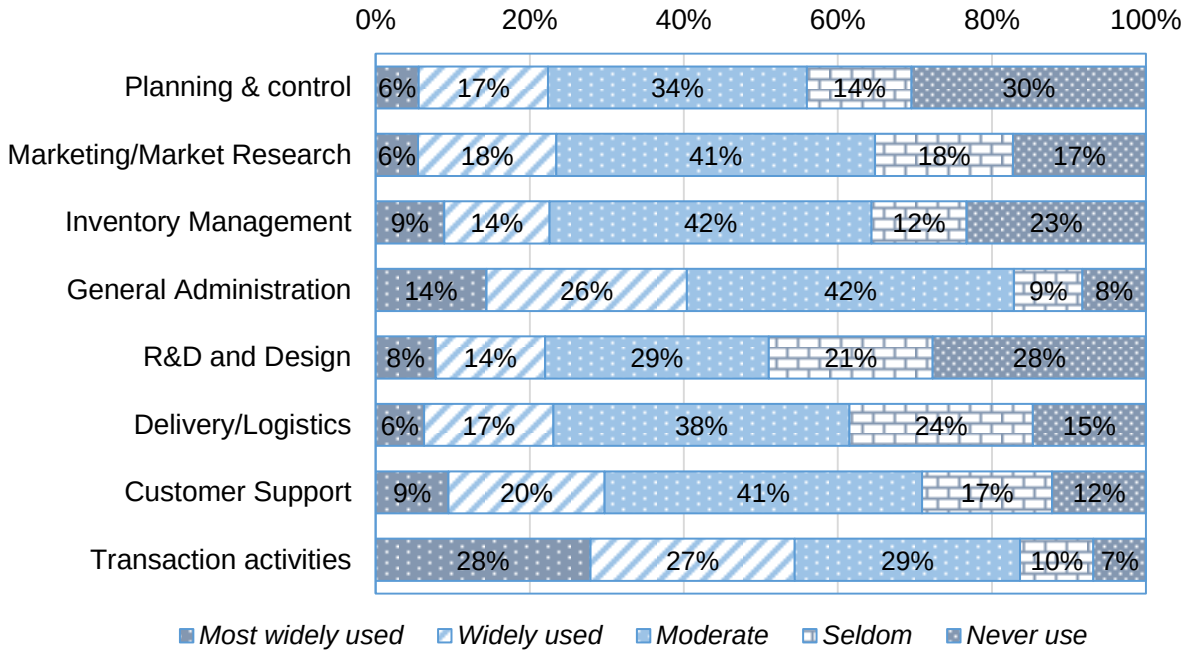


- Interestingly, company website's and social media's scores of 2.09 and 2.34 respectively are below that of common ICT applications for administrative tasks (accounting software and e-payment). This may suggest that SMEs may not have the needed resources to continuously maintaining these applications.
- A low mean score of 1.24 for CRM/CAM application goes to show that such digital application may be too complex or of insignificant value to SMEs, thus not ready to be embraced.

(d) **Where is ICT being embraced within the business?**

- Successful e-readiness is also measured by whether these technologies are adopted across all levels within the firms' multitude business processes, namely production, design, marketing, market research, inventory management, delivery system, administrative, sales support, record keeping, etc.
- The chart below (Figure 9) revealed "*moderate usage*" across the various types of business operations.

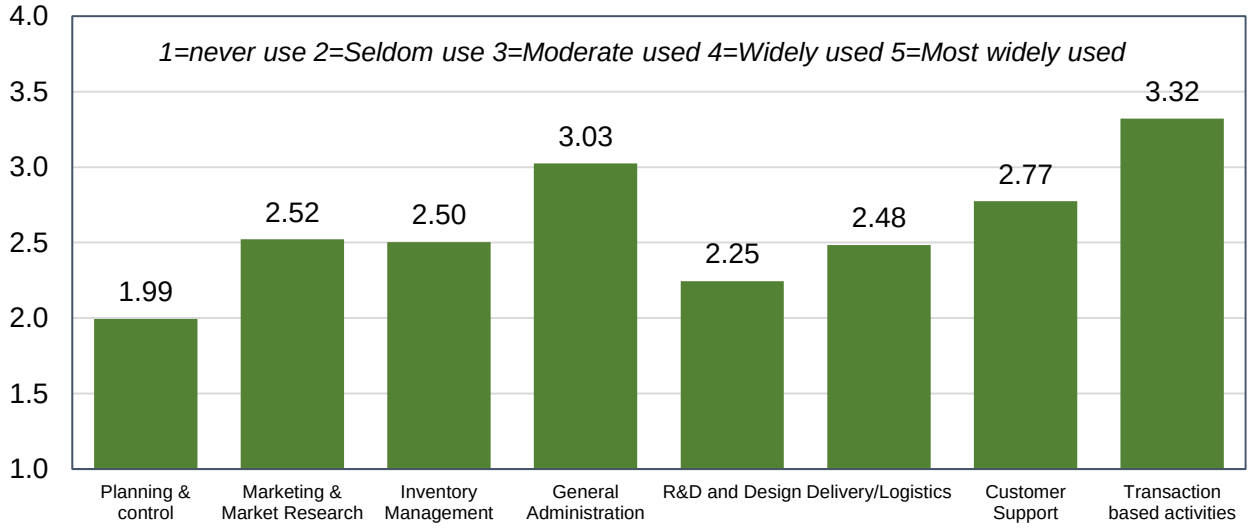
Figure 9: Usage of ICT applications in different operations



(e) **The intensity of ICT being applied within the organisation**

- Overall, ICT is "*most widely used*" in transaction-based activities (such as paying bills, transfer payments, for receivables, etc.) and general administrative tasks (invoicing, payroll, travel booking, etc.) than in any other business operations like planning, design, marketing, inventory management, logistics, etc. (Figure 10).
- For SMEs, digital technology is *"least or never used*" in planning and control (ERP, CAM/CAD), and R&D/Design relative to other operations. This is evident in mean scores of 1.99 and 2.25 respectively.
- SMEs have larger usage of ICT (a mean score of above 3.0) in administration and finance as well as back-office functions (such as organizing orders and preparing invoices).

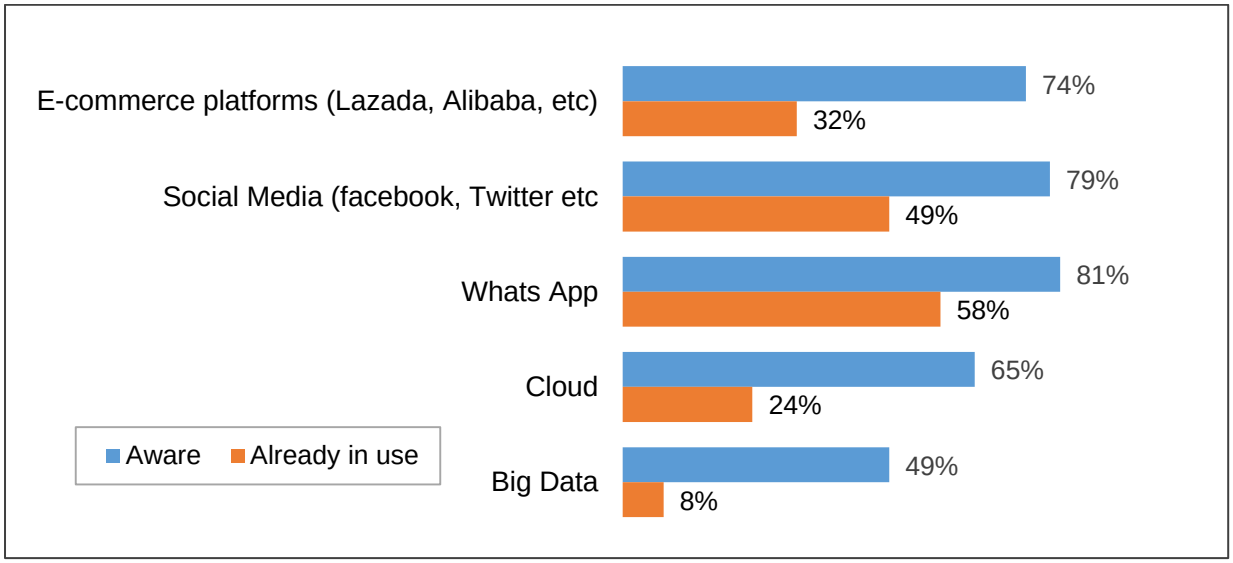
Figure 10: Mean rating of ICT usage



(f) **Organizational readiness in the adoption of digital <u>technology</u>**

- Digital technologies such as e-commerce platforms, social media, Cloud computing and Big Data offer benefits to a wide range of business processes. The SMEs were assessed on their awareness level and actual adoption of these digital technologies (Figure 11).
- The awareness of various digital technologies is high for mobile technologies like WhatsApp, Social Media, and e-commerce platforms. However, the adoption or actual usage fell rather short when compared to their awareness level.
- Awareness and adoption of WhatsApp top the list. In fact, the gap between being "*aware*" vis-à-vis "*already in use*" is the least for WhatsApp technology.
- The existence of gaps is rather wide for some technologies, implying that although SMEs appear to have knowledge (awareness) about them, but there are some indications about their hesitation in the level of adoption.

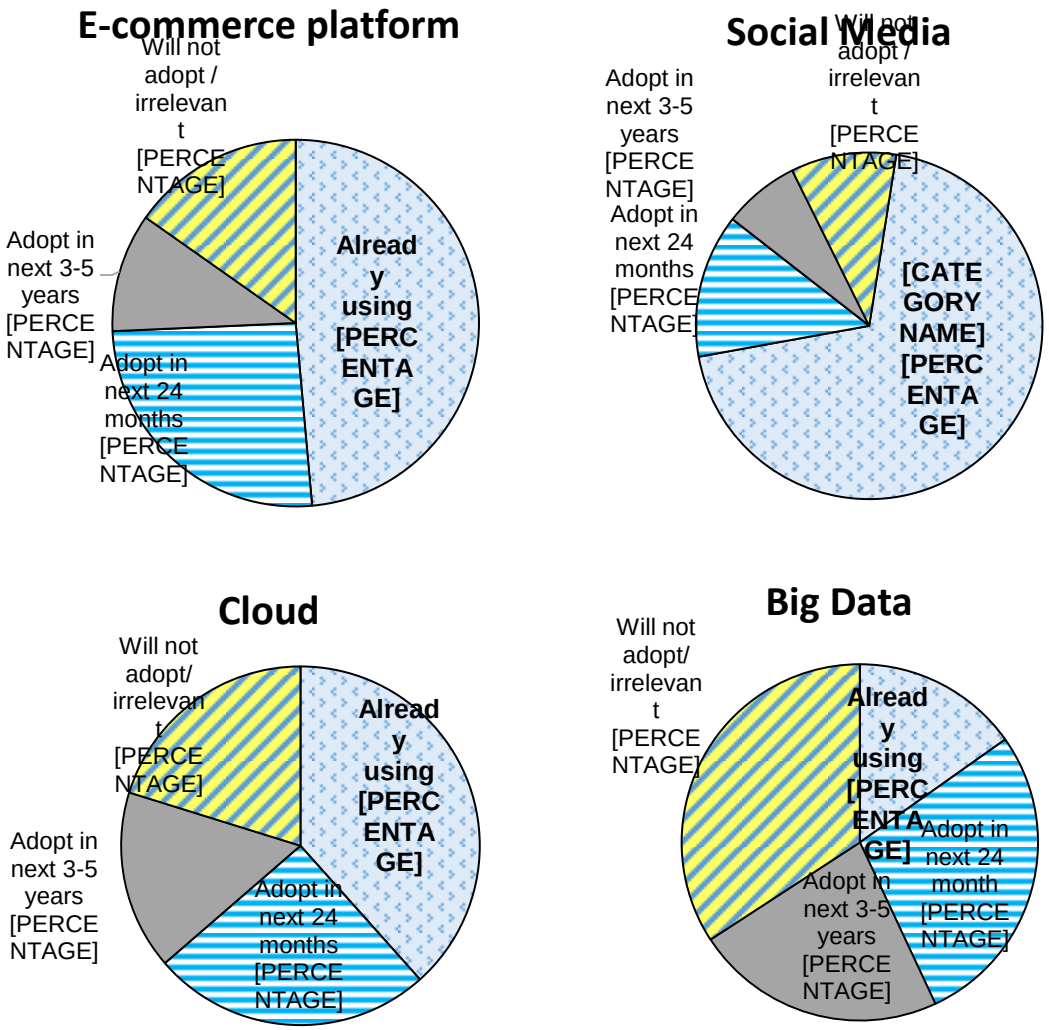
Figure 11: Awareness versus adoption of digital technology tools



- About 70% of the SMEs have already embraced social media (*Facebook, Twitter, Instagram, and WeChat)*. Nearly half of the respondents are already using the e-commerce platforms such as *Lazada, Alibaba, eBay*, etc while 25% of them will adopt next 24 months (

- Figure 12).
- Nearly 40% are already making use the Cloud computing (internet-based servers, storage and applications), reflecting the compelling needs for significant cost savings on infrastructure and IT maintenance. This could also be possibly capitalizing on free versions solutions, comprising emails and storage such as Google drive, Dropbox, etc.
- For Big Data analytics, most SMEs appear to be at a stage where they will consider either adopting at least next 2 years or next 3-5 years. Some may not embrace it unless and until they see the relevance to their businesses.

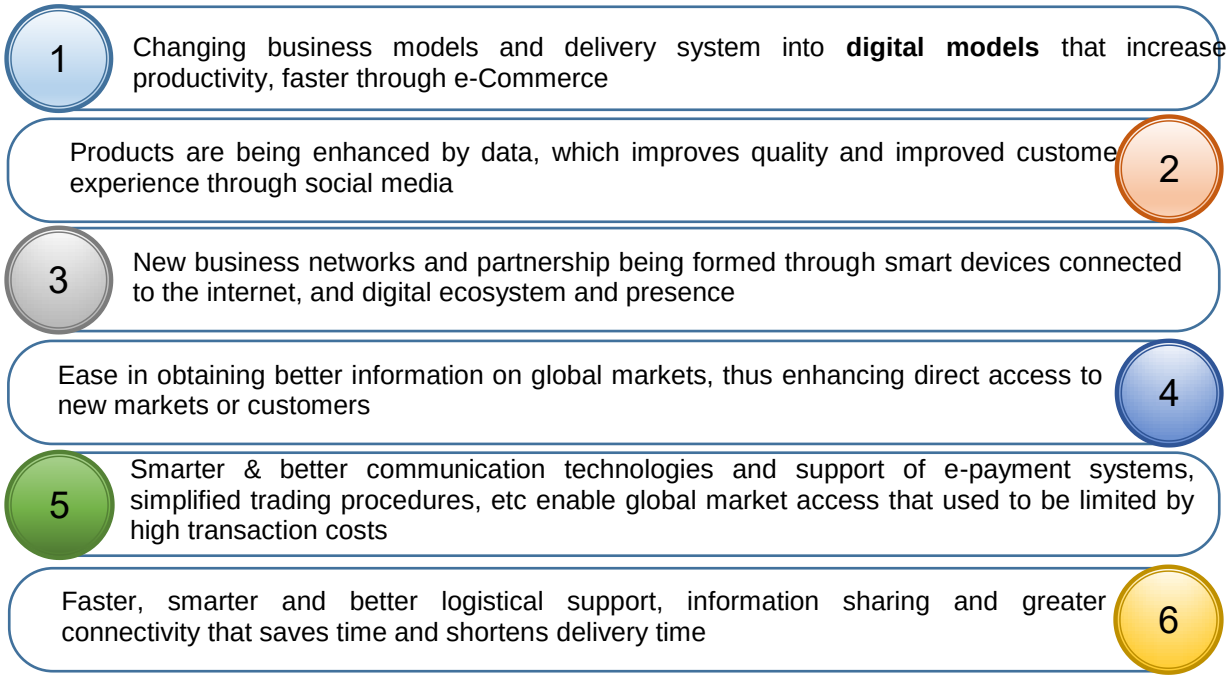
Figure 12: Intent of digital technology adoption



(g) **Impact of ICT adoption on unit/department/organization**

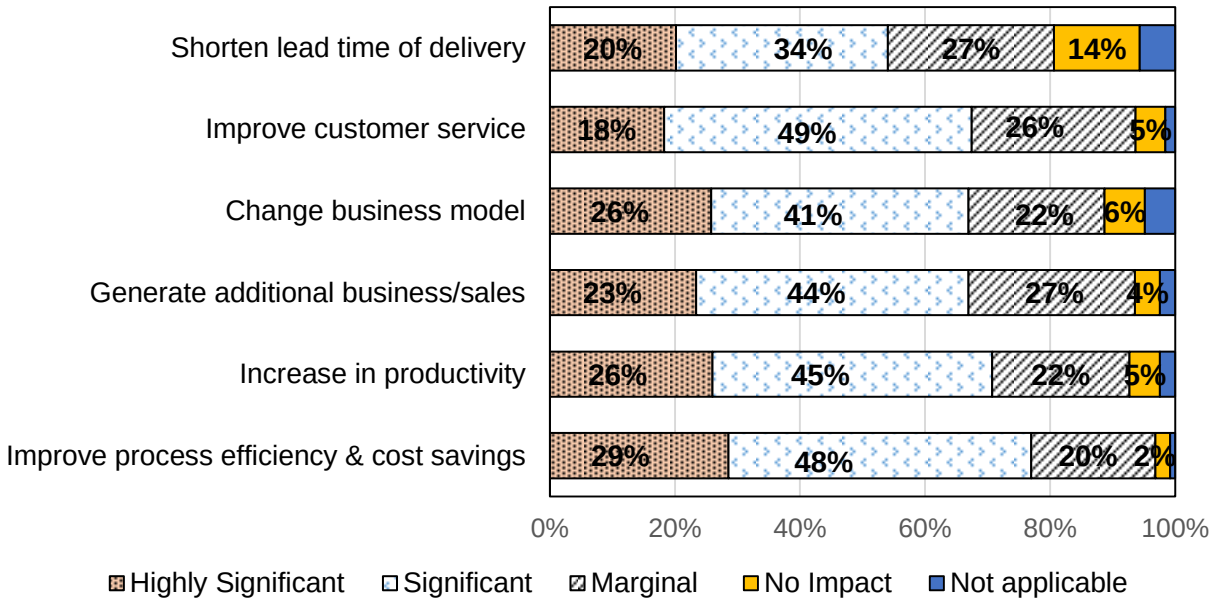
- ICT adoption and its uses are fundamental to improve business competitiveness and to explore new business growth opportunities.
- SMEs were asked the extent to which they agreed the benefits enabled by technologies in the respective units or departments or the whole organization on several dimensions such as productivity, efficiency, service quality, etc. Respondents were asked to rate the benefits as listed in Figure 13 in order of importance to them.

Figure 13: List of benefits that brought along with ICT adoption



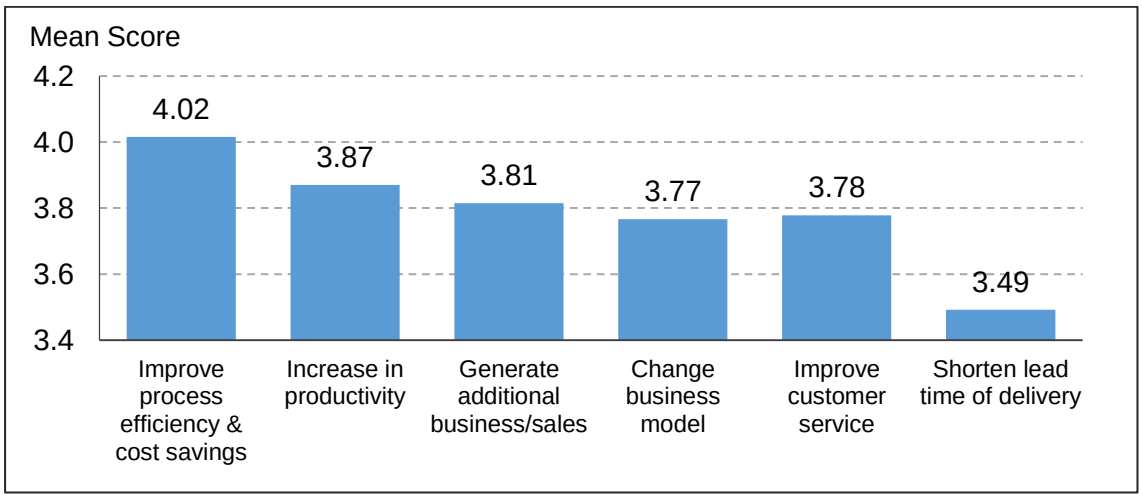
- The survey results indicated some evidence that the adoption of ICT to some extent have yielded impact, varying between "*highly significant, significant or marginal*", depending on the environment where technologies have been applied.
- The improvement in process efficiency and cost savings were ranked as "*highly significant"*, followed by an increase in productivity.
- Improved customer experience was rated as "*significant impact"* while the effect of generating additional business that leads to higher sales is considered "*marginal*". The same goes to reducing delivery time.

Figure 14: Significance of benefits brought by ICT adoption



- The impact of ICT adoption can be conceptualized as the mean score for different dimensions. Going by the mean scores of gauging the impact of ICT adoption on these dimensions, we deduced from the survey results that ICT assists businesses to be more responsive to significant efficiency gains and business opportunities.
- ICT has most profound impact on improving process efficiency and cost savings with a mean score of 4.02 (Figure 15).
- ICT adoption will also drive higher productivity (mean value of 3.87). This in turn not only helps to boost efficiency but also generates higher sales from existing business, which is evident from a mean score of 3.81. In addition, the positive impacts also include re-engineering or creation of new business models.
- The findings may infer further investigation on the impact of specific technologies adopted having differing influences on operations and business success.

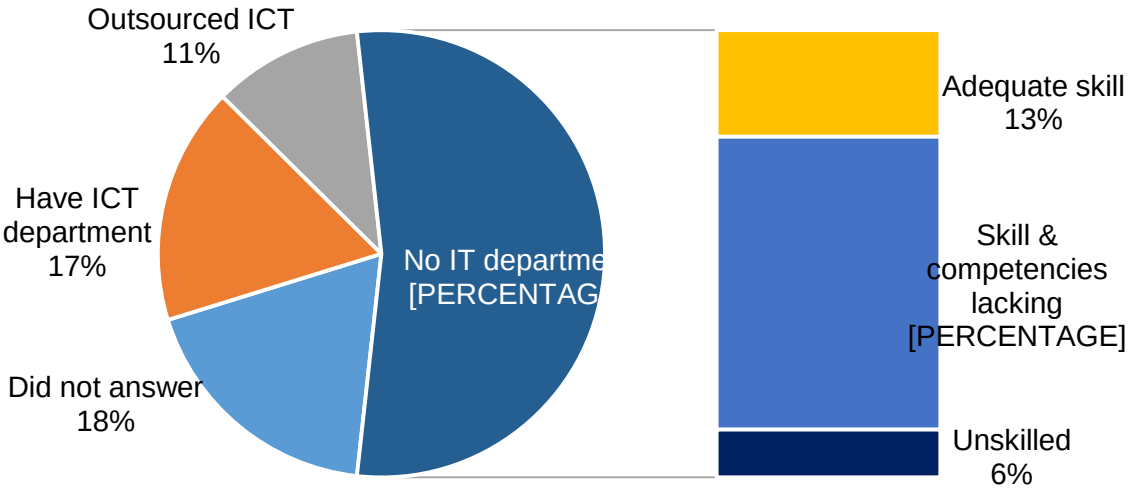
Figure 15: Mean score of Impacts by ICT adoption



(h) ICT knowledge and competencies

- Respondents were asked to indicate whether they have adequate staff to handle ICT matter.
- About 17% of respondents indicated that they have an ICT department while 11% is dependent on out-sourced ICT services. This reflects the flexibility and endeavors to lower ICT costs, and seeking for in-house IT skills.
- The option of out-sourcing is also a solution to solve the problem of unavailability of internal skills and knowledge.
- About 54% of respondents indicated that they do not have a dedicated ICT department but their employees' competencies and skills are adequate (13%).

Figure 16: Level of ICT competency and skill



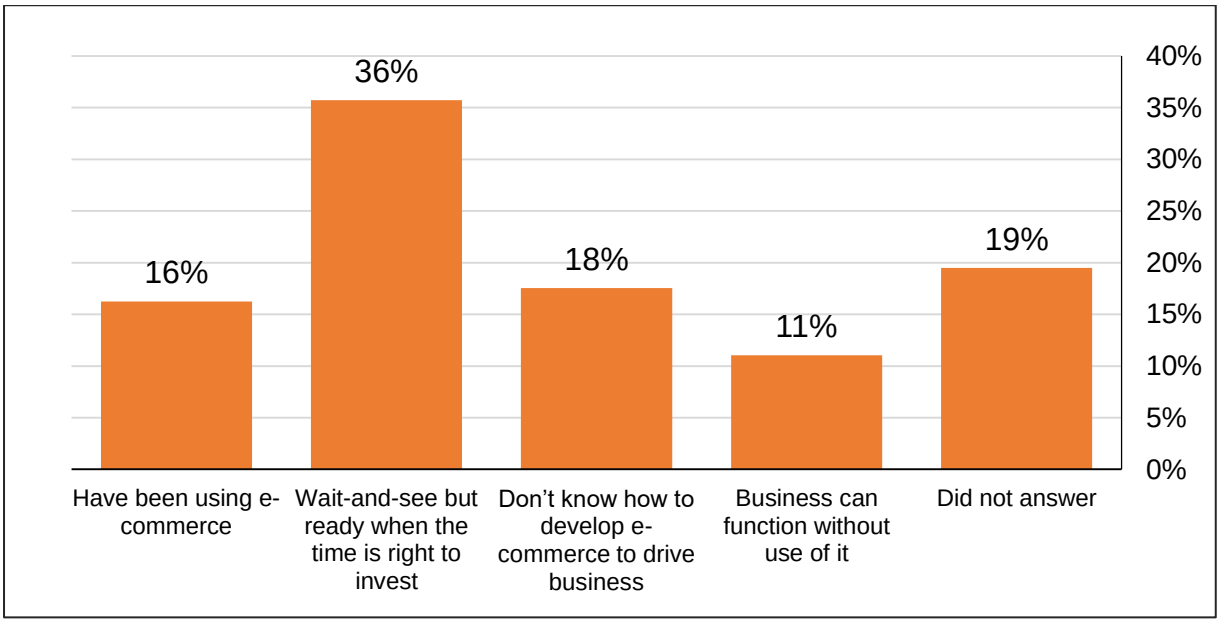
- Nearly one-fifth of companies that do not have a designated IT department indicated that their internal staff have adequate skills to implement ICT technologies. While they may use existing internal resources to implement basic applications, but these skills and competencies may not be adequate as technologies become more sophisticated. Thus, this necessitates either out-sourcing, reliance on off-the-shelf bundled programs/packages or even further training and upskilling.
- Amongst those without IT department, 35% of respondents cited lacking of skills and competencies while another 6% have unskilled personnel, underscoring the urgent need of ICT training for SMEs.

3.2 Section C - Intensity use of digital technology/e-commerce

(a) Current intensity uses of e-commerce/digital technology

- Measuring the intensity of e-commerce is a useful way of gauging the scale of ICT usage and adoption. While SMEs are aware of the technology based business solutions to help growing their businesses, in reality have they already adopted or are they plan to embrace these technologies?

Figure 17: Current intensity use of digital technology / e-commerce



- Some 11% of respondents believe that their businesses can function without the use of e-commerce. Of this group, about 82% of respondents are having "*moderate to high*" level of adoption. This goes to suggest that they either already have current solutions or perhaps do not know how to fully harness these technologies, taking their businesses to the next level of business.
- Only 16% of SMEs reported that they are using e-commerce; 36% have adopted a "wait-and-see" approach and 18% do not know how to develop e-commerce to

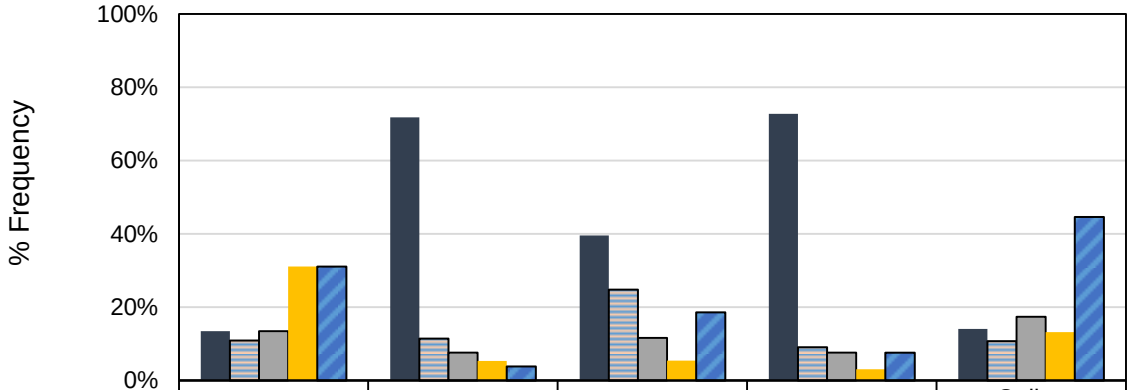
drive their businesses. This probably explained a high 68% of SMEs are having a "*low to moderate*" level of ICT adoption.

- The survey also attempts to evaluate the frequency of companies' access to various standard digital-based means in business operations. The frequency of usage can be influenced by a number of factors such as the stage of their businesses; the type of industry; the number of employees and business size, etc.

(b) **Frequency of SMEs' interfacing with ICT applications**

- Digital communication technologies have taken the lead with at least 72% of respondents use WhatsApp and email/webmail on a daily basis, followed by 65% who utilizes social media either on a daily and weekly basis (Figure 18).
- However, there was very low frequent usage of merchant platforms as indicated by 58% of respondents and company's own website (62%).

Figure 18: Frequency of using with ICT applications



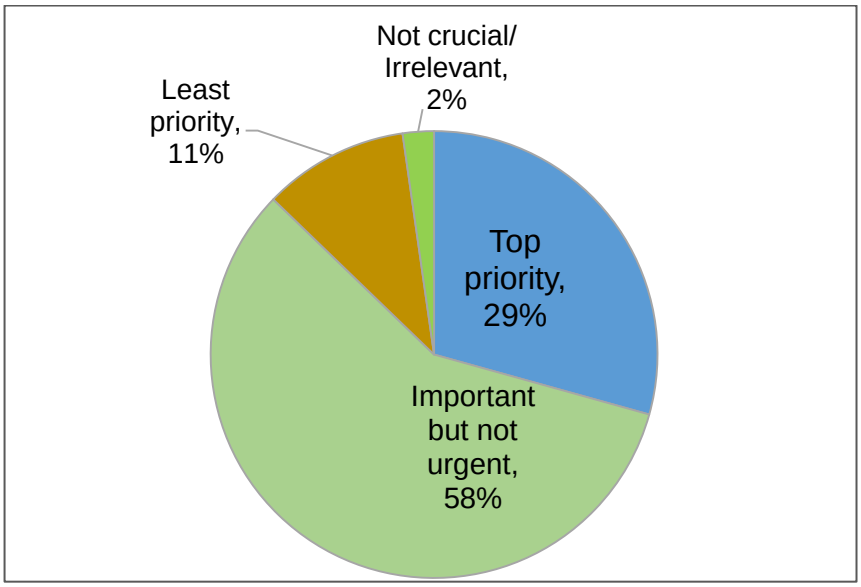
	Company Website	Email/ Web mail	Social Media	WhatsApp	Online merchant platforms
Daily	13%	72%	40%	73%	14%
Weekly	11%	11%	25%	9%	11%
Monthly	13%	8%	12%	8%	17%
Once every 3-4 months	31%	5%	5%	3%	13%
Don't use / Not applicable	31%	4%	19%	8%	45%

- Mobile or Internet-activated communications in the form of company emails or web mails, WhatsApp and social media like Facebook have higher daily usage due to no access restriction; wider social networks, larger users and the speed of delivery mode.
- The survey findings found that some SMEs have less frequent use of and browsing/updating their companies' websites and to some extent on social media. This does not come as a surprise as some believed that having a website did add weight to visibility though not updated periodically. Other possible reason for retaining a website may be related to savings in advertising cost.

- Small businesses have customarily built their clients base on 'reference or testimonial' or by word-of-mouth, and hence, there is no compelling reason to have a website or due to the limited capacity. Nevertheless, this perception is changing as induced by growing importance of mobile website optimization, peers' competition, and the fast pace of digitalization.
- The results also indicated that social media (Facebook) was more frequently used and updated than company's own website, suggesting that it is easier for SMEs to setup, up-keep and manage Facebook than a website.

(c) **Where does innovation/digital technology stand?**

Figure 19: Innovation or digital technology as priority in business



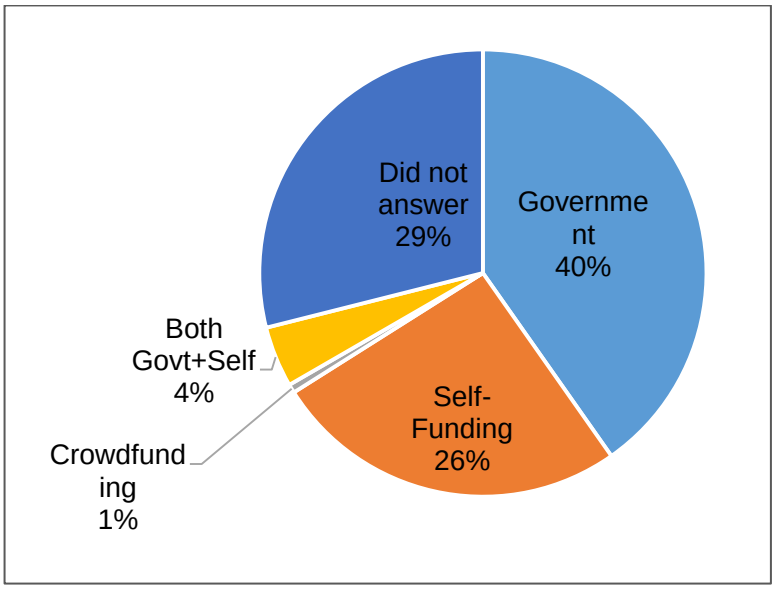
- A total of 58% of respondents ranked innovation and digital technology as "*important but not urgent*" in their business priority. Only 29% placed digital technology as *"top priority"*.
- About 13% of respondents, of which one-third from professional services, think digital technology as either of "*least priority or not crucial at all*". This could be due to the perception that the digitalization process was difficult or that it was not suitable for their businesses; or most micro or small businesses think there is little value derived from digital or online sales.
- High cost of investment and maintenance costs as well as financing constraint may contribute to the low level of embracing digital technology among SMEs.
- With regards to the amount of capital expenditure that SMEs will be willing to spend over the next 24 months, most respondents did not or unable to provide the absolute ringgit amount of capex or as a percentage of total revenue. Only 57 respondents indicated the amount that they plan to invest. Of these, about 60% of

them plan to invest an amount of up to RM10,000 while 12 respondents will invest RM150,000 or more.

(d) **Funding of innovation or digital technology initiatives**

- On their plans to fund the adoption or expansion of ICT, SMEs seem to be reliant on Government agencies (40%) by way of grants for e-commerce adoption or expansion (Figure 20).
- Only 26% of respondents intend to be self-reliant while 4% plans to use both self-funding and government grant. Although 29% of respondents did not disclose their sources of financing, crowdfunding has yet to be an option that SMEs would explore.
- Respondents were asked to indicate their plans on investing in ICT. Regrettably, most respondents did not provide feedback. This goes to show that most companies, especially smallish ones do not have IT budget or too small budget.

Figure 20: Source of funding

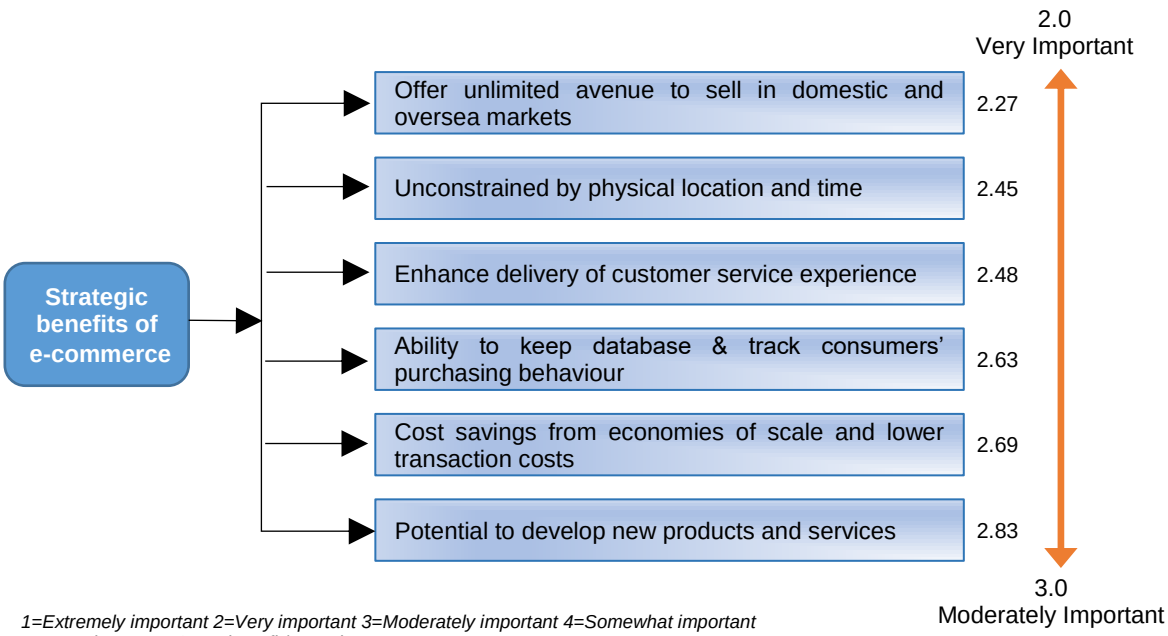


(e) Advantages of e-commerce in order of Importance

- SMEs acknowledged the wide array of advantages in adopting e-commerce. Respondents were asked to rate the advantages of e-commerce in order of importance, with a score of 1 being "*extremely important*" to a score of 6 being "*not relevant or not beneficial*".
- The responses indicated that all these advantages are deem as important as observed from marginal differences in mean scores across the various benefits of e-commerce. Each of these advantages were ranked between 2.27 and 2.83, indicating between "*moderately important"* to "*very important*" (Figure 21).

- Market access was ranked as the "*most important*" with a mean score of 2.27. Businesses believed that e-commerce driven by the Internet would provide more information on global markets and thus, reaching out to broader and direct access to new customers without physical location or time constraint.
- Trading relationships are unrestrained with digital technologies that allow easier communication, data transmission, enhance electronic payment systems.
- E-commerce also helps to improve consumer service delivery, which was ranked as 3rd most important benefit. For example, the digital technology offers platforms (via social media or apps) for consumers to provide feedback, state their preferences, needs, etc. This enables SMEs to stay alert and continue enhancing consumer experience.

Figure 21: Strategic benefits of e-commerce

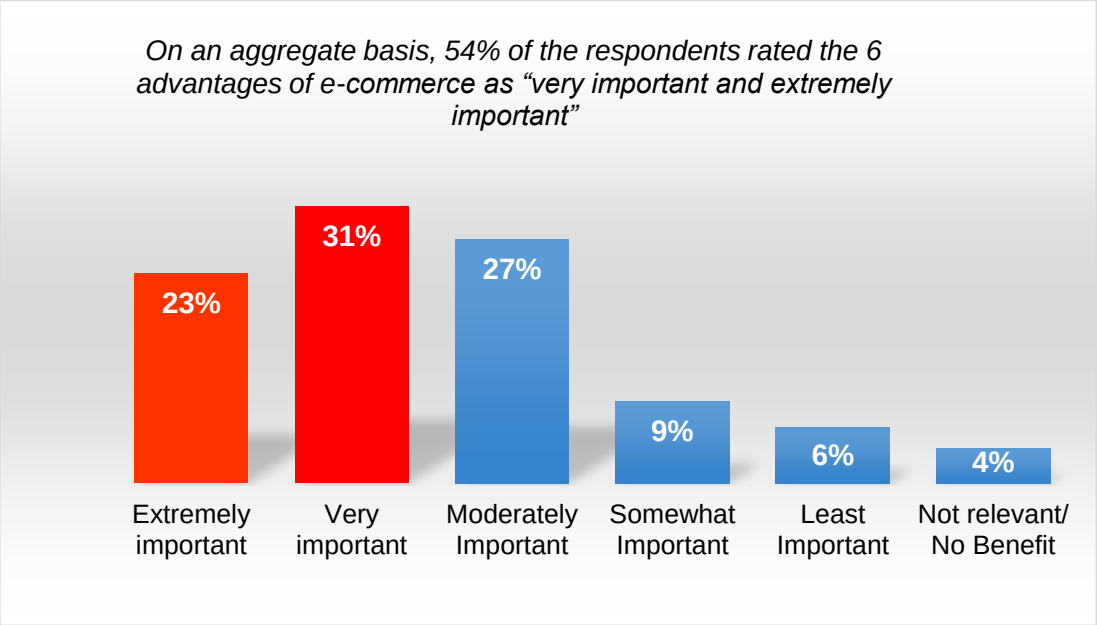


1=Extremely important 2=Very important 3=Moderately important 4=Somewhat important 5=Least important 6=No benefit/Not relevant

- Respondents expect e-commerce to yield gains in the form of lower transaction costs or cost savings from firms' internal economies of scale.
- E-commerce is seen as an effective way of reducing the inventory and selling costs to attract new customers while collecting consumer data is important for making decision on marketing throughout the entire value chain.
- SMEs perceived the potential of e-commerce being the driver of new products and services creation as the "*least important"* with a mean score of 2.83.
- On an aggregate basis, 54% of the respondents rated these six e-commerce advantages being at least "*very important"* while 27% as *"moderately important*" as illustrated in Figure 22.

- In a nutshell, SMEs realize that when operating in the new economy, they can harness on the unlimited market access offered through e-commerce, helping to keep pace with accelerating changes in consumer preferences and tastes. The question is what types of technology to be used and how to unlock the opportunities to reap the highest positive impact on business?

Figure 22: Importance of E-commerce

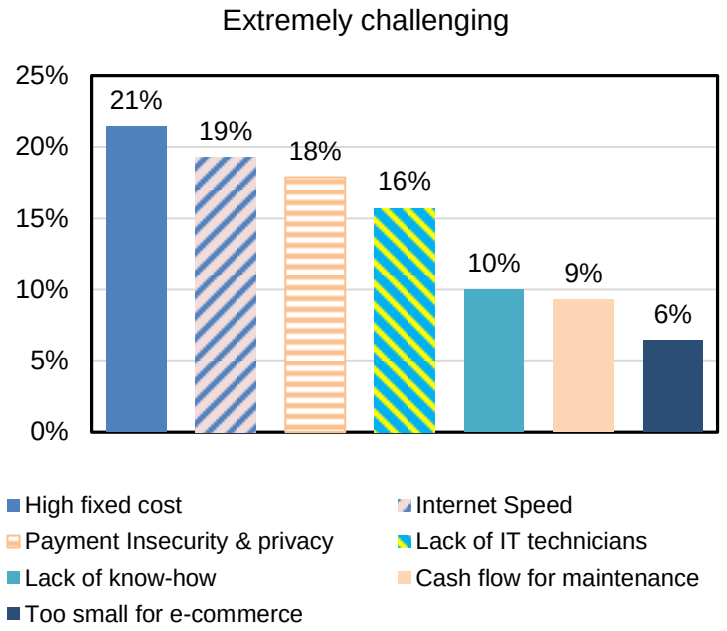


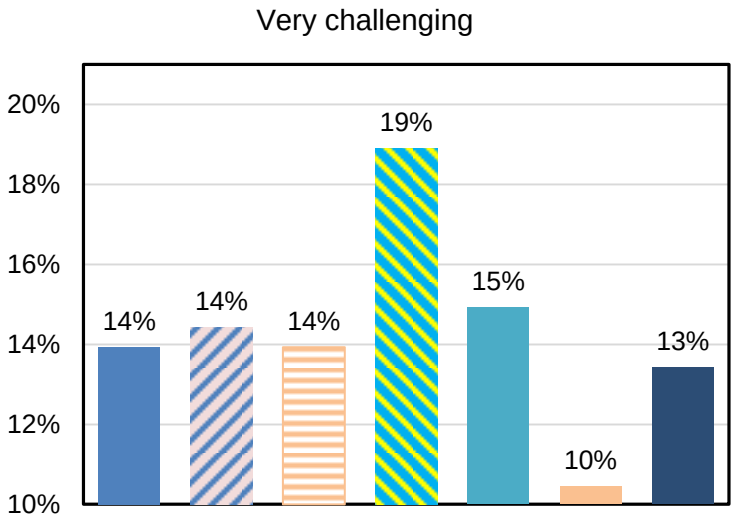
(f) **Challenges faced in integrating ICT with business**

- There are many reasons why SMEs are not proactive in adopting e-commerce or integrating their businesses with digital technology.
- Common barriers cited include: unsuitable for the business; limitation in enabling factors (knowledge, ICT skills, etc.); infrastructure; cost factors; and security and trust factors. Respondents were asked to rate the list of challenges (scores 1 to 6) with 1 being extremely challenging to 6 being least challenging/not relevant.
- The survey results revealed that about 21% of respondents marked technology investment incurring high fixed cost as "*extremely challenging*", followed by slow internet connections (19%) and concerned about cybersecurity/privacy issue (18%) as illustrated in Figure 23. These two factors are conceivably hindering SMEs' initiatives to fully embrace digital technology.
- The factor of competency i.e. lacks of IT technician and know-how emerged as top "*very challenging*" concern to 19% of respondents. This may well explain why some SMEs have yet to successfully integrate digital technology into their business processes, other than for the usual administrative purposes.
- While ICT and e-commerce maintenance and upgrades can be very costly, SMEs appear to be less challenged by this issue, with 9% of respondents finding cash

flow for maintenance "*extremely challenging*" and 10% consider it *"very challenging".*

Figure 23: Barriers faced in integrating digital technology with business





- The extent of barriers faced in integrating business with digital technology/e-commerce challenges is further assessed using top box scores[1] and mean score as illustrated in Table 1.
- It can be gathered from top box and top-2 box scores ('extremely challenging' and 'very challenging') that the issues of high investment outlay; reliability of speed

[1] *Top box and top-2 box scores are very common way of reporting scale questions. Top box refers to the highest rating point on a given scale, while top-two-box include responses to the two most favorable response options. Therefore, top box score is the sum of percentages for the top highest points on a given scale, in this case a scale of 6.*

and infrastructure; security; and competencies emerged as main challenges faced by the respondents.

- Cash flow for maintenance of digital sites, lack of know-how to harness the digital opportunities, and the size of business seem to be relatively less challenging. It may be useful to analyze further how these challenges vary according to the structural size of SMEs or with the type of business sectors.

Table 1: Ratings of challenges based on top box and mean scores

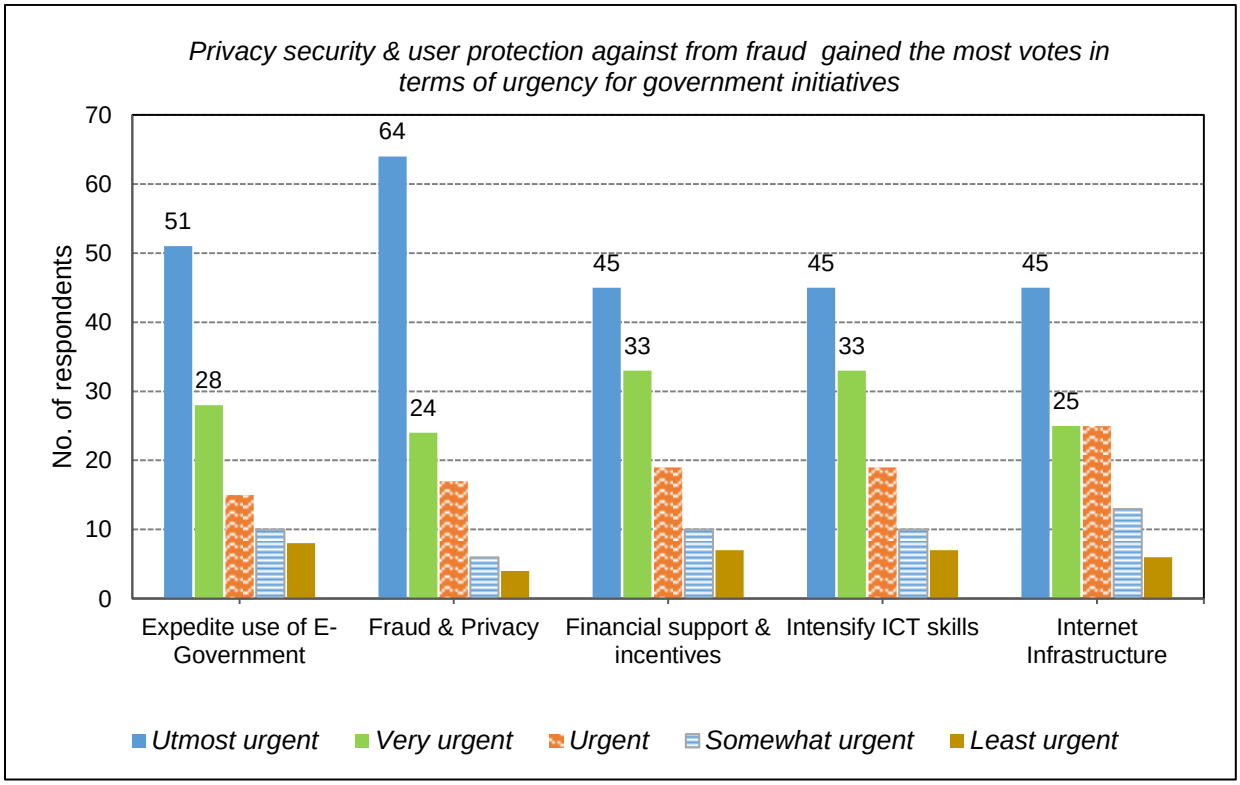
	Top box score	Top-2 box score	Net Top box score	Mean score
New technology investment incurs high fixed cost	25%	48%	23%	2.50
Reliability of internet speed and telecommunication infrastructure	23%	48%	20%	2.65
Risk of insecurity and data privacy	21%	44%	17%	2.65
Lack of knowledge and skills / Lack of IT technicians	18%	49%	15%	2.67
Requires cash flow for upkeep of digital sites / e-commerce	11%	35%	8%	2.94
Lack of know-how to harness the digital/e-commerce opportunities	12%	35%	5%	3.19
Business too small to use e-commerce	8%	26%	-3%	3.50

(g) **Initiatives that Government should pay attention on**

- Respondents were also asked to rank the initiatives that the government should be given attention using the benchmark range scores of 1 to 5, with 1 being utmost urgent to 5 being the least urgent.
- Privacy security & user protection against fraud was voted as the "*utmost essential*" initiative that needs urgent attention. Confidence and trust in the technology security aspect as well as regulatory are crucial to push higher take-up rate by SMEs and consumers.
- Provide adequate financial support or incentives as well as intensifying training programs are important matters that the authorities must deal with immediately to accelerate the digital transformation process.
- Next, is the need to expedite e-Government services, as it not only facilitates on-line services and application processes but also serves as a key enabler expediting the e-readiness of SMEs.

- Internet infrastructure was rated as the "*least priority*" initiative. SMEs viewed the availability of broadband access to be adequate based on their existing ICT applications. But, it is envisaged that future intensity of digital technology will likely be driven by the price, speed and competition in the techno-driven infrastructure market.

Figure 24: Initiatives expected from the Government



3.3 Section D - Awareness and opinion on the establishment of Digital Free Trade Zone (DFTZ)

The Government has launched the world's first Digital Free Trade Zone (DFTZ) outside China, a regional e-hub established together with the Alibaba Group and Malaysia Digital Economy Corporation (MDEC).

DFTZ has three components:

i. **eFulfilment Hub**: To help SMEs / businesses in exporting their goods easily, with the help of leading fulfilment service providers.

ii. **Satellite Services Hub**: To connect SMEs / businesses with leading players who offer services like financing, last mile fulfilment, insurance and other services which are important in cross-border trade.

iii. **eServices Platform**: To efficiently manage cargo clearance and other processes needed for cross-border trade.

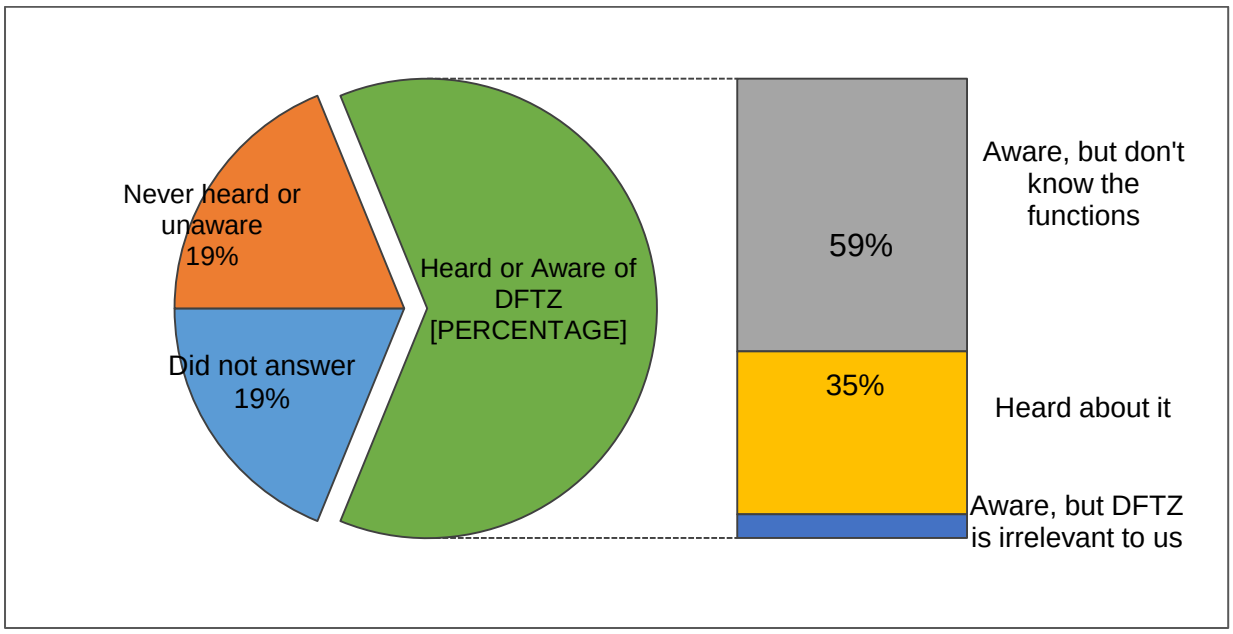
The DFTZ is aimed to provide SMEs with e-commerce gateway infrastructure and ecosystem for reaching out to global markets (Figure 25). The question is how ready are SMEs to leverage on the DFTZ?

Figure 25: Digital Free Trade Zone (DFTZ)

(a) **Awareness about Digital Free Trade Zone (DFTZ)**

- The preparedness of SMEs with DFTZ is gauged through a number of yardsticks: the awareness level of DFTZ; perceived potential benefits; expected challenges or disadvantages to SMEs; and on their business plans in relation to DFTZ.
- Malaysia's DFTZ, an e-hub established together with the Alibaba Group and MDEC, is aimed to provide SMEs with the supportive e-commerce infrastructure and ecosystem to reach out global markets by lowering the trade barriers
- About 62% of respondents have either heard or aware of the DFTZ while 19% reported they have never heard or unaware, and another 19% did not respond (Figure 26).

Figure 26: Awareness about DFTZ



(b) **How SMEs perceived the implications of DFTZ?**

- Respondents were asked to rank the likelihood of the potential benefits that can be provided by DFTZ.
- DFTZ will emerge as a regional e-commerce hub was ranked highest in the top-2 box scores (aggregate of as “most likely” and “likely”); followed next is its role as one-stop digital hub. The likelihood of DFTZ developing Malaysia’s e-commerce to match with global standards came in 3rd as the likely implications of DFTZ (Table 2 and Figure 27).

Table 2: Top-box scores of potential benefits of DFTZ

	Top box score	Top-2 box score	Net Top box score
E-commerce regional hub that will be as gateway for SMEs	27%	64%	25%
One-stop digital hub that promotes integration and efficiency, thus cost saving	27%	62%	24%
DFTZ is an enabler for or e-commerce to match global standards	23%	55%	17%

Figure 27: Perceived impacts of DFTZ

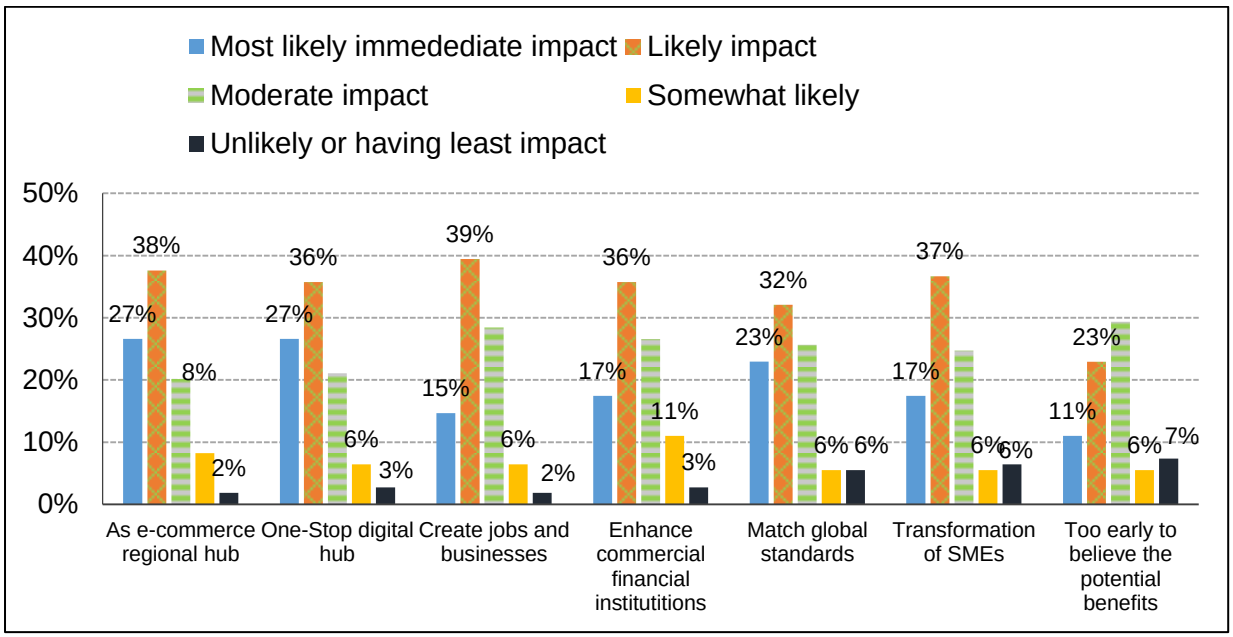
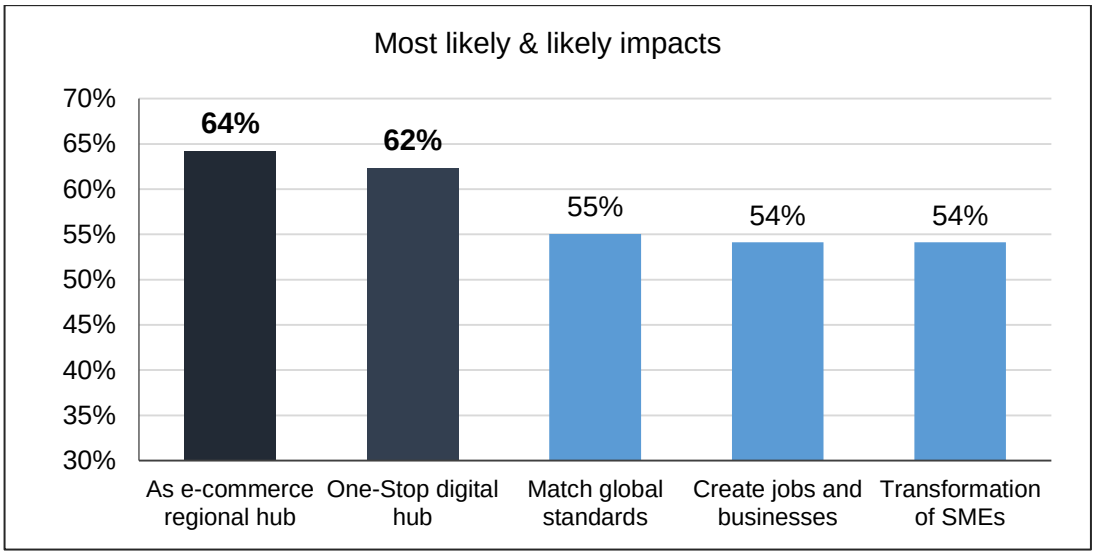


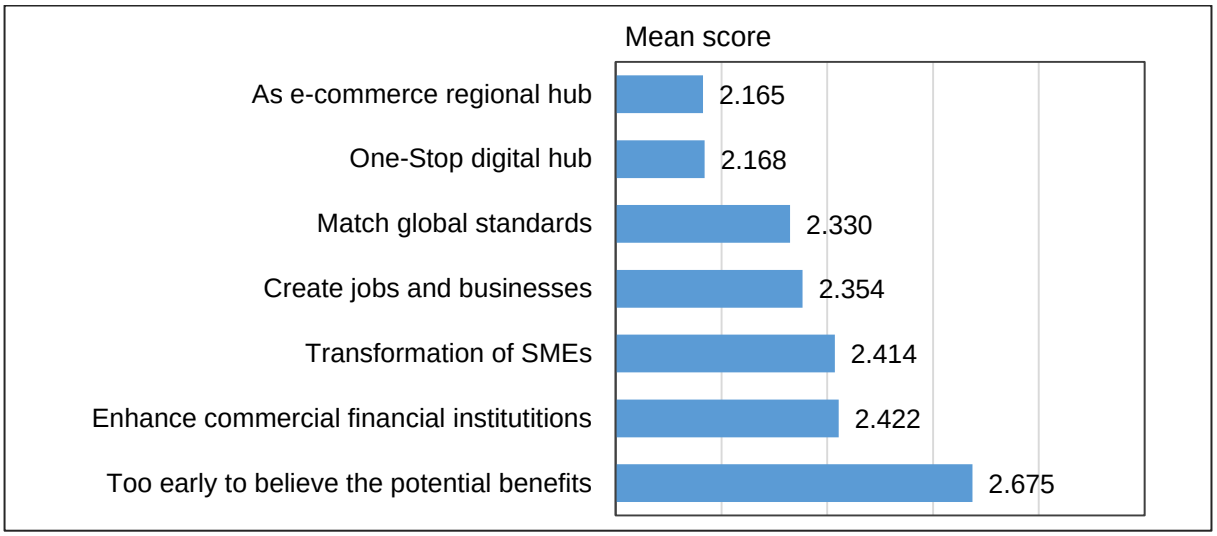
Figure 28: Rankings of impacts from DFTZ



- The respondents assigned higher confidence on DFTZ becoming the regional e-commerce hub and a gateway for SMEs to tap into regional markets (64%), and as one-stop digital hub 62%) compared to any other potential impacts.
- The impact of DFTZ creating many jobs and business opportunities that allow SMEs to grow is ranked relative more likely to expediting the transformation of SMEs from old-fashioned ways.
- Likewise, the respondents were less convinced that DFTZ will further drive commercial and financial institutions to support secured technology for e-commerce transactions. The feedback also showed that respondent tended to be

almost indifferent that it is too early to believe the potential benefits of DFTZ, averaging at a score of 2.675 on a 5-point scale as illustrated in (Figure 29).

Figure 29: Mean score of the advantages of DFTZ



Note: 1 – most likely immediate impact; 2 – likely impact; 3 – moderate impact; 4 – somewhat likely; 5 – unlikely or least impact

(c) **Anticipated challenges faced or disadvantages of DFTZ**

The challenges or disadvantages that SMES will face as result of the implementation of DFTZ were also appraised. Respondents' apprehensions were gauged on a list of challenges using the scale of 1 to 5, with 1 being the most likely immediate impact while 5 being the most unlikely impact.

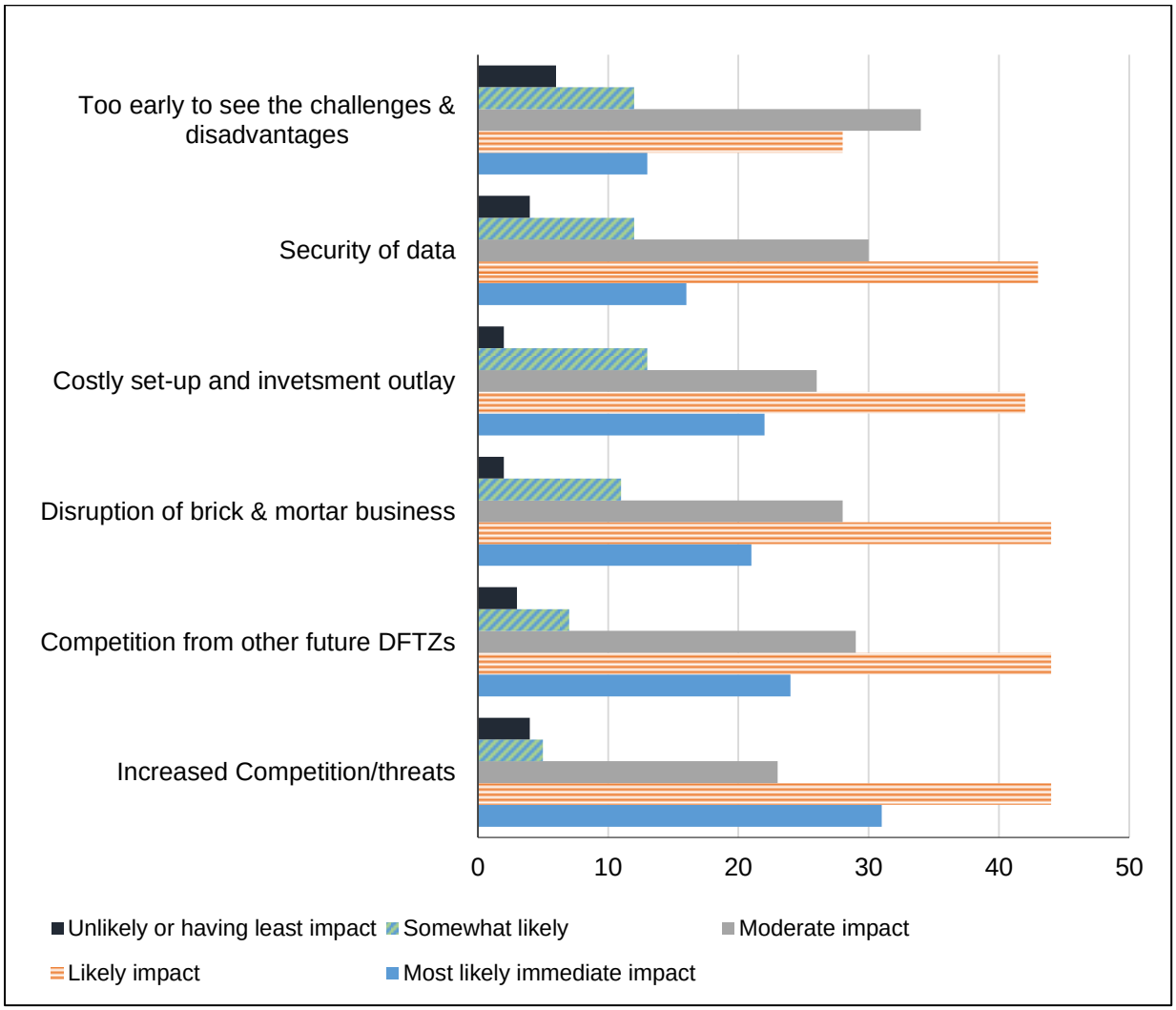
Table 3: Top-box scores of challenges/disadvantages anticipated from DFTZ

	Top box score	Top-2 box score	Net Top box score	Bottom-2 score	Mean score
Increase competition and threats from external sources	29%	70%	25%	8%	2.131
Potentially face competition from other digital FTZs	22%	64%	20%	9%	2.262
Traditional brick & mortar will be disrupted and driven out of business	20%	61%	18%	12%	2.330
SMEs face costly set-up and investment outlays	21%	61%	19%	14%	2.343

Note:
The top-box score is the sum of percentages for the top one or two highest points on the statement intended. By 'top', we assume the point to be the most favorable to respondents (most likely immediate impact). By 'bottom', we assume that point to be the most unlikely impact. This will give a better assessment between the most likely and most unlikely challenges/disadvantages.

- The top-two box score in Table 3 is 70% compared to a bottom-two score of 8%. This means that there are 8.7 times more respondents that rated the likelihood of *"increase competition and threats from external businesses and overseas suppliers*" compared to those who rated unlikely impact.
- Respondents also rated the likely impact of "*competition from other digital FTZs*" as 64% while bottom-two score of 9%, considering that Malaysia is the world's first DFTZ outside China and is seen as a test case for other FTZs in the future.
- On the impact of DFTZ on traditional brick and mortar small retailers, 61% of respondents at the top-two box score felt that traditional retailers will somewhat be driven out of business.

Figure 30: Likely challenges or disadvantages from DFTZ



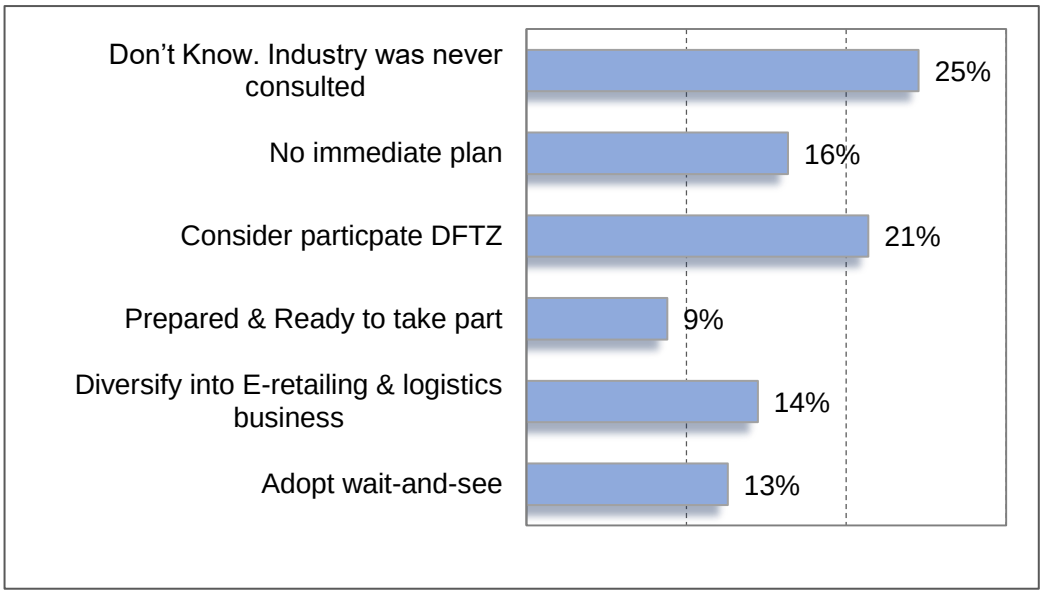
(d) **Future plans in relation to DFTZ**

- The Digital Free Trade Zone (DFTZ) sets an ambitious goal of doubling the SMEs' exporting of goods to US$38 billion by 2025.The ability to achieve this goal lies on

SMEs' participation in e-commerce. The respondents were asked on their future plans in relation to DFTZ.

- Surprisingly, 25% do not know what to do because they were never consulted on the DFTZ (Figure 31), while a total of 16% indicated no immediate plans probably because the DFTZ is not so relevant to their current business model and uncertain about the value-add that it can bring.
- Another 14% will "wait-and-see" because they have yet to be convinced on DFTZ as Malaysia had encountered many challenges in past projects like MSC, Technology Park Malaysia (TPM), Cyberjaya, etc.
- About 21% will consider participating, if provided with incentives and when the timing is deemed appropriate. Only 9% are prepared and ready to take part while 14% of respondents have plans to move into e-retailing or logistic-related business.

Figure 31: Future plans in relation to DFTZ



4.0 Conclusion

4.1 Highlights of survey findings

Despite there are limitations due to smaller sample size, the survey remains a relevant reference and source of preliminary survey and research analysis about the usage of digital and e–commerce technologies by Malaysian SMEs. The usage of ICT or digital technology and adoption of e-commerce in the context of **connectivity, capability and confidence** are summarized as follows:

(a) **Connectivity**

- The **overall level of ICT adoption** among the SMEs surveyed is "***marginally above moderate***".
- **High physical access to basic ICT devices** such as desktops/laptops, and tablets/smartphones.
- The **overall level of readiness** is associated with the current sophistication of IT level; technical know-how and technical-savvy workforce; and financial resources.
- **SMEs' application of technology solutions** are seen applied in **administrative and e-mail communication as well as designated operational processes** (back-end office).
- The **gaps** between **awareness and actual adoption level are apparent**.
- Generally, SMEs **have yet to fully embrace newer technologies** for marketing or enhancing customer relationship, ERP, R&D design, customer analytics, Cloud computing, etc.
- It appears that SMEs were **never felt pressured by rapidly evolving business environment to use advanced technology or e-commerce**. We infer from the survey results that it will be "business as usual", or "business comes first, technology second" mindset.

(b) **Capability**

- There are **many barriers to engaging ICT/digital technology**. For some SMEs, they may have the mindset to adopt ICT but the size and business activity influences the level of adoption.
- Amongst the challenges and limitation factors faced in the adoption of e-commerce were **internal technological capabilities, high fixed cost of technology investment, knowledge, ICT skills, infrastructure, security and trust**.
- Faced with these constraints, some SMEs **were seen less favoured or inclined to adopt ICT** that is deemed not so relevant to their business models. Small businesses would rather keep their business operations small than expand.

- **Low IT literacy and lack of IT technicians** also hindered the adoption of digital technology. Some companies that do not have designated IT department have out-sourced external solutions.
- The **government or respective agencies** need to **look into providing incentives or grants to expedite the embracement of basic digital technologies** among the non-adopters, and to promote the use of newer advanced technologies (Big Data, mobile apps, Cloud computing, etc.) among those who have embraced or already utilizing the basic digital technology.

(c) **Confidence**

- SMEs believed that technology adoption has **most profound impact on raising productivity and improving process efficiency, cost savings as well as generate higher sales and business opportunities.** However, some SMEs remained skeptical about data privacy and protection security.
- SMEs **are not 100% confident** about the **benefits of advanced digital technologies** such as Cloud computing and Big Data. A high number of respondents would adopt a wait-and-see approach or defer the adoption to next 3-5 years, indicating that they are unaware about how this technology is of relevance to them.
- SMEs are **overloading with many applications of ICT** or digital technologies in the market, **distracting them from integrating appropriate technology as new or future business solutions**. Hence, specific support and strategic guidance should be given to SMEs to shift their mindset and ease their concerns about the perceived risks concerning embedded technology into their business models.
- On DFTZ, the respondents expressed **high confidence that it will likely become the regional e-commerce hub** that enables SMEs to grow and expand market frontier. **Only 9% of respondents** are **prepared and ready to take part in DFTZ**. It is therefore, important to create more awareness about DFTZ, getting Malaysian SMEs prepared to come on board this game changer to drive the integration of digital technology with business.

4.2 Key policy recommendations

The survey revealed the present state of SMEs' readiness, awareness and adoption of ICT and e-commerce, but **what is crucial** is for SMEs **to embrace and harness digital technologies or e-commerce to grow their businesses**. SMEs, being an important driver of Malaysia's economic growth and industrial backbone (make up 97% of all businesses; 36% of GDP; 65% of total employment and 18% of total exports) cannot be left far behind in the race of technological advancement and digitalization.

The Government and relevant agencies have put in place the necessary infrastructure and platform to help facilitating SMEs to adopt, adapt and transform their business models in this rapidly digitalized-driven business landscape. **SMEs**, for their part**, need to recalibrate their**

mindset, re-engineer their business strategies to battle it out in this booming e-commerce frontier.

In our assessment, the **challenges of digital technology or e-commerce's adoption process** revolves around **four major dimensions**: **ecosystem centric, technology centric; human capital centric; and organization centric**. Ecosystem for ICT encompasses the policies, strategies, and technologies that make up a technology environment for all stakeholders. Technology centric challenges refer to the struggles faced by SMEs due to adoption process. Human capital centric challenges look into the organizational aspect of readiness and ability while organization centric challenges refer to inadequacy of business model to adopt the digital technology.

We append below **seven areas of policy recommendations** to enhance the e-readiness and adoption of digital technologies.

1. Getting ahead in the connected economy
2. Broadband coverage and internet of speed
3. Capacity building in ICT diffusion and knowledge
4. Facilitation of ICT advisory and coaching services
5. Expedite e-Government
6. Financing gateway
7. Security, privacy and building trust

(1) **Getting ahead in the connected economy**

- We reckon that the Government has formulated several initiatives, namely the **Strategic ICT Roadmap and the Digital Malaysia initiative** under the Tenth and Eleventh Malaysia Plans to drive ICT.
- **ICT ecosystem should not be viewed in insolation** but as part of a holistic economic transformation program, seeking to embed ICT and its application in a wider conceptual framework that takes account of socio-economic, business, government and other dynamics. It encompasses the policies, strategies, processes, information, technologies, and applications that together make up a technology environment for all stakeholders.
- Most importantly, **ICT ecosystem must be constantly reviewed and enhanced** to keep pace with the complexity and dynamic global market place and trends in the digital space. What was then seen as a simple tool for communication, in today's contemporary times, ICT is extended to include new and emergent complexities. Businesses and consumers are also challenged to consider the context of available ICT infrastructure, reliability (delivery, speed and cost), and the constraints of financial, human resources, skills and knowledge to manage and use technology.
- There is a **strong correlation between R&D and innovation capacity**. Hence, both the public and private sectors have to collaborate and foster market-based approach to enhance a country's and private sector's ability to generate, adopt

and diffuse ICT knowledge and expand the innovative capacity. There is a need to **strengthen the coordination among relevant agencies to build a highly supportive ICT ecosystem**. The overall funding framework, including the availability of venture-capital financing to support high-risk start-ups and innovative entrepreneurs.

(2) **Broadband coverage and internet of speed**

- **High-speed broadband** not only is a **critical enabler to support ICT** but also an **important drive of innovation, growth and productivity**. Malaysia continues to have one of the slowest connection speeds across the Asia-Pacific, going by the results from Akamai Technologies' Global State of the Internet Report.
- While Malaysia's average connection speed of 8.9 Mbps as of 1Q 2017 was moderately above the global average of 7.2 Mbps, it is slower compared to South Korea (28.6), Hong Kong (21.9), Singapore (20.3), Japan (20.2), Taiwan (16.9), Thailand (16.0), Vietnam (9.5). In terms of global ranking, Malaysia was ranked no. 62. In terms of 10 Mbps broadband adoption, Malaysia was in 52nd spot with a 32% adoption rate, significantly lower compared to Thailand (72%; 5th placing) and Singapore (72%, 4th placing).
- The Government has taken various initiatives to improve the quality as well as broaden digital infrastructure coverage. However, **it remains inadequate, especially in rural areas**. As such, the enhancement of connectivity covering all states' capital and selected high impact growth areas through the deployment of High Speed Broadband 2 (HSBB2) and Sub-Urban Broadband (SUBB) must be expedited.
- Issues connected to boosting **high-capacity telecoms networks in terms of reliability, efficiency of services, affordability and coverage** must be continuously being addressed and enhanced. The Malaysian Communications and Multimedia Commission (MCMC) must constantly reviews and enhances its role as a better regulator; step up regulatory enforcement and rules to shake up Internet quality; foster competition between firms; and safeguard and protect users' rights.
- **Network coverage, Internet infrastructure and the cost of accessibility** are equally important. It's about the quality of service, capacity, availability and speed of broadband. Hence, this necessitates the stepping up of collaboration with providers and users on connected devices, introduction of faster and reliable mobile networks as well as the upgrading of existing networks in order to meet higher business and consumer demand. Although our digital infrastructure has been continuously improving, the coverage, speed and competitive pricing would help to encourage ICT adoption by small firms.
- The Government should **keep low entry barriers to promote competition in mobile network and Internet infrastructures** so that SMEs have access to the services or digital infrastructure at a low and competitive cost of broadband access, and hence lowering transaction costs.

(3) **Capacity building in ICT diffusion and knowledge**

- **Building capacity to increase diffusion of ICT, enhancement skills and knowledge as well as entrepreneurial competencies**. It is vital to close the digital gaps in order to enhance SMEs' capacity to reap the business opportunities of e-commerce.
- Amongst the initiatives to improve the ICT adoption of SMEs **include intensify public-private collaboration to reduce ICT skill gaps and develop a structured ICT readiness enhancement program for SMEs**. Given the low participation of SMEs in e-commerce activities, these initiatives are expected to drive more SMEs embarking on e-commerce, adopting digital technologies to integrate with marketing networks and channels. To enable SMEs leverage ICT applications in business solutions, programs must be crafted to ensure the availability of quality data centres and cloud services.
- **Human resource development**. SME owners and their employees do not need specialist programmers to build e-commerce business, but what they really need is the basics on how web technologies work, i.e. online communication tools, social media; and photo editing and fundamental graphic design skills. Thus, education policies for improving such skills and entrepreneurial abilities are relevant and should be inculcated starting from the secondary education level. Public policies program must be tailored towards upskilling and reskilling of ICT workforce, including institutionalize standards and ICT professionals and certification recognition to ensure adequate supply of industry-ready ICT workforce in the market.

(4) **Facilitation of ICT advisory and coaching services**

- SMEs need the **necessary ICT training and advisory support services**. It is suggested that the relevant agencies, together with the industry associations draw up SMEs mentoring programs and experts' advisory panels via conducting awareness workshops on e-commerce, e-business and ICT applications. In addition, setting up ICT centres and labs to provide hands-on training and advisory services.
- The strategic purposes underlie the adoption of e–commerce differs from one SME to another (increase efficiency, expansion of markets, marketing of new products or services, improvement of the quality, etc.). In practice, some of these technologies already used by certain groups may not be suitable for small firms. Therefore, **introducing tailored easy-to-use e-commerce solutions for small-scale businesses** may be far more appropriate and would require more efforts supporting and mentoring them, i.e. moving from generic project scouting to selected niches.
- With the establishment of DFTZ, **the Government** could **collaborate with Alibaba to draw up training programs on key essential areas such as**

products posting and showcase, financing, delivery and logistic solutions, etc. These can be integrated throughout the value chain to reap total benefits. Through working with SMEs on firm-level advisory services can provide key insights to ensure the successful implementation of e-commerce. The initial plan of targeting 1,500 SMEs on- board the DFTZ must be guardedly identified to ensure the success and sustainability of the DFTZ idea.

(5) **Expedite e-Government**

- The development of e**-commerce can be expedited through the government's initiative**. The authorities at the federal, state and local government levels should expedite and enhance the e-delivery of services.
- The initiatives and programs under **Malaysia's National eCommerce Strategic Roadmap must be well executed** with impactful outcomes.
- **Business related transactions with the government ministries and agencies** such as business registration, taxation, employees-related transactions; data collection; government procurement; and advisory services **can be made more interactive, retrievable from Internet and transmitted digitally**.
- The move towards **full-fledged e-government services will create positive environment for businesses in terms of efficiency and delivery services**. It will have positive spillover on the adoption and building the trust and security on the usage digital technology by small firms. A more digital-ready population can yield faster orientation towards new wave of innovation as the Internet of Things (IoTs) deepens.

(6) **Financing gateway**

- There are **SMEs** that have products (services) that are ready to cross-border, but **may be facing problems of financing investment in the digital market**. These comprise initial installation of technologies, human resources as well as other financial outlays such as logistics, market research, advertising, etc. which can be considerably costly.
- In efforts to **ease the upfront cost of ICT investment**, **fiscal tax incentives, including capital and equipment allowances should be considered**. In addition, a Facilitation Fund, including the provision of one-off grant can be managed through MATRADE and SME Corp. Presently, the financial assistance scheme as provided under eTrade can be further spin-off to bigger projects for SMEs to help building their visibility and reputation, particularly in developing their niches in lead markets. eTrade currently consisting of RM5,000 financial assistance for Malaysian-owned companies to showcase Made in Malaysian products/services or Malaysian brands.
- The **financial support can also focus on pre-commercial activities or ready-to-export for groups of small firms** as opposed to a single firm. Individually, SMEs may be unable to capture market opportunities in terms of large regular

quantities or meeting standards. It is believed that working in groups will encourage small local players to work more closely while leveraging on the economies of scale. Developing within each of the clustering initiatives can build the inherent strength that permits upscaling at faster pace.

(7) **Security, privacy and building trust**

- **Small firms** are **more vulnerable to problems related to trust, data security and confidentiality** than the large companies. Faced with relatively less equipped, they have to establish the right level of confidence and trust in their e-commerce activities.
- **Credible legal framework** must be put in place to ensure **effective consumer protection legislation, enforcement institutions and redress systems for the use of digital technologies**. It is fundamental important that SMEs have access to security infrastructure and technologies, e.g. security certificates, digital signatures, data storage, online customer testimonials, payment solutions, flow of foreign exchange, e-commerce laws, etc. at affordable and low compliance cost. Security is also integral to the adoption of e-payment systems. Thus**, information security and integrity should be adequately address** as part of overall policy actions directed to expedite the development of e-commerce among the SMEs.
- Policy makers advocating for the transformation to e-commerce **should not neglect the need to review and revise laws (**e-contract, e-signature, cross-border e-payment and currency, cybercrime, etc.) to enable a conducive environment for e-payment and e-commerce.

Appendix 1: Survey questionnaires

SME e-readiness in Malaysia

Information and communications technologies (ICTs) are transforming businesses and harnessing new opportunities via techno-innovation, expanding into new markets and driving competitiveness. Digital revolution saw the advent development and new applications in the likes of broadband, cloud services, Big Data analytics, the Internet of Things (IoTs) and Artificial Intelligence (AI), which are the key enablers for businesses to tap unlimited digital opportunities to have a wide reach of customer base in both domestic and oversea markets via e-commerce. Given the immense digital potential, SMEs must embrace and be ready to leverage on digital technology to deliver services and grow their business. Looking ahead, the announcement of the Digital Free Trade Zones should be a game changer to drive the integration of digital technology and business. SMEs can play a pivotal role as both consumers and facilitators of the digital economy. What are the barriers and challenges faced as well as supports needed to nurture SME champions to double the nation's e-Commerce growth?

This survey aims to examine SME use of emerging ICT and explores their participation in the digital economy in the context of connectivity, capability and confidence. It will assess the critical issues and problems encountered by SMEs in the adoption of adopting e-commerce/digital business. Digitalisation brings many challenges, particularly the disruption of traditional or existing business models. The survey also seeks to identify the gaps and explore how best these barriers can be overcome to mitigate the challenges ahead.

We seek your cooperation to return this duly completed survey questionnaire **latest by 31 May 2017** to serc@acccimserc.com or by fax to 03-4260 3118. Should you have any enquiry, please contact **Mr. Goh Kong Jun** or **Mr. Lee Soon Thye** at **(603) 4260 3116 / 3119**.

******If you have multiple businesses, please refer to the principal business/sector when answering these questions.***

SECTION A: BUSINESS BACKGROUND

A1. Type of industry or sub-sector

- ☐ Logistics
- ☐ Construction
- ☐ Trading (imports & exports)
- ☐ Wholesale & retail
- ☐ Hotel & restaurant
- ☐ Property development
- ☐ Manufacturing *(please specify type)* _____
- ☐ Agriculture
- ☐ Mining
- ☐ Professional service _____
- ☐ ICT *(please specify type)* _____
- ☐ Others *(please specify)* _____

A2. Indicate % breakdown of total sales / revenues derived from:

Domestic market: _____ % Foreign market: _____ %

A3. Size of business operation

Manufacturing sector:

- ☐ Micro (Turnover less than RM300k)
- ☐ Small (RM300k to < RM15mil)
- ☐ Medium (RM15mil to ≤ RM50mil)
- ☐ Large (Turnover more than RM50mil)

Services and other sectors:

- ☐ Micro (Turnover less than RM300K)
- ☐ Small (RM300k to < RM3 mil)
- ☐ Medium (RM3 mil to ≤ RM20mil)
- ☐ Large (Turnover more than RM20 mil)

A4. Number of **fulltime** employees:

☐ < 5 ☐ 5 - 29 ☐ 30 - 74 ☐ 75 - 199 ☐ 200 and above

A5. Share of total employment:

Local employees: _____ % Foreign employees: _____ %

A6. Company ownership / structure:

☐ Bumiputera ☐ Non-Bumiputera ☐ Joint venture, please indicate ownership:

Local: _____ % Foreign: _____ %

SECTION B: LEVEL OF ICT ADOPTION

B7. Please circle what best describes your company's current level use ICT

Overall current use of digital technology

1	2	3	4	5
Highly advanced	*High*	*Moderate*	*Low*	*None*

B8. Please tick (✓) the following ICT devices or tools in use in your organization.

- ☐ Desktop/Laptops/Notebook, etc
- ☐ Tablets or Smartphones
- ☐ SMS
- ☐ Organizing tools *(Excel, Word, etc)*
- ☐ Internet service
- ☐ Intranet
- ☐ Extranet
- ☐ Others *(please list)* _____

B9. How often are these ICT applications being used in your business?

Please rate all the ICT tools being used in your company using the scale below:
5 - Most widely used; 4 – Widely used; 3 Moderately used; 2 – Seldom being used; 1 – Never use

- ☐ E-mail
- ☐ Accounting software
- ☐ Company website
- ☐ CRM/CAM (*Customer Relationship/Acquisition Management)*
- ☐ Social Media (Facebook/Twitter,
- ☐ E-banking / e-payment services

☐ Mobile Apps/ WhatsApp ☐ Others (please list) _____

_____

_____

B10. My company is using ICT in the following operations:

		Never use	*Seldom use*	*Moderate Use*	*Widely used*	*Most Widely Used*
a	Planning & control – *e.g. Enterprise Resource Planning (ERP); computer aided manufacturing (CAM); computer aided design (CAD), etc*	1	2	3	4	5
b	Marketing, including Market Research	1	2	3	4	5
c	Inventory Management	1	2	3	4	5
d	Administration (*Invoicing, payroll bank-in, travel bookings, etc*)	1	2	3	4	5
e	R & D / Design	1	2	3	4	5
f	Delivery (logistics, courier, etc)	1	2	3	4	5
g	Customer service & client servicing	1	2	3	4	5
h	Transaction based (*pay bills, transfer of payments including receivables, etc)*	1	2	3	4	5

B11. Please tick (✓) the following statements that best reflect your company's awareness and adoption of each of the following digital technology tools.

		E-commerce platforms*	Social Media**	WhatsApp	Cloud	Big Data
a	We are aware of these technologies					
b	Will consider adopting them next 24 months					
c	Will consider adopting them in 3-5 years					
d	These technologies are already in use					
e	Will not adopt these technologies					
f	These technologies are unnecessary					

** E.g. Lazada, Superbuy, 11Street, Lelong.my, Mudah.my, eBay, Alibaba etc*
*** E.g. Facebook, WeChat, Twitter, Google+, Instagram, etc*

B12. To what extent the ICT adoption impact your unit / department / company?

		Highly significant	Significant	Marginal	No impact	Not applicable
a	Improve process efficiency & save costs					
b	Increase productivity					
c	Generate additional business/higher sales					
d	Our business model has changed					
e	Improved customer service experience					
f	Shorten the lead time of delivery					

B13. Level of ICT knowledge and competencies

☐ We have an ICT department ☐ No IT department. Skill & competencies of our staff is:
☐ We out-sourced these services → ☐ Adequate ☐ Lacking ☐ Unskilled

SECTION C: THE INTENSITY USE OF DIGITAL TECHNOLOGY / E-COMMERCE

C14. Current intensity uses of E-commerce / Digital Technology

☐ Not using. My business can function without the use of e-commerce or digital technology
☐ We don't know how to develop e-commerce to drive our business
☐ We will wait-and-see, but we are ready when the time is right to invest
☐ We have been using e-commerce for _____years
→ E-commerce transactions as % of total sales revenue: _____%
→ Type of e-commerce: ☐ B2B ☐ B2C ☐ B2G ☐ C2C ☐ Others

C15. How frequent do you update and make use of the following websites:

	Daily basis	Weekly basis	Monthly	Once every 3-4 months	Don't use/ Not applicable
a Update/re-design company website					
b Company E-mail / webmail (*Gmail*)					
c Social Media - *Facebook / Google / Twitter*					
d WhatsApp					
e Online platforms, *e.g. Alibaba, Lazada, ebay*					
f Others (*please specify*)_____					

C16. Please <u>rate 1-6</u> the advantages of e-commerce in order of importance, with
1= Extremely important; 2= Very important; 3= Moderately Important; 4= Somewhat important; 5= Least important; 6= Not relevant / No benefit

a Offer unlimited opportunities to sell products in domestic and oversea markets ☐
b Boost current sales that were constrained by physical location and travel (time) ☐
c Potential of cost savings from economies of scale, and lower transaction costs ☐
d Potential to develop new products and services ☐
e Able to keep a database and track consumer purchasing behaviour ☐
f Can improve on customer service delivery; easier means of communication, etc ☐

C17. These are challenges/barriers that may be faced in integrating businesses with digital technology / e-commerce. *Please <u>rate them 1 – 6</u> in order with 1= being extremely challenging; 2= Very challenging; 3=Moderately challenging; 4= Somewhat challenging; 5= being least challenging issue; 6= Not relevant / Not challenging*

a New technology investment incurs high fixed cost ☐
b Require cash flow to upkeep these sites / e-commerce ☐
c Insecurity - risk of security of payment and privacy of data ☐

d Lack of knowledge and skills to do so / Lack of IT technicians ☐

e Reliability of internet speed and telecommunication infrastructure ☐

f Business is too small to use e-commerce ☐

g Lack of know how to exploit digital/e-commerce opportunities ☐

C18. Is innovation/digital technology a priority for your business?

☐ Top priority ☐ Important but not urgent ☐ Least priority ☐ Not crucial / Not relevant

C19. Plans on ICT adoption or expansion

a Amount of capital expenditure in next 24 months: RM_____

b Investment in ICT equipment as % of total revenue: _____%

C20. How do you plan to fund your E-commerce adoption or expansion in C19? *May select more than*

a Grant or assistance from government agencies ☐

b Self-funding ☐

Why self-funding? _____

c Other sources (*please specify*) _____

C21. Rank 1 - 5 the following initiatives that the government should take heed of, *with 1 being utmost urgent and 5 being the least urgent.*

☐ Expedite the use of e-government services

☐ User protection from fraud and privacy

☐ Provides appropriate financial support and incentives

☐ Intensify ICT-related skills and competencies by intensifying ICT-related skills & knowledge

☐ Provides internet infrastructure and wide as well as reliable network coverage

SECTION D: OPINION ON THE ESTABLISHMENT OF DIGITAL FREE TRADE ZONE

D21. Are you aware or heard about the Digital Free Trade (DFTZ)?

☐ Yes, we heard about the DFTZ

☐ No, never heard or aware of DFTZ

☐ We heard but don't know the functions of DFTZ

☐ We are aware, but DFTZ is irrelevant to us

D22. The following are the potential benefits of DFTZ. *Please rate its likely impacts:*

1 – Most likely immediate impact 2 – Likely impact 3 – Moderate impact 4 – Somewhat likely 5 – Unlikely or the least impact

☐ DFTZ as the e-commerce regional hub will be a gateway for SMEs to tap into regional market

☐ The one-stop digital hub of logistics, payment, clearance, etc means e-commerce can function efficiently with all facilities being integrated in one location, thus potentially saving business costs

☐ DFTZ opens up many jobs & business opportunities. SMEs continue to grow through e-Commerce space and digital economy

☐ DFTZ will enhance commercial and financial institutions to support secured technology for e-commerce transactions

☐ DFTZ will develop our e-commerce to match up with global standards

☐ DFTZ will definitely expedite transformation of SMEs from failing old-fashioned ways by creating new channels of distribution that are based on improved knowledge economy

☐ Still too early to believe the potential benefits of DFTZ

D23. What are the challenges or disadvantages that you anticipate from the DFTZ?

Please ***rate 1-5*** *the potential challenges or disadvantages, with*

☐ Increased competition and threats from external businesses or from overseas suppliers

☐ Malaysia as first world's DFTZ outside China may be a test case for many more digital FTZs and their offshoots to come. Hence, Malaysia may potentially face competition from other DFTZs in future

☐ Traditional brick and mortar small retailers will be disrupted and driven out of business

☐ SMEs may face costly set up and investment outlay

☐ Confidentiality of business practices/strategies and security of data

☐ Still too premature to determine the challenges or disadvantages caused by the establishment of

D24. What are your future business plans in relation to the launching of DFTZ?

☐ We don't know. The industry was never consulted on the DFTZ plan

☐ E-tailing (retailing) and logistics seem to be the potential beneficiaries. We may diversify into this type of business

☐ May consider participating in the DFTZ, if given incentives, and when the timing is appropriate

☐ No immediate plans to do so, because the DFTZ is not so relevant to our current business model, and the value-add that it can bring

☐ We do not have details of the DFTZ yet, but we are well-prepared and ready to participate.

☐ Adopt wait-and-see. Hard to be convinced on DFTZ when Malaysia had encountered many challenges in past projects like MSC, Technology Park Malaysia (TPM), Cyberjaya, etc.

Responder Name : _____ Company name : _____
Email address : _____ Contact number : _____

Location / State: ☐ Kuala Lumpur ☐ Selangor ☐ Terengganu ☐ Penang ☐ Johor
☐ Pahang ☐ Perlis ☐ Malacca ☐ Perak ☐ Kedah
☐ Kelantan ☐ Sarawak ☐ Sabah ☐ Negeri Sembilan

******** *Kindly fill in the following for a complimentary copy of Executive Summary of this survey*********

Disclaimer: The information you have provided in this survey will be treated in strictest confidence.

~ Thank you very much for your cooperation ~

马来西亚中小型企业对电子化的准备

资讯及通讯科技 (ICT) 为企业带来各方面改革，并通过科技创新和开拓新市场为企业带来新商机，同时增进竞争力。数字革命让大家见证了宽频、云数据、大数据分析、物联网 (IoT) 、人工智能 (AI) 等的新兴科技应用，商家们亦开始通过电子商务拓展国内外广泛的客户群而获得了无限商机。鉴于数字潜力巨大，中小型企业必须与时并进，善用数字科技来提供服务及发展业务。

展望未来，近期宣布的数字自由贸易区 (DFTZ) 将会改变目前的商业模式，并推动数字科技与企业的整合。在数字经济下，中小型企业将同时扮演数字经济消费者及推动者的关键角色。目前的问题是，培育中小型企业使马来西亚电子商务成长翻倍时，其所面对的障碍、挑战及支援是什么？

这项调查旨在于评估中小型企业在新兴资讯及通讯科技的应用情况，并从连接性、应用能力及信心的角度探讨中小型企业参与数字经济的程度。同时，此调查也将探索中小型企业在采用电子商务/数字业务时所遇到的关键问题。与此同时，数字化带来不少挑战，特别是对传统或现有业务模式造成干扰。因此，这项调查亦会鉴定当中的问题，并探讨如何最有效克服这些障碍，以减轻未来的挑战。

请将填妥的调查问卷于 **2017 年 5 月 31 日前**电邮至 serc@acccimserc.com 或通过传真发到 (603) 4260 3118。如有任何询问，请联系**吴江进先生或李顺泰先生**，电话：(603) 4260 3116 / 3119。

*****若您有多项业务，请选择最主要的业务来回答以下问题。**

A：商业背景

A1. 主要从事行业

- ☐ 物流
- ☐ 建筑
- ☐ 进出口贸易
- ☐ 批发及零售
- ☐ 酒店及餐饮
- ☐ 房地产发展
- ☐ 制造（请注明类型）：_____
- ☐ 农业
- ☐ 矿业
- ☐ 专业服务（请注明类型）：_____
- ☐ 资讯及通讯科技（请注明类型）：_____
- ☐ 其他（请注明）：_____

A2. 请填写总销售 / 收入的来源：

本地市场：_____%　　国外市场：_____%

A3. 业务规模

制造业

- ☐ 微型（销售额：RM300,000 以下）
- ☐ 小型（销售额：RM300,000 ~ < RM15 mil）
- ☐ 中型（销售额：RM15 mil ~ ≤ RM50 mil）
- ☐ 大型（销售额：RM50 mil 以上）

服务业及其他领域

- ☐ 微型（销售额：RM300,000 以下）
- ☐ 小型（销售额：RM300,000 ~ < RM3 mil）
- ☐ 中型（销售额：RM3 mil ~ ≤ RM20 mil）
- ☐ 大型（销售额：RM20 mil 以上）

A4. 全职员工人数

☐ < 5 ☐ 5 - 29 ☐ 30 - 74 ☐ 75 - 199 ☐ 200 名或以上

A5. 请填写员工人数的分配：

本地员工：_____ % 外国员工：_____ %

A6. 企业拥有权 / 结构

☐ 土著 ☐ 非土著 ☐ 若是合资企业，请填写拥有权：

本地：_____ % 国外：_____ %

B：ICT 的采用水平

B7. 请圈出最能形容贵企业目前采用 ICT 的水平。

目前整体采用数字科技的水平

1 — 2 — 3 — 4 — 5

非常先进 先进 一般 不太先进 完全没有

B8. 贵企业有使用以下的 ICT 工具吗？

- ☐ 台式电脑 / 笔记本等
- ☐ 平板电脑 / 智能电话
- ☐ 短信服务 (SMS)
- ☐ 办公软件（微软 Words, Excel 等）
- ☐ 网络服务
- ☐ 内联网 (Intranet)
- ☐ 外联网 (Extranet)
- ☐ 其他（请注明）_____

以下级别用于问题 B9 及 B10

5 – 最为广泛使用；4 – 广泛使用；3 – 一般；2 – 不常使用；1 – 不曾使用

B9. 请问贵企业多常使用以下的 ICT 工具？请对以下的 ICT 工具作出评估。

- ☐ 电子邮件 (E-mail)
- ☐ 会计软件
- ☐ 企业网站
- ☐ 手机应用 / WhatsApp
- ☐ CRM/CAM (客户管理/采购系统)
- ☐ 社交媒体 (Facebook / Twitter 等)
- ☐ 电子银行/付款服务 (e-banking / e-payment)
- ☐ 其他（请注明）_____

B10. 贵企业有以任何 ICT 形式来进行以下的业务活动吗？

		不曾使用	不常使用	一般	广泛使用	非常广泛使用
a	策划及管理 – 例如：Enterprise Resource Planning (ERP); Computer Aided Manufacturing (CAM); Computer Aided Design (CAD)	1	2	3	4	5
b	营销，包括市场研究	1	2	3	4	5
c	库存管理	1	2	3	4	5
d	行政（发票，薪水结算，旅行预订等）	1	2	3	4	5
e	研究开发 / 设计	1	2	3	4	5
f	交货（物流、快递等）	1	2	3	4	5
g	客户服务	1	2	3	4	5
h	交易（缴交账单、银行过账等）	1	2	3	4	5

B11. 哪一句可以反映贵企业对以下数字科技的认知和使用？

		电子商务平台*	社交媒体**	WhatsApp	云服务	大数据
a	知道这些数字科技					
b	考虑在 2 年内使用					
c	考虑在 3 至 5 年内使用					
d	已经使用					
e	将不会使用					
f	我的业务不需要这种科技					

* 如：Lazada, Superbuy, 11Street, Lelong.my, Mudah.my, eBay, Alibaba

** 如：面子书，微信，推特，Google+，Instagram

B12. 采用 ICT 对贵企业带来多大的影响？

		非常有影响	有影响	只有一些影响	没有影响	不适用
a	效率提高并节约成本					
b	生产力提高					
c	招到更多生意 /销售额增长					
d	生意模式改变					
e	客户服务改善					
f	交货时间缩短					

B13. ICT 知识和技术的水平

☐ 企业设有 ICT 部门

☐ 外包 ICT 业务

☐ 没有 ICT 部门；员工的 ICT 知识和技术水平为：

↳ ☐ 足够 / 满意 ☐ 缺乏 ☐ 无

C：电子商务 / 数字科技的使用程度

C14. 目前您对电子商务/数字科技的使用程度

☐ 没有使用。企业运作无需依靠电子商务或数字科技
☐ 不知道如何透过电子商务推动生意
☐ 拭目以待中，但已作好准备有待适合的投资时机
☐ 已经使用电子商务长达_____年
→ 电子商务的交易占总销售收入：_____%
→ 电子商务类型： ☐ B2B ☐ B2C ☐ B2G ☐ C2C ☐ 其他_____

C15. 请问贵企业多久会更新或使用以下网站 / 软件:

	每天	每周	每月	每 3 至 4 个月一次	没用过/ 不适用
a 更新 / 重新设计企业的网站					
b 企业电邮 / 网页邮件（如 Gmail）					
c 社交媒体 – 面子书 / 谷歌 / 推特等					
d WhatsApp					
e 网络平台，如：阿里巴巴、Lazada					
f 其他（请注明 ）_____					

C16. 请评估以下电子商务的优点：

（1）极度重要 （2）非常重要 （3）重要 （4）一些重要 （5）不太重要（6）不是优点/没有关联

a 提供无限国内外市场的销售商机 ☐
b 跨越目前地理位置和运输时间的限制来增强销售 ☐
c 因规模经济和低转账成本而获得潜在的成本节省 ☐
d 能够开发新产品和服务 ☐
e 能够以大数据来研究消费者的购物倾向 ☐
f 可提升客户服务；更容易联系客户等 ☐

C17. 请评估以下企业在整合业务及数字科技/电子商务时所面临的一些挑战：

（1）极度挑战 （2）非常挑战 （3）具有挑战 （4）一些挑战 （5）不太挑战（6）不是挑战/没有关联

a 新科技投资需要投入很高的固定成本 ☐
b 需要流动现金来维持电子商务 / 网站 ☐
c 不安全 – 关于支付安全和数据隐私的风险 ☐
d 缺乏相关的 IT 知识和技能 / 缺乏 IT 专员 ☐
e 网速和通信基础设施的可靠性 ☐
f 业务太小不适合通过电子商务联系客户和供应商 ☐
g 缺乏探索数字/电子商务商机的方法 ☐

C18. 电子商务或 ICT 的采用（或扩展）对你来说是?

☐ 当务之急 ☐ 重要但不是很急 ☐ 非优先考虑事项 ☐ 不重要

C19. 有计划使用或扩展信息和通信技术（ICT）的采用

a 未来 24 个月计投入的资本： RM_____

b ICT 设备的投资占总销售额的百分比：_____%

C20. 请问您计划如何对电子商务上的采用或扩展作出融资？可选择多项

a 政府拨款或资助 ☐

b 自资 ☐

为什么自资？_____

c 其他方案（请注明）：_____

C21. 请按 1 至 5 列出政府应该实行的措施；1 – 最迫切， 5 – 最不迫切

☐ 促进使用电子政府（e-government）服务

☐ 提升用户于欺诈和隐私的防范

☐ 提供适当的财政资助和奖励

☐ 增强 ICT 相关的技术与知识

☐ 提供网络基础设施和广泛并可靠的网络覆盖

D：数字自由贸易区（DFTZ）成立的看法

D21. 您是否知道/听过数字自由贸易区（Digital Free Trade Zone,

☐ 有听说过 ☐ 有听说过但不了解

☐ 完全不知道/没听说过 ☐ 了解但业务与 DFTZ 毫无关联

D22. 以下是 DFTZ 的潜在好处。请评估最有可能带来的潜在影响：1 - 最可能带来即时影响、2 - 非常可能有影响、3 - 一般、4 – 不多影响 、5 - 微小影响 / 不太可能影响

☐ DFTZ 将成为区域中的电子商务枢纽并作为中小型企业进入区域市场的管道

☐ 一站式的数字中心包括物流、付款、通关等，也意味着电子商务可以在一个综合站高效地运作，从而获得经商成本的节省

☐ DFTZ 造就更多就业机会和商机。中小型企业可以依靠电子商业和数字经济达到成长

☐ DFTZ 将使商业和金融机构加强电子商务交易上的安全

☐ DFTZ 将推动马来西亚的电子贸易到世界水平

☐ DFTZ 必定会加快中小型企业的转型速度，脱离陈旧乏味的经营手法，并建立新分销渠道和改进知识

☐ 现在判断其潜在好处尚言之过早

D23. 您觉得 DFTZ 会有怎样的挑战或劣势呢？

请评估最有可能带来的潜在影响：1 - 最可能带来即时影响、2 - 非常可能有影响、3 - 一般、4 – 不多影响 、5 - 微小影响 / 不太可能影响

☐ 就更多来自国外的竞争而感觉受到威胁

☐ 首个中国以外的 DFTZ 可能只是一个试点，马来西亚还是可能会受到往后类似的 DFTZ 所带来的竞争

☐ 传统的实体小型零售商将无法生存

☐ 中小型企业可能面临昂贵的企业设立成本和投资

☐ 商业惯例或策略的保密性和数据安全性上的风险

☐ 现在判断其挑战或劣势尚言之过早

D24. 请问您就 DFTZ 的推出有什么商业计划？

☐ 不知道，有关 DFTZ 一事从未与商界洽谈

☐ 电子零售 (E-tailing) 及物流业将会是潜在的受益行业，因此打算进军这类业务

☐ 在获得奖励又配合时机下，会考虑参与 DFTZ

☐ 没有即时计划，毕竟 DFTZ 对自身的商业模式毫无关联，也没有任何附加值可言

☐ 没有 DFTZ 的详情，但是已经作好准备参与其盛

☐ 采取观望策略。马来西亚在过去的项目中（多媒体超级走廊(MSC)、马来西亚科技园(Technology Park Malaysia, TPM)、赛城(Cyberjaya)等）遇到太多挑战而难以对 DFTZ 抱有信心

**********请填写以下的资料，以便获得此调查的摘要*********

您的姓名 :		公司名称 :		
电邮地址 :		电话号码 :		
所在州属 :	☐ 吉隆坡	☐ 雪兰莪	☐ 登嘉楼	☐ 槟城	☐ 柔佛
	☐ 彭亨	☐ 玻璃市	☐ 马六甲	☐ 霹雳	☐ 吉打
	☐ 吉兰丹	☐ 砂拉越	☐ 沙巴	☐ 森美兰	

免责声明：您对此调查所提供的信息将被绝对保密。

~ 感谢您的参与 ~

Persediaan Perusahaan Kecil dan Sederhana (PKS) Terhadap Ekonomi Digital / E-Dagang

Perkembangan pesat teknologi maklumat dan komunikasi (ICT) sedang mengubah arah aliran perniagaan dengan menwujudkan peluang baru menerusi inovasi-tekno; perluasan pasaran baru, selain dari peningkatan daya saing. Revolusi digital menyaksikan kemunculan kemudahan prasarana dan aplikasi seperti jalur lebar, Cloud, Big Data, Internet of Things (IoTs) dan AI (artificial intelligence) yang boleh mempertingkatkan kecekapan dan keberkesanan peniaga meneroka pasaran merentasi sempadan dan berhubung kiat dengan pelanggan secara global.

Selaras dengan transformasi digital dalam urusniaga dan e-dagang menunjukkan potensi yang tinggi, PKS perlu menerap ICT dan memperalatkan teknologi digital untuk mempertingkatkan perkidmatan and mengembang perniagaan. Melangkah ke hadapan, pengumuman Digital Free Trade Zone (DFTZ) harus dilihat sebagai 'game changer' untuk memacu integrasi teknologi digital dan perniagaan. PKS bakal memainkan peranan yang lebih besar bukan sahaja sebagai pendorong, tetapi sebagai pemacu utama pertumbuhan ekonomi digital. Apakah rintangan dan cabaran yang dihadapi dalam proses memupuk dan mendorong PKS untuk mencapai sasaran menggandakan e-dagang di Malaysia?

Kaji selidik ini bertujuan untuk meneliti status PKS dari segi tahap penerapan, keupayaan dan keyakinan mereka terhadap ekonomi digital dan penggunaan e-dagang. Pelbagai faktor dan isu yang mempengaruhi PKS dalam transformasi kepada penggunaan ICT, khususnya dalam adaptasi e-dagang akan dikenalpasti. Hasil dari kajian ini bertujuan untuk mengenal pasti jurang dan sejauhmana halangan tersebut boleh diatasi bagi menangani cabaran masa depan.

Kami memohon kerjasama anda untuk memberi maklumbalas yang tepat bagi setiap soalan. Sila kembalikan borang soal selidik yang lengkap **sebelum 31 May 2017** kepada serc@acccimserc.com atau faks no. 03-4260 3118. Sekiranya anda mempunyai sebarang pertanyaan, sila hubungi **En. Goh Kong Jun** atau **En. Lee Soon Thye** di talian **03-4260 3116/3119**.

***Jika anda mempunyai pelbagai perniagaan, sila rujuk kepada perniagaan yang terutama semasa menjawab.**

Bahagian A – Profil Perniagaan

A1. Sektor / Sub-sektor

- ☐ Logistik
- ☐ Pembinaan
- ☐ Import-Eksport
- ☐ Borong & Runcit
- ☐ Restoran & Hotel
- ☐ Hartanah
- ☐ Pembuatan *(sila nyatakan jenis)* _____
- ☐ Pertanian
- ☐ Perlombongan
- ☐ Khidmat Profesional _____
- ☐ ICT *(sila nyatakan jenis)* _____
- ☐ Lain-lain *(sila nyatakan))* _____

A2. Sila nyatakan orientasi hasil jualan atau jumlah pendapatan syarikat daripada :

Pasaran tempatan: _____ % Pasaran luar negera _____ %

A3. Saiz operasi perniagaan

Sektor Pembuatan:

- ☐ Mikro (Jualan tahunan: < RM300,000)
- ☐ Kecil (RM300,000 hingga < RM15 juta)
- ☐ Sederhana (RM15 juta hingga ≤ RM50 juta)
- ☐ Besar (Jualan tahunan > RM50 juta)

Perkhidmatan dan sektor lain:

- ☐ Mikro (Jualan tahunan: < RM300,000)
- ☐ Kecil (RM300,000 hingga < RM3 juta)
- ☐ Sederhana (RM3 juta hingga ≤ RM20 juta)
- ☐ Besar (Jualan tahunan > RM20 juta)

A4. Bilangan pekerja **sepenuh** masa:

☐ < 5 ☐ 5 - 29 ☐ 30 - 74 ☐ 75 - 199 ☐ 200 atau lebih

A5. Peratusan guna tenaga:

Pekerja tempatan: _____ % Pekerja asing: _____ %

A6 Milikan perniagaan:

☐ Bumiputera ☐ Bukan-Bumiputera Sekiranya syarikat usahasama, sila nyatakan ekuiti:

Tempatan: _____ % Asing: _____ %

BAHAGIAN B: PENGETAHUAN & TAHAP PENGGUNAAN ICT

B7. Sila nyatakan tahap pengunaan/penerapan ICT dalam perniagaan anda

Tahap penguasaan / penerapan ICT

1	2	3	4	5
Sangat Mahir/ alat ICT sangat canggih	*Mahir/ alat ICT mencukupi*	*Sederhana/ keupayaan guna ICT terhad*	*Tahap asas/ Jarang guna ICT*	*Tiada budaya ICT*

B8. Sila tanda (✓) untuk kemudahan ICT yang digunakan dalam perniagaan anda

- ☐ Komputer /komputer riba / *notebook*
- ☐ Tablet/ Telefon pintar
- ☐ SMS
- ☐ Perisian *(Microsoft Excel, Word, dll)*
- ☐ Perkhidmatan internet
- ☐ Intranet
- ☐ Extranet
- ☐ Lain-lain *(sila nyatakan)* _____

B9. Sila nilaikan aplikasi ICT yang sedia ada menurut kekerapan penggunaan

5 – Paling sering digunakan; 4 – Sentiasa digunakan 3 – Kadang-kala; 2 – Jarang diguna; 1 – Tidak digunakan

- ☐ E-mel
- ☐ Perisian perakaunan
- ☐ Laman web syarikat
- ☐ Aplikasi telefon/ *WhatsApp*
- ☐ Sistem pengurusan pelanggan (*CRM/CAM*)
- ☐ Media sosial (*Facebook/Twitter, dll*)
- ☐ E-perbankan / perkhidmatan e-bayar
- ☐ Lain-lain (*sila nyatakan*) _____

_____

_____

B10. Nyatakan aplikasi ICT dalam operasi harian perniagaan anda:

		Tidak mengguna	*Jarang diguna*	*Kadang kala*	*Kerap diguna*	*Sangat kerap diguna*
a	Perancangan & kawalan *– contoh: Enterprise Resource Planning (ERP); computer aided manufacturing (CAM); computer aided design (CAD), dll*	1	2	3	4	5
b	Pemasaran, termasuk risikan pasaran	1	2	3	4	5
c	Pengurusan inventori	1	2	3	4	5
d	Pentadbiran (*contoh: invois, pembayaran gaji, urusan tempahan perjalanan, dll)*	1	2	3	4	5
e	R & D / pelan reka bentuk, dll	1	2	3	4	5
f	Penghantaran (*logistik, penyerahan kurier, dll*)	1	2	3	4	5
g	Khidmat pelanggan	1	2	3	4	5
h	Transaksi kewangan (*bayaran bil, memindah pembayaran urusniaga, dll)*	1	2	3	4	5

B11. Sila tandakan (✓) pada kenyataan yang paling menggambarkan situasi syarikat anda dalam penggunaan/penerapan aplikasi ICT yang disebutkan di bawah:

		Platform E-dagang*	Media Sosial**	WhatsApp	Cloud	Big Data
a	Tahu mengenai teknologi tersebut					
b	Akan menerap aplikasi ini dalam masa 2 tahun					
c	Akan menerap aplikasi ini dalam masa 3-5 tahun					
d	Telah diguna dalam urus niaga/ kerja seharian					
e	Tidak akan menerap aplikasi ini sama sekali					
f	Tidak diperlukan dalam perniagaan semasa					

** E.g. Lazada, Superbuy, 11Street, Lelong.my, Mudah.my,eBay, Alibaba dll*
*** E.g. Facebook, WeChat, Twitter, Google+, Instagram, dll*

B12. Impak penerapan dan kemudahan ICT terhadap unit operasi/syarikat?

		Amat berkesan	Berkesan	Kurang berkesan	Tidak berkesan	Tidak berkaitan
a	Tingkatkan kecekapan & jimatkan kos					
b	Meningkatkan produktiviti					
c	Menjana lebih jualan					
d	Model perniagaan telah berubah					
e	Penambahbaikan perkhidmatan pelanggan					
f	Masa penghantaran disingkatkan					

B13. Tahap pengetahuan dan penguasaan kemahiran ICT di kalangan pekerja

☐ Syarikat mempunyai bahagian ICT ☐ Tiada bahagian ICT. Tahap kompetensi pekerja adalah :

☐ ICT diurus oleh syarikat luar → ☐ Mahir ☐ Kurang mahir ☐ Tidak mahir

BAHAGIAN C: INTENSITI PENGUNAAN E-DAGANG /TEKNOLOGI DIGITAL

C14. Intensiti penggunaan sumber teknologi digital / E-dagang

☐ Tidak perlu guna. Perniagaan boleh berfungsi tanpa penggunaan e-dagang (e-commerce)

☐ Tidak tahu bagaimana menggunakan e-dagang untuk memacu perniagaan kami

☐ Masih tunggu & lihat, tetapi telah bersedia untuk melabur apabila tiba masanya

☐ Telah menggunakan kemudahan e-dagang semenjak _____tahun yang lepas

→ Hasil jualan dari e-dagang daripada jumlah hasil jualan perniagaan: _____%

→ Jenis e-dagang: ☐ B2B ☐ B2C ☐ B2G ☐ C2C ☐ Lain-lain

C15. Kekerapan mengemaskini atau akses laman-laman :

		Setiap hari	Setiap minggu	Setiap bulan	Sekali setiap 3-4 bulan	Tidak guna/Tidak berkenaan
a	Kemaskini laman web syarikat					
b	E-mel / webmail (*Gmail*)					
c	Media sosial - *Facebook / Google / Twitter*					
d	WhatsApp					
e	e-platform - *Alibaba, Lazada, ebay, dll*					
f	Lain-lain (*sila nyatakan*)_____					

C16. Pada <u>skala 1 hingga 6</u>, sila tandakan manfaat yang didapati daripada penerapan e-dagang.

(<u>Skala</u> 1 = Paling manfaat; 2=Sangat manfaat; 3=Sederhana; 4=Kurang manfaat; 5=Manfaat yang minimum; 6 = Tiada manfaat atau Tidak berkaitan)

a	Menawarkan peluang yang tidak terhad untuk menjual produk/perkhidmatan	☐
b	Meningkatkan jualan yang disekat oleh faktor lokasi fizikal dan masa	☐
c	Meraih manfaat daripada ekonomi skala, dan kos urusniaga yang lebih rendah	☐
d	Potensi untuk menawarkan pelbagai produk dan perkhidmatan baru	☐
e	Pangkalan data memudahkan analisa tingkah laku pembelian pengguna	☐
f	Meningkatkan tahap perkhidmatan pelanggan; memudahkan komunikasi, dsb.	☐

C17. Sila nilaikan cabaran/kekangan yang dihadapi dalam proses mengintegrasikan perniagaan dengan teknologi digital / e-dagang. *(Skala 1= Paling utama ; 2=Sangat mencabar; 3=Kadang-kadang mencabar 4=Kurang mencabar; 5= Paling kurang mencabar; 6=Tiada cabaran atau Tidak berkaitan)*

a	Pelaburan ICT menelan kos yang tinggi	☐
b	Perlu ada aliran tunai (cash flow) untuk penyelengaraan e-dagang	☐
c	Risiko isu keselamatan dan sekuriti terhadap data privasi	☐
d	Kurang kemahiran / kekurangan juruteknik IT	☐
e	Infrastruktur telekomunikasi dan kelajuan internet	☐

f Saiz perniagaan adalah terlalu kecil untuk menggunakan e-dagang ☐

g Tiada pengetahuan untuk memanfaatkan peluang digital/e-dagang ☐

C18. **Adakah teknologi inovasi/digital merupakan keutamaan untuk perniagaan anda?**

☐ Paling utama ☐ Penting tapi tak utama ☐ Kurang penting ☐ Tidak penting/Tidak relevan

C19. Rancangan penerapan/pengembangkan ICT

a Jangkaan perbelanjaan untuk ICT dalam tempoh 24 bulan yang akan datang:

b Jangkaan pelaburan ICT sebagai % daripada jumlah hasil perniagaan: _____%

C20. Bagaimanakah anda membiayai pelan yang disebut di C19? *Boleh tanda lebih daripada satu*

a Geran / bantuan daripada agensi-agensi kerajaan ☐

b Dibiayai sendiri ☐

Mengapa dibiayai sendiri? _____

c Dibiaya menerusi sumber lain (*sila nyatakan*) _____

C21. Tandakan mengikut skala kepentingan 1 hingga 5, inisiatif yang perlu diterajui oleh kerajaan dalam mempertingkatkan usaha penerapan ICT *(skala 1- Paling Penting hingga 5= Kurang penting).*

☐ Mempercepatkan penggunaan perkhidmatan e-kerajaan

☐ Memperkukuhkan kawal selia bagi perlindungan terhadap risiko dan privasi data

☐ Menyediakan sokongan kewangan atau insentif yang sewajarnya

☐ Meningkatkan pengetahuan dan kemahiran penggunaan ICT

☐ Menyediakan infrastruktur bertaraf dunia dan liputan keterhubungan yang luas dan pantas

BAHAGIAN D: ZON PERDAGANGAN BEBAS DIGITAL (Digital Free Trade Zone - DFTZ)

D21. Adakah anda tahu berkenaan penubuhan Zon Perdagangan Bebas Digital (DFTZ)?

☐ Ya, pernah dengar ☐ Pernah dengar, tetapi tidak tahu apakah fungsi DFTZ

☐ Tidak tahu ☐ Tahu, tetapi DFTZ tidak relevan bagi kami

D22. Pada pendapat anda, apakah kesan yang jangka direalisasikan daripada DFTZ. *Sila nilai mengikut keutamaan: 1– Impak paling utama & serta merta; 2 – Impak utama; 3 – Impak sederhana ; 4 – Impak kurang jelas; 5 – Paling tidak berkesan/tiada impak*

☐ Sebagai pusat serantau e-dagang, DFTZ adalah gerbang bagi IKS untuk meneroka pasaran

☐ Dengan pusat sehenti (*one-stop digital hub*) yang mengintegrasikan segala fungsi perdagangan, e-dagang boleh berfungsi dengan lebih cekap, justeru berpotensi menjimatkan kos niaga

☐ DFTZ dijangka menawarkan banyak peluang perniagaan dan pekerjaan. IKS boleh terus berkembang melalui ruangan e-dagang dan ekonomi digital yang tidak terbatas

☐ DFTZ akan mempertingkatkan peluang komersial dan institusi kewangan dalam menyediakan teknologi selamat untuk transaksi e-niaga

☐ DFTZ membantu perkembangan e-dagang di Malaysia yang sepadan dengan tahap global

☐ DFTZ pasti dapat mempercepatkan transformasi PKS daripada cara perniagaan

☐ tradisional kepada rangkaian pengedaran baru yang berasaskan k-ekonomi

☐ Masih terlalu awal untuk menilai manfaat daripada DFTZ

D23. Apakah cabaran atau ancaman yang bakal dihadapi dengan adanya DFTZ?
*Sila pilih tanda **1- 5** sahaja, di mana 1 – Cabaran paling utama; 2 – Sangat mencabar; 3 – Kadang-kadang memcabar; 4 – Kurang mencabar; 5 – Paling kurang cabaran*

☐ Peningkatan persaingan dan ancaman medan niaga dari luar negara

☐ DFTZ ini mungkin merupakan "*test case*" yang pertama di luar China. Malaysia berpotensi menghadapi persaingan daripada DFTZ yang lain sekiranya negara-negara lain mengorak langkah yang sama

☐ Peruncit kecil fizikal akan terganggu dan dihalau keluar daripada pasaran

☐ PKS mungkin menghadapi perbelanjaan penubuhan (set-up) dan pelaburan yang tinggi

☐ Kerahsiaan amalan niaga dan keselamatan data atau strategi perniagaan akan tergugat

☐ Masih terlalu awal untuk menilai cabaran/ancaman yang akan dihadapi

D24. Apakah rancangan masa depan anda berkaitan dengan pelancaran DFTZ?

☐ Tidak tahu. Industri tidak diajak berbicara mengenai dea/pelan DFTZ.

☐ E-tailing (e-peruncitan) dan logistik merupakan sektor yang berpotensi meraih faedah daripada DFTZ, justeru kami sedia menceburi bidang tersebut

☐ Sedia menyertai DFTZ sekiranya diberi insentif, dan apabila masanya sesuai

☐ Tiada perancangan sebab DFTZ tidak begitu berkaitan dengan model perniagaan kami dan peningkatan nilai-tambah (value-add)

☐ Tiada maklumat lanjut tentang DFTZ, tetapi kami bersedia untuk menceburi

☐ Tunggu dan lihat. Kurang yakin dengan idea DFTZ sedangkan Malaysia pernah menghadapi kekangan dalam projek terdahulu seperti MSC, Technology Park Malaysia (TPM), Cyberjaya, dll.

******Sila isikan maklumat berikut untuk salinan percuma Ringkasan Eksekutif tinjauan ini.******

Nama syarikat : _____ Nama responden : _____
E-mel : _____ No. Tel. : _____
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☐ Pahang ☐ Perlis ☐ Melaka ☐ Perak ☐ Kedah
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Maklumbalas anda adalah SULIT dan segala maklumat yang diberikan adalah untuk kegunaan SERC sahaja.

~ Terima kasih di atas penyertaan anda dalam kaji soal selidik ini