

# The Characteristics of Adopters and Non-Adopters of Digital Marketing Application among Micro, Small and Medium Enterprises (MSMES)

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**ABSTRACT**— *This article aims to reveal the profiles of adopters and non-adopters of digital marketing application among Micro, Small and Medium Enterprises (MSMEs) in Malaysia. This research focuses primarily on MSMEs in Perak State. The researchers employed a quantitative approach to meet the research objectives. A survey involving 400 MSMEs in Perak State was conducted to investigate the adopters and non-adopters of digital marketing application. The 361 completed survey data were analyzed using descriptive statistical tools. The results found that out of 361 respondents, 175 are adopters and 186 are non-adopters. The Chi-square tests indicated that the gender and age of business did influence the adoption levels amongst MSMEs. Majority of the adopters used social media, followed by e-marketing and digital contents. Information sharing, communication with customers as well as advertising and promotion respectively were found to be the key motives for using digital marketing applications. Over sixty (60) per cent of the non-adopters stated their intention to adopt digital marketing but only 21.4 per cent of them intended to do so within a year. Enterprise “does not know how to best utilize digital marketing in business”, “not enough resources (time, monetary, employee and external support)” as well as “not enough skills and knowledge to implement digital marketing”, reported by 46.2 per cent of the non-adopters. This indicates that most Malaysian MSMEs were lack of awareness especially knowledge and internal resources to apply this type of technology. These findings have important implications and value for the research community, MSMEs and policymakers in terms of formulating improved strategies for digital marketing adoption and applications. The results also lend answers on why some MSMEs have chosen to adopt digital marketing technologies, while other MSMEs which face similar market conditions have not.*

**Keywords**--- MSME, digital marketing, entrepreneurs, adopters, non-adopters

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## 1. INTRODUCTION

Various studies have shown that by strategically harnessing the power of Internet, business organizations may able to increase profit maximization through strategic online marketing approach which covers broad spectrum of applications that enable businesses to form virtual relationships with its customers, potential buyers, resellers, suppliers and business partners around the world. Hongyu and Dongmei (2011) suggested that, the advent of the Internet has changed global business and marketing landscape especially on how they distribute product's information among customers and how they interact with supply and demand as well as buy and sell. Internet usage started mainly as a means of communication via electronic mails (E-mail) and for providing information via online news and homepages on the Web (Drew, 2003). According to International Telecommunication Union (ITU) (2018), as of June 2017, 54.4 per cent of the world's population has Internet access, with Asia has the most Internet users representing 48.7 per cent from that population.

Despite the efforts of the Government and various support schemes, only 30 per cent of the local MSMEs have their own websites as revealed by the Malaysian Small and Medium Industry Association in 2013. Some are still at the initial stage, and or not progressing much beyond E-mail and simple information-based webpages. Ang, Tahar and Murat (2013), mentioned that, although Malaysian MSMEs have company website but most of the functions are limited to just for corporate image purposes only and neglected the importance of website for communication and promoting products and services. In fact, MSMEs owners or managers still do not know and understand the strategic value of digital marketing on their businesses (Lim, Baharudin & Low, 2017). The number of MSMEs achieving advanced stages of digital marketing is very low as compared to larger corporations (Omar et al., 2011). Therefore, in view of the low

adoption of digital marketing applications among MSMEs and lag of digital marketing research being done in Malaysia within the context of MSMEs, there is a need and worth to investigate the profiles of adopters and non-adopters of digital marketing among Malaysian MSMEs.

## **2. PAST STUDIES**

Research on small and medium-sized enterprises (SMEs) has been widely conducted all over the world. Those studies focus on many areas related to SME operations including determinants affecting e-commerce adoption and differences between adopters and non-adopters of e-commerce (Abdullah, Wahab & Shamsuddin, 2013; Yeboah-Boateng & Essandoh, 2014; Ahmad et al., 2015; Rahayu & Day, 2015; Ramayah, Ling, Taghizadeh & Rahman, 2016; Araujo & Zilber, 2016; Lim, Baharudin & Low, 2017). In Malaysia however, few researches found to investigate the adoption of digital marketing among MSMEs. Thus, further investigation should be encouraged to enrich the body of knowledge.

### **2.1 Malaysian MSMEs**

Since Malaysia is well-positioned and strategically located in the Asia region which has been regarded as the most populated Internet users in the world by ITU, the Malaysian MSMEs should take this advantage by adopting digital marketing in their businesses to help them grow and participate in new opportunities both locally and globally. The benefits associated with digital marketing among MSMEs have received empirical attention in the past such as Melewar and Smith (2003) who found that the Internet may enhance the ability of MSMEs to identify and evaluate international competitors apart from developing networks of contacts and partners in foreign markets. With the ability to enter international markets at minimal costs, digital marketing may provide wider opportunities for the Malaysian MSMEs to reach new potential customers around the world. According to SME Corporation (2015), Malaysian MSMEs contributed 36 per cent to the national GDP in 2014, and this is expected to grow at around 10 per cent annually to reach 49 per cent by 2020. This is also supported by Malaysia Digital Economy Corporation (MDEC) (2017) that stated, Malaysia has a large segment of the population that is well-versed in technology and most Malaysians who use the Internet spend more than 16 hours online each week. Consistently, more than 67 per cent of the population currently are considered as Internet users or netizens, and 80 per cent of these netizens are estimated to have made online purchases before, a rate that is comparable to other countries such as Thailand, Singapore, India, and China. Malaysia has about 12 per cent of people using credit card, the second highest in ASEAN, behind Singapore's 37 per cent but well ahead of Thailand's 5 per cent and Indonesia's 1 per cent. Malaysia also has solid e-Commerce platforms, including online marketplaces such as *Lelong* and *Mudah*, and big international companies such as Zalora and Lazada have entered the market. The Internet business infrastructure is also supported by well-developed regulations, including the Electronic Commerce Act (ECA) and the Personal Data Protection Act (PDPA).

### **2.2 Digital Marketing and ICT adoption in MSMEs**

The term digital marketing may be perceived as the new and latest ICT innovation to support business marketing processes that is based on the Internet through the use of digital information and online media, with a view to create, disseminate and transfer of business value in order to achieve marketing objectives and to support the transactions of marketing activities processes such as building customer relationships and enhancing service quality delivery.

MSMEs have unique features that can help them to compete with larger corporations especially when comes to adopt new technologies in their business operations. They are often seen as dynamic organizations and thus are expected to easily adapt to modern ICT technologies (Abdullah, Wahab & Shamsuddin, 2013). MSMEs are more flexible, adapt to changes, and are better placed to develop and accept new ideas as compared to larger corporations (Bala Subrahmanya, Mathirajan & Krishnaswamy, 2010). Yeboah-Boateng and Essandoh (2014) also agreed that MSMEs are easily to adapt ICT because of their size and nature, they are more flexible and simple organization structures compared to larger corporations, which allows them to be more innovative in their response to rapid technological changes in a globalization environment.

There are substantial evidences that MSMEs has engaged with many technological innovations. Bala Subrahmanya et al. (2010) has found that, MSMEs has witnessed the introduction of a range of digital marketing applications, ranging from basic technologies to more complex and advanced IT capabilities, such as Web 2.0. Other studies have also examined the adoption of different ICT applications over recent decades. For example, Kuan and Chau (2001) investigated the adoption of Electronic Data Interchange (EDI) by MSMEs in Hong Kong while in another study by Rahayu and Day (2015) have studied E-commerce adoption in MSMEs in Indonesia. In a similar vein, a recent study by Ramayah, Ling, Taghizadeh and Rahman (2016) have also identified determinants for website usage intention among Malaysian MSMEs, reflecting an interest in understanding the adoption of Internet technology in this country.

### **2.3 Adopters and Non-adopters of e-commerce**

Firms of all sizes are finding it necessary to establish a Web presence to increase their ability to survive in an increasingly dynamic and competitive business environment (Patrick & Elaine, 2005). The increase of e-commerce use by businesses is mostly being driven by large companies. In comparison with larger companies, the adoption of e-

commerce by SMEs relatively lags behind (Govindaraju et al., 2015; Alam et al., 2011; Chilya et al., 2011). Larger companies utilize social media more intensively, and the adopter's organizational disposition innovativeness strongly influences the continuity and intensity of the innovation's use (Araujo & Zilber, 2016). Sawyer (2011) argues that new social media has brought people from different cultures together in the “global village”.

A study by Patrick and Elaine (2005) reported that there are differences between adopters and non-adopters of electronic commerce in SME professional service firms in New Zealand. Six factors relating to a firm's external/internal environment were found to underpin adoption. These are: response to technological environment/opportunities afforded by technology; negative attitudes or perceived barriers/impediments to electronic commerce; electronic commerce capability; response to new technology/innovation; customer orientation; and sensitivity to competitive/customer environments.

Pearson and Grandon (2005) conducted a survey on managers/owners of SMEs to identify variables that differentiate between adopters and non-adopters of e-commerce. The results indicated that SMEs most receptive to adopting e-commerce have the financial and technological resources, see e-commerce as useful for their firms, and feel external pressure to integrate e-commerce into their organization.

Another study by Ajay and Tobeng (2015) found only three independent factors namely (relative advantage, competitive pressure, IT knowledge) were statistically significant to influence the adoption of e-commerce among SMEs. The relative advantage emerged as the most important factor influencing the adoption of e-commerce among SMEs in terms of relative importance. The Chi-square test indicates that the type of business, occupation level, numbers of employees in the company and academic qualification did influence the adoption levels amongst SMEs whilst how long as owner/manager and gender did not influence the adoption level.

In Indonesia, Rahayu and Day (2017) conducted a survey on 292 SMEs in relation to e-commerce. The results recorded that only 21 (7.2 %) out of the total respondents have not connected to the internet and they do not have an e-mail, while the others 271 (92.8 %) have internet access. The former in this study are classified as non-adopters, whilst the latter are classified as e-commerce adopters.

SMEs in the UK are adopting e-commerce, through an exploration of their level and sequence of adoption. The research, which was carried out by means of a mailed questionnaire, found four distinct clusters of adoption. These formed a set of sequential stages, through which firms appear to pass during the adoption of e-commerce. The firms in the first cluster are currently developing their first e-commerce services; the second adoption cluster are using e-mail to communicate with customers, suppliers and employees. Those at the third level of adoption have information-based websites operating and are developing on-line ordering facilities. The most advanced adopters have on-line ordering in operation and are developing online payment capabilities (Daniel, Wilson, & Myer, 2002)

In the service sector, there were significant differences between adopters and non-adopters of the service in terms of their perceptual, experience and consumer related characteristics. Internet banking adopters perceived internet banking use as less risky, more user-friendly and more useful compared to internet banking non-adopters. Internet banking non-adopters who intend to use the service in the future (i.e. later adopters) perceived internet banking use as less risky and more useful compared to non-adopters who do not intend to use the service (i.e. laggards). Internet banking adopters were also found to have more experience with mobile internet, and have higher income and longer working hours (Ozdemir, Trott & Hoecht, 2008).

### **3. METHODOLOGY**

This study employs survey method to gather data from the MSMEs. Pilot test was conducted using 25 respondents. Using simple random sampling technique, 400 MSMEs were selected from the sampling frame available in Perak state. 31 MSMEs rejected the invitation to participate during the pre-notified stage. Hence, 369 responses were sent for survey. There were seven (7) non-usable responses with five (5) from postage and two (2) from e-mail respectively while one (1) response received via postage after the deadline which is considered as no response. 361 responses were valid for analysis, representing 98.1 per cent of completed rate respectively. The survey was conducted in October 2018 in Perak state, Malaysia and questionnaires were e-mailed or posted to the respondents according to owner-managers' preferences.

### **4. FINDINGS**

#### **4.1 Owner-managers' Profiles**

In respect of gender characteristics of the owner-managers of the MSMEs that participated in this survey, majority of the respondents were male representing 80.1 per cent or 289 respondents. The survey data also shows a comparable number from a recent study by Ahmad, Suseno, Seet, Susomrith and Rashid (2018) that revealed only 20.6 per cent of Malaysian MSMEs are owned or managed by females. This might be due to the characteristics of the Malaysian's cultural setting and traditions associated with the concept of women at work.

In terms of age group, the result shows that respondents aged 35 to 44 years old comprised nearly half of the total respondents (44.6%) while owner-managers between the aged of 25 and 34 years was the second largest group followed by 45 to 54 years with 23.5 per cent and 22.2 per cent respectively. However, 7.5 per cent of the population is represented by the older generation aged above 55 years old compared to just 2.2 per cent of the younger generation aged below than 25 years old. These results are not surprising as recent statistics released by the SME Corporation Malaysia have indicated that the 35 to 44 age group is the dominant decision makers in the country, suggesting a relatively mature-entrepreneurs population in this country (SME Corporation, 2015).

On the question of educational attainment, it is worthy to note that, there is still a small portion of Malaysians for not having any formal educational qualification (4.4%) and secondary school leavers (6.9%), indicating a low educational background of decision makers in the region. Gratefully, the data also shows that educational level of those sampled is generally high. More than half (54.8%) of the respondents' highest qualification was at degree level and 13.9 per cent having Master or PhD while owner-managers with pre-university of diploma represents the second highest group accounting 19.9 per cent of the population, indicating a well-educated decision makers population in the Perak state.

**Table 1:** Malaysian MSMEs owner-managers' demographic characteristics

Demographics	Frequency	Percentage
<i>Gender</i>		
Male	289	80.1
Female	72	19.9
<i>Age</i>		
Less than 25	8	2.2
25 to 34	85	23.5
35 to 44	161	44.6
45 to 54	80	22.2
55 to 64	26	7.2
65 and over	1	0.3
<i>Highest education level</i>		
No formal qualification	16	4.4
Primary school	0	0.0
Secondary school	25	6.9
Pre-university or diploma	72	19.9
Degree	198	54.8
Postgraduate - Master/PhD	50	13.9

## 4.2 Business Profiles

Among the participant enterprises, less than a year enterprise accounted for only a small proportion (6.7%) of the total sampled enterprises, while those which had been in business for one to three years and four to six years made up 16.6 per cent and 20.2 per cent of the sample, respectively. The vast majority were businesses that had been in business for more than six years (56.5%), indicating that MSMEs in the region is well-established. Table 2 below presents the relevant summary data.

Given the definition of Malaysian MSMEs based on number of employees, the highest proportion (54%) of the sampled enterprises fell into the small-enterprises category with number of employees between 5 to 74 staffs, while the other two categories, micro-enterprises (less than 5 employees) represents 36 per cent and medium-enterprises (75 to 200 employees) accounts for 10 per cent of the sample. This indicates that the sampled MSMEs in the region are led by small-size companies compared to the previous study by Aman et al. (2011) who revealed that micro enterprises are the majority for Malaysian MSMEs if based on number of full-time employees.

As referred to the other definition of Malaysian MSMEs based on approximate annual sales, the highest proportion (67.3%) of the sampled enterprises fell into the small-enterprises category with approximate annual income of between RM300,000 and less than RM15 millions, while the other two categories, micro-enterprises (less than RM300,000) and medium enterprises (between RM15 millions and less than RM50 millions) accounts for 22.7 per cent and 10.0 per cent of the sample, respectively. Similarly, this results also indicates that the sampled MSMEs in the region are led by small-size companies if based on approximate annual sales income.

As far as the make-up of the sample by industry sector is concerned, the survey results indicate that the sample comprised MSMEs from manufacturing (24.6%), services (57.1%) and others (18.3%), demonstrating a similar proportional record by SME Corporation (2015).

**Table 2:** Malaysian MSMEs demographic characteristics

Demographics	Frequency	Percentage
<i>Age of business organization</i>		
Less than a year	24	6.7
1 to 3 years	60	16.6
4 to 6 years	73	20.2
More than 6 years	204	56.5
<i>Total number of employees</i>		
Less than 5	130	36.0
5 to 29	171	47.4
30 to 74	24	6.6
75 to 200	36	10.0
<i>Approximate annual sales</i>		
Less than RM300,000	82	22.7
RM300,000 and less than RM3 million	177	49.0
RM 3 million and less than 15 million	66	18.3
RM15 million and less than RM20 million	20	5.5
RM20 million and less than RM50 million	16	4.5
<i>Main business sector</i>		
Manufacturing	89	24.6
Services	206	57.1
Others	66	18.3
<i>Market area</i>		
Urban market	108	29.9
Rural market	20	5.5
National market	156	43.3
International market	77	21.3

Which regards to market area, the survey data reveals that 78.7 per cent of the surveyed MSMEs focused their business activities inside the country, with 29.9 per cent having an urban scope, 5.5 per cent at rural areas and the balance 43.3 per cent are reachable nationwide. It can be also observed that the percentage of enterprises catered on global markets accounted only 21.3 per cent, suggesting that Malaysian MSMEs are more likely to cater on domestic and national markets than to expand activities in globally. This may imply that MSMEs in Malaysia are highly dependent on local and national markets.

### 4.3 Application of Digital Marketing

From the 361 responses, 175 were adopters, representing 48.5 per cent of the sample and 186 were non-adopters cases, representing 51.5 per cent respectively. The level of digital marketing adoption among Malaysian MSMEs is moderately low. This may suggest that the rate of digital marketing adoption and applications among Malaysian MSMEs are still far behind as compared to the current 67 per cent of Internet users in Malaysia as reported by MDEC (2017).

**Table 3:** Adopters and Non-adopters of MSMEs (n=361)

Status	Frequency	Percentage
Adopter	175	48.5
Non-Adopter	186	51.5

#### 4.4 Digital Marketing Tools Use by Adopters

Table 4 shows the common tools and components of digital marketing application by the MSMEs adopters. Majority of the adopters used social media (167/175 = 95.4%) in running the business. One hundred and ten (110) enterprises or 62.9 percent were found to use E-mail marketing, while digital content tools such as YouTube, blogs or website were the third most widely-applied platform used by MSMEs in Malaysia, with slightly more than half (52%). E-commerce platforms such as Lazada, Alibaba or Mudah.my ranked the least applied digital marketing tool in the country (25.1%) indicating that most Malaysian MSMEs were still running their business via the conventional brick and mortar concept.

**Table 4:** Digital marketing tool and components used by adopters (n=175)

Tools	No. of adopters	Percentage
Social Media	167	95.4
E-mail Marketing	110	62.9
Digital Contents	91	52.0
E-commerce	44	25.1

#### 4.5 The Purpose of Using Digital Marketing Tools and Components

A multiple-response question was asked to the adopting enterprises aimed to elicit information on the purpose of using digital marketing tools and components. The result shows that, information sharing (88.6%), communication with customers (85.7%) as well as advertising and promotion (81.7%) respectively were found to be the key motives for using digital marketing applications. This may give indication on why social media platforms dominating Malaysian MSMEs as it may provide them with these purposes. This may also suggest that most Malaysian MSMEs consider digital marketing as a tool to create awareness among consumers about their products and services by sharing useful information. It is interesting to note that more than half adopters used digital marketing to gain benefits from branding (61.1%), getting referrals (61.1%), receive customers feedback (61.1%), develop customer relations (60.6%) as well as to reach new customers (58.3%). A smaller percentage of adopters use digital marketing tools and components to enhance both their customer service activities and conducting market research with only 34.9 per cent and 29.7 per cent respectively. This might also reveal lack of knowledge among MSMEs' owner-managers on data manipulation skill sets for effective marketing plan and strategy for their businesses – Refer to Table 5.

**Table 5:** Purposes of digital marketing application among adopters MSMEs (n=175)

Purpose	No. of adopters	Percentage
Information sharing	155	88.6
Communication with customers	150	85.7
Advertising and promotion	143	81.7
Branding	107	61.1
Getting referrals	107	61.1
Receive customers feedback	107	61.1
Develop customer relations	106	60.6
To reach new customers	102	58.3
Customers service activities	61	34.9
Conducting market research	52	29.7

#### 4.6 Non-adopters intention to adopt digital marketing

The non-adopters as the second group of respondents were asked question related to their adoption intention plan. As has been previously mentioned, 51.5 per cent or 186 of the surveyed MSMEs did not have a digital presence. These MSMEs were asked to state their intention plan with regards to adoption, making clear whether they intended to adopt or not. Just over 60 per cent of the nonadopters stated their intention to adopt digital marketing as shown in Table 6 below, indicating a moderate of digital marketing adoption rate in the region.

#### 4.7 Timeline to adopt digital marketing among MSMEs non-adopters

All the 112 intended non-adopters were then asked their intention timeline to adopt digital marketing in the near future and surprisingly, only 21.4 per cent of them intended to do so within a year as stated in Table 7. demonstrating a

very slow time rate required for Malaysian MSMEs to adopt digital marketing applications in the near future. However, majority of them (35.7%) were intended to adopt in between 13 to 18 months period and about 28.6 per cent of non-adopters will take longer than 24 months to apply digital marketing while 14.3 per cent of them have no plans at all. Thus, it can be summarized that the number of late adopters (85.6%) were more than those laggard group (14.3%), which means MSMEs in this state are in the process of adopting digital marketing application. Thus, continuous encouragement should be given to them to speed up the adoption process.

**Table 6:** Intention to adopt digital marketing applications among non-adopters (n=186)

Non-adopters	Frequency	Percentage
Has Intention	112	60.2
No Intention	74	39.8

**Table 7:** Timeline for non-adopters to adopt digital marketing (n=186)

Duration	Frequency	Percentage
Less than 6 months	27	14.3
6-12 months	13	7.1
13-18 months	66	35.7
More than 24 months	53	28.6
No plan	27	14.3

#### **4.8 Barriers to adopt digital marketing among non-adopters MSMEs**

Many barriers to adopt digital marketing were listed in the survey questionnaire. Enterprise “does not know how to best utilize digital marketing in business”, “not enough resources (time, monetary, employee and external support)” as well as “not enough skills and knowledge to implement digital marketing”, reported by 46.2 per cent of the non-adopters, indicating that most Malaysian MSMEs were lack of awareness especially knowledge and internal resources to apply this type of technology. “Our customers do not require us to apply digital marketing” and “the enterprise just not interested to adopt digital marketing” were two other major barriers that were identified with 42.3 per cent and 33.3 per cent of cases respectively. No benefit gaining from using digital marketing was also mentioned by respondents as a barrier to apply digital marketing in their enterprises as well as the enterprise can do well without digital marketing, but with less reported cases of 20.5 per cent and 16.7 per cent respectively as recorded in Table 8. The lowest response barriers to hinder the adoption of digital marketing application was the non-adoption by their competitors with just 5.13 per cent only.

**Table 8:** Barriers that hindered the adoption of digital marketing applications (n=186)

	Frequency	Percentage
Does not know to utilize digital marketing	86	46.2
Not enough resources	86	46.2
Not enough skills and knowledge to implement digital marketing	86	46.2
Our customers do not require us to apply digital marketing	78	42.3
The enterprise just not interested to adopt digital marketing	62	33.3
No benefit gaining from using digital marketing	38	20.5
The enterprise can do well without digital marketing	31	16.7
Competitors do not use digital marketing	10	5.13

#### **4.9 Crosstabulation and Chi-Square Tests**

The Chi-square test indicates that the gender and age of business did influence the adoption levels amongst MSMEs whilst academic qualification, owner/manager age, business sector and annual sales did not influence the adoption level.

Table 9 shows a significant relationship between gender and digital marketing adoption. Male were found to be adopters and female be non-adopters. The Pearson Chi-Square value was 50.27 and significant ( $p=0.00$ ). This result contradicted with a study on adoption of e-commerce among SMEs by Ajay and Tobeng (2015).

**Table 9:** Digital marketing application and Gender (n=361)

		Gender		
		Male	Female	Total
<b>Digital marketing application</b>	Non-adopters	122	64	186
	Adopters	167	8	175
	Total	289	72	361

When digital marketing application was crosstab with organization age, it was found that adopters and non-adopters were significantly different. Surprisingly, adopters are those who are in business between 0-3 years while non-adopters are those in business for 4 and more years. The Pears on Chi-Square value was 7.903 and significant ( $p=0.005$ ). This finding explained that the new businesses are more willing to adopt digital marketing in their operation as compared to those older businesses. This result contradicted with a study on adoption of e-commerce among SMEs by Ajay and Tobeng (2015) – Refer to Table 10.

**Table 10:** Digital marketing application and Organization age (n=361)

		Organization Age		
		0-3 years	4 years and more	Total
<b>Digital marketing application</b>	Non-adopters	32	154	186
	Adopters	52	123	175
	Total	84	277	361

Table 11 however revealed the insignificant linear relationship between annual sales and digital marketing adoption. The numbers of adopters and non-adopters are dissimilar no matter whether the annual sales are less or more than 3 million. Majority of the adopters and non-adopters (more than 70%) earned annual sales less than three million. The Pearson Chi-Square value was 0.17 and insignificant ( $p=0.890$ ).

**Table 11:** Digital marketing application and Annual sales (n=361)

		Annual Sales		Total
		Less than 3 million	3 million and more	
<b>Digital marketing application</b>	Non-adopters	134	52	186
	Adopters	125	50	175
	Total	259	102	361

## 5. DISCUSSION

As mentioned earlier, the non-adopters (186) digital marketing application were more than the adopters (175) group. However, more than 80 per cent of the non-adopters were late adopters and about 14 per cent were laggards. Thus, the researchers have high confident that MSMEs in Malaysia will adopt digital marketing in their business even though a longer time (e.g. 3 years) is required for them to make an adoption. Related to these findings, the researchers agreed that there will be a gap between the adopters and non-adopters business performance. Those adopters will gain more benefits from the digital marketing they practiced as compared to those non-adopters segment who are slow in adopting the technology.

Even though adopters are using all digital marketing tools listed in the questionnaire, but most of them are using social media and e-marketing contents. Digital contents and e-commerce are less popular among them. Adopters also revealed that they are using digital marketing application for many purposes, however majority of them used digital marketing for information sharing, communication with customers and advertising via promotion.

For the non-adopters, more than 50 per cent of them will adopt digital marketing before two years. About 30 per cent will adopt after 2 years. Thus, within two years in the future, it is expected that the number of adopters of digital marketing will be more than the non-adopters. As such, aggressive encouragement should be given to non-adopters to



speed up the adoption process if the record of MSMEs adopters of digital marketing application in Perak state need to be increased.

When cross-tabulation analyses were performed, only two demographic variables found to have significant relationship with digital marketing adoption. Male entrepreneurs were group as adopters while female counterparts were group as non-adopters. To answer for this dissimilarity, the data revealed that many female entrepreneurs are operating the business for four years and more but the business size in average are small. Thus, the motivation for them to adopt digital marketing is slow. In addition to that, those who are new in the business be adopters in digital marketing. The best answer to support the finding is even though they are new in business, but they have knowledge about digital marketing and realized about the benefits offered by new technology to their business. Thus, they are eager to spent time and energy to implement digital marketing in day-to-day operation.

## 6. CONCLUSION

In Malaysia, MSMEs can be grouped into adopters and non-adopters. Adopters are those who are eager to apply digital marketing in their day-to-day operation while non-adopters are those who are less ready to adopt digital marketing, but some enterprises do have intentions to adopt the technology in the future. As to encourage the MSMEs to adopt digital marketing, more training and financial assistance should be given to them to speed up the acceptance of technology development in their businesses. Actions from departments concern should be taken immediately because about 46 per cent of the non-adopters stated that they do not adopt digital marketing due to three main barriers: 1) Does not know to utilize digital marketing; 2) Not enough resources; 3) Not enough skills and knowledge to implement digital marketing. MSMEs must be exposed on the strategic value of digital marketing in helping them to capture a bigger market both in local and global level. Due to that, future research should embark on the benefits of using digital marketing in capturing bigger customers, sales, market size and market share.

## 7. REFERENCES

- Abdullah, N. H., Wahab, E. & Shamsuddin, A. (2013). Exploring the common technology adoption enablers among Malaysian SMEs: Qualitative findings. *Journal of Management & Sustainability*, 3(4), 78–91.
- Ahmad, N.H., Suseno, Y., Seet, P.S., Susomrith, P., & Rashid, Z. (2018). Entrepreneurial Competencies and Firm Performance in Emerging Economies: A Study of Women Entrepreneurs in Malaysia. In *Knowledge, Learning and Innovation*. (pp. 5–26). Springer, Cham.
- Ahmad, S. Z., Abu Bakar, A. R., Faziharudean, T. M & Mohamad Zaki, K. A. (2015). An Empirical Study of Factors Affecting e-Commerce Adoption among Small- and Medium-Sized Enterprises in a Developing Country: Evidence from Malaysia, *Information Technology for Development*, 21(4), 555–572.
- Ajay, K. G. & Thobeng C. (2015). The adoption of electronic commerce by small and medium enterprises in Pretoria. *The Electronic Journal of Information Systems in Developing Countries*, 68(7), 1–23.
- Alam, S. S., Ali, M. Y., & Jani, M. F. M. (2011). An empirical study of factors affecting electronic commerce adoption among SMEs in Malaysia. *Journal of Business Economics and Management*, 12(2), 375–399.
- Aman, O., Tahir, M. N. H., Majid, I. A., Aziz, N. A. A. & Rahmiati, F. (2011). The success factors of food small medium entrepreneurs under the one district one industry programme: A case on food manufacturing entrepreneurs in Melaka. *Journal of Global Entrepreneurship*, 1(1), 44–64.
- Ang, C. L., Tahar, R. M., & Murat, R. (2003). An empirical study on electronic commerce diffusion in the Malaysian shipping industry. *The Electronic Journal of Information Systems in Developing Countries*, 14(1), 1–9.
- Araújo, J. B. & Zilber, S. N. (2016). What Factors Lead Companies to Adopt Social Media in their processes: Proposal and Test of a Measurement Model, *Brazilian Business Review*, 13(6), 260–290. <http://dx.doi.org/10.15728/bbr.2016.13.6.5>
- Bala Subrahmanya, M. H. & Mathirajan, M. & Krishnaswamy, K. N. (2010). Importance of Technological Innovation for SME Growth - Evidence from India. MERIT Working Papers 007, United Nations University - Maastricht Economic and Social Research Institute on Innovation and Technology (MERIT).
- Chiliya, N., Chikandiwa, C., & Afolabi, B. (2011). Factors Affecting Small Micro Medium Enterprises' (SMMEs) Adoption of E-Commerce in the Eastern Cape Province of South Africa. *International Journal of Business and Management*, 6(10), 28–36.
- Daniel, E. Wilson, H., & Myer, A. (2002). Adoption of E-Commerce by SMEs in the UK: Towards a Stage Model. *International Small Business Journal: Researching Entrepreneurship*, 20(3), 253–270. <https://doi.org/10.1177/0266242602203002>

- Drew, S. (2003). Strategic uses of E-Commerce by SMEs in the east of England. *European Management Journal*, 21(1), 79–88.
- Govindaraju, R., Wiratmadia, I. I., & Rivana, R. (2015). Analysis of drivers for e-commerce adoption by SMEs in Indonesia. Paper presented at the Interdisciplinary Behavior and Social Sciences: Proceedings of the International Congress on Interdisciplinary Behaviour and Social Sciences 2014.
- Hongyu, W., & Dongmei, Z. (2011). Internet technology's development and its positive role in promoting E-Marketing. *Energy Procedia*, 5, 6504–6507.
- International Telecommunication Union (2018). Retrieved June 12, 2018, from <http://www.w3.org/Graphics/JPEG/itu-t81.pdf>
- Kuan, K. K. & Chau, P. Y. (2001). A perception-based model for EDI adoption in small businesses using a technology–organization–environment framework. *Information & Management*, 38(8), 507–521.
- Lim, S. C., Baharudin, A. S. & Low, R. Q. (2017). Factors Influence SMEs in Malaysia to Adopt E-commerce: Moderating Roles of Perceived Strategic Value. *Journal of Engineering and Applied Sciences*, 12(6), 1566–1574.
- Malaysia Digital Economy Corporation (MDEC) (2017). Retrieved June 12, 2018, from <https://www.mdec.my/>
- Melewar, T., & Smith, N. (2002). The Internet Revolution: Some Global Marketing Implications, *Marketing Intelligence & Planning*, 21 (6), 363-369. <https://doi.org/10.1108/02634500310499220>
- Omar, A., Ramayah, T., Lin, L. B., Mohamad, O., & Marimuthu, M. (2011). Determining factors of the usage of web-based marketing applications by small and medium enterprises (SMEs) in Malaysia. *Journal of Marketing Development and Competitiveness*, 5(2), 70–86. <http://www.nabusinesspress.com/jmdcopen.html>
- Ozdemir, S., Trott, P. & Hoecht, A. (2008). Segmenting internet banking adopter and non-adopters in the Turkish retail banking sector. *International Journal of Bank Marketing*, 26(4), 212–236. <https://doi.org/10.1108/02652320810884777>
- Patrick, M. & Elaine, R. (2005). A Profile of Adopters and Non-adopters of eCommerce in SME Professional Service Firms. *Australasian Marketing Journal*, 13(1), 36–48.
- Pearson, J. M. & Grandon, E. E. (2005). An Empirical Study of Factors that Influence E-Commerce Adoption / Non-Adoption in Small and Medium Sized Businesses, *Journal of Internet Commerce*, 4 (4), 1-21.
- Rahayu, R. & Day, J. (2015). Determinant factors of e-commerce adoption by SMEs in developing country: evidence from Indonesia. *Procedia-Social and Behavioural Sciences*, 195, 142–150.
- Rahayu, R. & J. Day (2017). E-commerce adoption by SMEs in developing countries: Evidence from Indonesia. *Eurasian Business Review*, 7(1), 25–41.
- Ramayah, T., Ling, N. S., Taghizadeh, S. K. & Rahman, S. A. (2016). Factors influencing SMEs website continuance intention in Malaysia. *Telematics and Informatics*, 33(1), 150–164.
- Sawyers, R. (2011). The impact of new social media on intercultural adaptation: Honors Program at the University of Rhode Island.
- SME Corporation (2015). Definitions of SME by group. Retrieved July 3, 2018, from <http://www.smecorp.gov.my/index.php/en/policies/2015-12-21-09-09-49/smedefinition>
- Yeboah-Boateng, E. O. & Essandoh, K. A. (2014). Factors influencing the adoption of cloud computing by small and medium enterprises in developing economies. *International Journal of Emerging Science and Engineering*, 2(4), 13–20.