

# **Readiness of Small and Medium-sized Enterprises in Bangkok Metropolitan Area for Digital Economy\***

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## **Abstract**

The objectives of this research were to (1) assess the readiness of small and medium-sized enterprises (SME.) for the advent of digital economy (2) study the adaption of these companies' entrepreneurs toward this new platform. Target population under study were companies in Bangkok Metropolitan area that might have their names registered or not registered with the Department of Internal Trade. Samples included 400 such companies. Outcome of the study revealed that the scores on their readiness for organizational structure, budgeting, technology and resource were moderate while the score on personnel was high. On the other hand, entrepreneurs' adaptations to build customer relationship and to become business leader scored moderately while their effort to differentiate their products scored highly. Study of enterprises' readiness for digital economy showed that enterprises with different size of labor and different form of operation did not differ in their readiness. On the other hand, enterprises with different years of operation, amount of capital and type of business did differ in their readiness for digital economy at 0.05 level of significance.

**Keywords:** Readiness; Small and medium-sized enterprises; Digital economy.

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## Introduction

It is undeniable that, viewing current business situation, entrepreneurs from small and medium-sized enterprises have encountered various challenges in the form of more firms are competing in the same market and changing consumer's behavior. Statistics given by the Office of the National Broadcasting and Television Communications Commission(NBTC) shows that 5 years after 3G auction, the number of internet users rises rapidly from 23 million persons to 43 million persons. The major reason for the increase has been the rise in internet connection via smart phone than via personal computer. Although the majority of activities are concentrated on entertainment and personal interests such as social Network, YouTube, E-Book and E-mail, a significant increase is a result from the growth in online shopping and financial transaction. Entrepreneurs, therefore, have been forced to face with the new type of marketing that relies on information technology to revolutionize their core of business, the whole value chain offered. In order to start digital-based business, one has to learn and understand E-Commerce. Although M(mobile)-commerce is the best way to reach the consumer but the best way to start M-commerce has to be based on E-commerce first. In order to build complete sale system , one has to create website, learn how to advertise through social media with the aid of internet. After linking M-commerce with E-commerce, one can synchronize the screen on the website and the screen on the customer's smart phone and make the connection more effective to reach the potential customers. Application development is one interesting choice that is convenient for customer who can click on their smart phone. Although mobile application is convenient and well-responsive to customer's use, there are some obstacles in the form of development cost and the ability to induce customers to download the application.

Although what have been mentioned above may not be too difficult for entrepreneurs to learn and begin business format that is consistent with digital economy. In order to cope with the change in customer's behavior and enhance the opportunity to reach the consumers , entrepreneurs must be ready and well-prepared. This can be achieved by understanding technology that fits for their type of business. This is better than doing nothing which will result in the stagnation or demise of his/her own business. The researcher is, therefore, interested in studying the readiness of SME. entrepreneurs in Bangkok Metropolitan area on their path to digital economy.

## Objectives of this research

1. To assess the readiness of SME entrepreneurs for digital economy.
2. To study the entrepreneurs' adaptation toward a new business platform.

## Scope of research

Content:- readiness

To be concentrated on 4 types of readiness, namely, organizational structure, personnel, budgeting, technology and equipment. adaptation

To be concentrated on 3 types of adaptations, namely, product differentiation, building customer relationship and business leadership.

Population and sample: Target population include all entrepreneurs who may have elected to register or not register the company with the Department of Internal Trade. Size of the sample used is 400 persons.

Location : Bangkok Metropolitan area.

Time: January-May, 2018.

## Benefits to be expected

1. The readiness of SMEs can be assessed.
2. The way the entrepreneurs of the companies adapt to a new business platform will be identified.
3. The result of this research will act as a guideline to augment the degree of readiness for entrepreneurs of all small and medium-sized enterprises.

## Operational definition

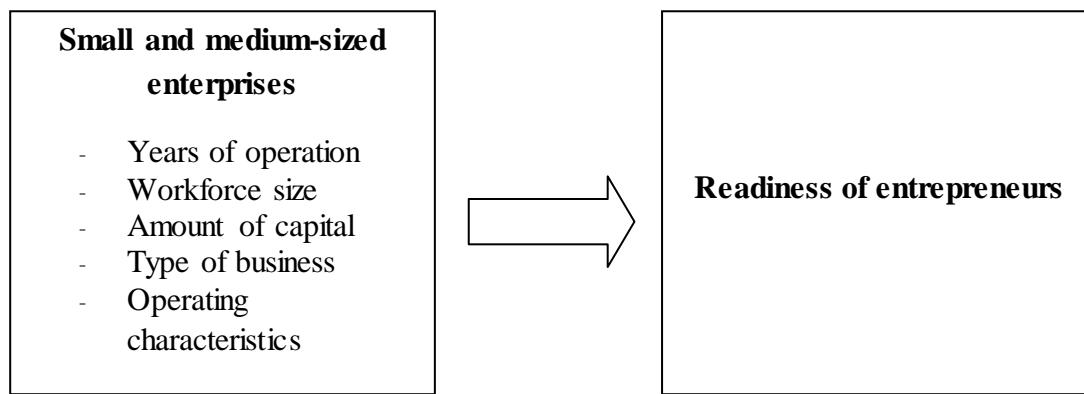
Readiness means preparedness of small and medium-sized enterprises in Bangkok Metropolitan area to cope with the change in the business environment. Readiness will be measured in 4 separate aspects-organizational structure, personnel, budgeting, technology and equipment.

Small and medium-sized enterprises(SMEs) mean firms formed as individuals, group of individuals or ordinary partnership, limited partnership, limited company, joint venture that manufactures, distributes products and services in Bangkok Area.

Adaptation means behavior that is modified in order to cope with a new situation or condition.

Digital economy means any effort to drive Thailand's economy with the aid of digital technology to increase productivity and yield, to save time and create value-added to products and services via the use of computer, smart phone and tablet that can communicate through the wireless broadband network.

## Research framework



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## Tool used in this research

The tool used to collect the data is a set of questionnaire that has been prepared after reviewing related documents, journals, textbooks and past literatures that are pertinent to the preparedness of the small and medium-sized enterprises. There are 3 steps involved in creating questionnaire. These are:-

1) extensive review on the concepts, theories and literatures is conducted. Later on, research framework and research objectives are formed.

2) using the research framework from 1) to draft a set of questionnaire which is divided into 4 separate sections.

Section1: A close - ended questions on fundamental factors of the firms-years of operation, workforce size, amount of capital, type of business, operational characteristics.

Section 2&3: questions about preparedness and adaptation on the part of company's entrepreneurs. Rating scale answers range from 1(lowest) 2(low) 3(moderate) 4(high) 5(highest) are employed using the following score assigned

highest	score assigned 5
high	score assigned 4
moderate	score assigned 3
low	score assigned 2
lowest	score assigned 1

section 4 : questions about problems faced, recommendation (if any). This is an open-end question. 3) Assess reliability of the questionnaire: A modified questionnaire that has passed verification of content validity by 3 experts in the field is used in a try-out test with 30 potential samples. Cronbach's Alpha is computed and turns out to be 0.865.

## **Data collection**

Convenience Sampling is to be conducted. Response to questionnaire can be done online by using online website provider <https://docs.google.com> . Distribution of questionnaire is to be performed via social media. Link to questionnaire is [https://docs.google.com/forms/d/e/1FAIpQLSfsgXTbju4WocRMrcTPjOYYwgjcKHa7zYqD3bXQWBNfl\\_xRA/viewform](https://docs.google.com/forms/d/e/1FAIpQLSfsgXTbju4WocRMrcTPjOYYwgjcKHa7zYqD3bXQWBNfl_xRA/viewform). Questionnaire is dispersed to samples through Facebook and line.

## **Analysis of data**

Quantitative analysis is employed with the aid of statistical software. Details on data analysis is as follows:-

section 1: Data on fundamental factors of small and medium-sized enterprises will take the form of frequency, percentage as well as associated interpretation of results.

section 2, 3: Data on readiness and adaptation to a new platform on the part of entrepreneurs will be rating scale using mean(x) and standard deviation (S.D.) together with interpretation based on the following scheme

Score	Interpretation
4.50-5.00	highest
3.50-4.49	high
2.50-3.49	moderate
1.50-2.49	low
1.00-1.49	lowest

## **Statistics used to analyze the data**

Statistics used to analyze the data include both descriptive statistics(percentage, mean, standard deviation) and inferential statistics( F-test or one-way ANOVA) and multiple comparison tests using LSD (least significant difference).

## Result

There are 36 firms with 1-5 years of operation (9 percent), 173 firms with 11-15 years of operation(43.2 percent) , 100 firms with 6-10 years of operation(25.0 percent) and 90 firms with more than 15 years of operation (22.8 percent). With respect to the size of the labor force, there are 35 firms with 1-30 persons(8.8 percent), 163 firms with 31-60 persons(41 percent), 125 firms with 61-90 persons( 31.2) and 61 firms with 91-120 persons . With respect to the amount of capital invested, there are 64 firms with capital less than 500,000 baht (16 percent), 109 firms with capital from 500,001-1,000,000 baht (27.2 percent), 94 firms with capital from 1,000,001-5,000,000 baht(23.5 percent), 86 firms with capital from 5,000,001-10,000,000 baht (21.5 percent) and 47 firms with capital exceeding10,000,001 baht (11 percent).

Study of SME. entrepreneur's readiness reveals that the score on organizational structure, overall, is moderate (mean= 3.49, S.D.=0.641 ). Consider separately in descending order of the mean , score on decentralization and delegation of power is high( mean=3.58,S.D.= 0.870), score on organizational structure that is conducive to digital economy is high (mean=3.56 , S.D.= 0.738). Finally, score on assignment of personnel to be responsible for smooth transition to digital economy is high(mean=3.53 , S.D. =0. .952.

Study of personnel reveals that the score on personnel , overall, is high( mean= 3.50, S.D.=0.590). Consider separately in descending order of the mean, score on value created by personnel is high (mean= 3.56, S.D.=0.779),score on the need to develop personnel's skills is high (mean= 3.55, S.D.=0.779.

Study on budgeting reveals that the score, overall, is moderate (mean=3.41,S.D.=0.728).Consider separately in descending order of the mean, score on the practice of having money transfer between individuals and departments in writing is high (mean= 3.53, S.D.= 0.875). Finally, the score on clear-cut separation of personal duty involved with monetary requisition is moderate( mean= 3.41, S.D.= 0.728).

Study on technology and resource reveals that the score, overall, is moderate (mean= 3.44,S.D.=0.613). Consider separately in descending order of the mean, score on allocation of resource to prepare operational process for the digital is high (mean = 3.60, S.D.=.832). The score on personnel's use of technology(computer, smart phone, tablet) to help while working is high (mean= 3.56, S.D.=0.864) . Finally, the score on promoting and developing innovation so as to enable the organization to be well-prepared for digital economy is high(mean=3.48, S.D.=0.849).

Study on SME. entrepreneur's adaptation by means of product differentiation reveals that the score, overall, is high(mean= 3.48 ,S.D.=0.697) . Consider separately in descending order of

the mean, the score on product's uniqueness is high (mean= 3.58, S.D.=0.837). Finally, the score on customer's ability to get a replacement for broken, inferior product is high(mean=3.57, S.D.=0.813).

Study of building customer relationship reveals that the score , overall, is moderate (mean = 3.08, S.D.= 0.568). Consider separately, in descending order of the mean, the score on customer's satisfaction and opinion is high (mean= 3.57, S.D.= .818). Finally, the score on introduction of product that corresponds to individual customer's demand is high (mean=3.55, S.D.=0.796).

Study of business leadership shows that the score, overall, is moderate (mean=3.34, S.D.=0.455). Consider separately, in descending order of the mean, the score on building relationship among suppliers of products and services is high (mean= 3.64, S.D.=0.874) . Finally, the score on development of its own brand is high (mean =3.36, S.D.=0.858 ).

Study of SME. entrepreneurs on their readiness based upon years of operation reveals that their readiness does differ (F-statistic =0.237, p-value = .045). Multiple comparison tests using LSD reveals that with respect to organizational structure, firms with 6-10 years of operation differ from firms with 11-15 years of operation and those with more than 15 years of operation. Multiple comparison tests reveal that with respect to technology and resource, firms with 6-10 years of operation differ from firms with 11-15 years of operation and firms with 11-15 years of operation differ from firms with more than 15 years of operation.

Study of SME. entrepreneurs on their readiness based upon the amount of capital invested shows that their readiness differ (F-statistic = 1.602 P-value = .037). Multiple comparison tests using LSD show that with respect to technology and resource, firms with capital in the range of 500,001-1,000,000 baht differ from firms with capital in the range of 1,000,001-5,000,000 baht and firms with capital in the range of 1,000,001-5,000,000 baht differ from the firms with capital in the range of 5,000,001-10,000,000 baht.

Study of SME. entrepreneurs on their readiness based upon their type of business reveals that their readiness differ(F-statistic=1.353, p-value=0.027).Multiple comparison tests using LSD show that with respect to the organizational structure, manufacturing firms differ from wholesale and service firms. Wholesale firms differ from retail and service firms. Retail firms differ from service firms. Finally, with respect to personnel, wholesale firms differ from retail firms and retail firms differ from service firms.

Study of SME. entrepreneurs' readiness based on different operational characteristics show that their readiness do not differ (F-statistic = 1.513 P-value = .198)

## Discussion

Study of SME. readiness on the part of entrepreneurs show that with respect to organizational structure, budgeting, technology and resource score moderately. This shows that although their readiness exist, this are not high enough. This is consistent with the survey conducted by the National Statistical Office of Thailand (2015) which shows that only 22.5 percent of those SMEs with 1-9 labor force use computer but only 18.3 percent of them use internet while 99.6 percent of large firms use computer and 99.1 percent of them use internet. Survey on sale of products and services through the internet shows that 2.6 percent of SME. Firms have online transaction. This may be due to the fact that these SME. Firms are worried about world economic fluctuations and local economic situation which make them cautious about their investment. On the other hand, they are interesting in digital technology startup which is a new platform that will drive the economy toward digital economy. On the other hand, SME. firms have the potential to use digital technology to initiate new type of business by taking advantage of commercialized digital technology. Readiness of SME. Firms in terms of personnel is high since governmental units have stimulated development of human capital during the past which enable our work force to be knowledgeable and skillful in their digital-era professions. A study by Yooprot (2013) on working values influencing the norms that govern the behavior of various generations reveals that working values of generation y, generation x and baby boomers are congruent. These values include understanding others, adaptation to change. On the other hand, a study by Saengsuk (2013) about differentiation strategy of OTOP, ceramic-based products in the lower part of Thailand's northern region reveals that product differentiation is influenced by personnel and image's differentials. On the other hand, the fact that the scores on SME. Entrepreneurs on adaptation to change, building customer relationship and business leadership which show moderate score is consistent with the study of Subhapolkulhun (2016) on the subject of SME. entrepreneurs on their adaptation to ASEAN free trade-the case of Songkhla province which shows that the score on adaptation is moderate. Furthermore, analysis of correlation between variables representing adaptation potentials reveals that all variables are positively correlated and significant at 0.05 level of significance.

## Suggestions

Governmental authorities involved should build confidence in digital technology by setting universal standards, laws and regulations that are effective in becoming the driving forces for the benefit of the economy and the society. Secured and safe use of digital technology should be provided to preserve the rights of all individuals in every sector so as to facilitate and

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eliminate any obstacle related to all digital activities so that integrated guidelines can be formed to accommodate the growth of digital technology in the future.

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