



Science and Engineering Symposium  
4<sup>th</sup> International Science, Social Science, Engineering and Energy Conference 2012

## Use of IT to Support Small and Medium Business in Bangkok and Perimeter

R. Yungkire<sup>a,\*</sup>, S. Chimmanee<sup>a</sup>, S. Chimmanee<sup>a</sup>

<sup>a</sup>*Department of Msitm-Online, Faculty of Information Technology, Rangsit University, Pharthumthani, 12000, Thailand*

---

### Abstract

The objectives of this research is to study the use of IT and need in additional IT to support small and medium businesses in Bangkok and perimeter. There are 80 SMEs for qualitative research by using questionnaires. From the result, it is found that SMEs use IT highly for supporting their businesses, especially computers and the E-mails. Additionally, a trend of IT usage is increasing. However, the need in usage of Tablets and Social Network is not high.

© 2013 The Authors. Published by Kasem Bundit University.

Selection and/or peer-review under responsibility of Faculty of Science and Technology, Kasem Bundit University, Bangkok.

*Keywords:* SMEs, IT, Tablet, Social Network, Smart Phone

---

### 1. Introduction

This paper studies about the use of ITs and the additional needs of it in the organization in order to promote the management performance of SMEs both in Bangkok and perimeter area. The researchers have conducted this research to 80 of business owners and their staffs in Bangkok and perimeter and have used quantitative methods, survey and questionnaires. The study found that the observed business has no relation with Computer, Printer, Internet, Smart Phone (i.e. Iphone, BB), Tablet (i.e. Ipad, Sumsung, Galaxy, Huawai), Social Network (i.e. Facebook, Twitter), and the use of software to control the account system in the business. However, some types of business affect the use of LAN system and the use of software to control personnel management, which shows statistically significant level of .05. In addition, different kinds of SME businesses affect the use of IT in the future. For the need in the future, it shows that Service Sectors will become the highest users of ITs and still in the need of the use of Social Network and personnel software. However, manufacturers and retailers have used IT the least (only 61.21 %). This result in the additional needs in the future is the highest compared to others. Website and LAN system will be in high demand. In overview of all businesses, the usage of computers is the highest and the usage of Tablets is the lowest. SMEs in Bangkok and perimeter use ITs a lot and many businesses are bringing these technologies to their businesses. Besides they want the government sector to assist and support them in this area.

---

\* Corresponding author. *E-mail address:* [zunma2002@gmail.com](mailto:zunma2002@gmail.com)

### 1.1. Theory and Related Research

The critical problem an enterprise widely faces is the internal mismanagement of the high executives in the organization itself. These executives still lack knowledge, experiences and management overviews of the organization especially for new organizations [1]. Government sectors must improve work relations with SMEs by contributing more and developing an infrastructure and advanced technologies to meet their requirements. The new IT should facilitate the use of communication network so those SMEs can easily access the system; for example, by providing online accounting system that could be very beneficial. For this reason, those SMEs can reduce cost of hiring employees [2]. The interaction between government sector involved and SMEs should be in the right direction if the government develops a new technology which can meet the requirement of SMEs so they can have an advantage in the competitive market. In the meantime, government should also train their staffs in this field so they can utilize this knowledge efficiently [3]. Measure of Revenue code is not clear enough and needs to be adjusted and improved. The content of the law, the corporate income tax specifically, has to be increased and adjusted so it can solve the consistent condition of the problems [4].

### 1.2. FRAMWORK FOR RESEARCH

The relationship of the variables used in this study are as in the following diagram

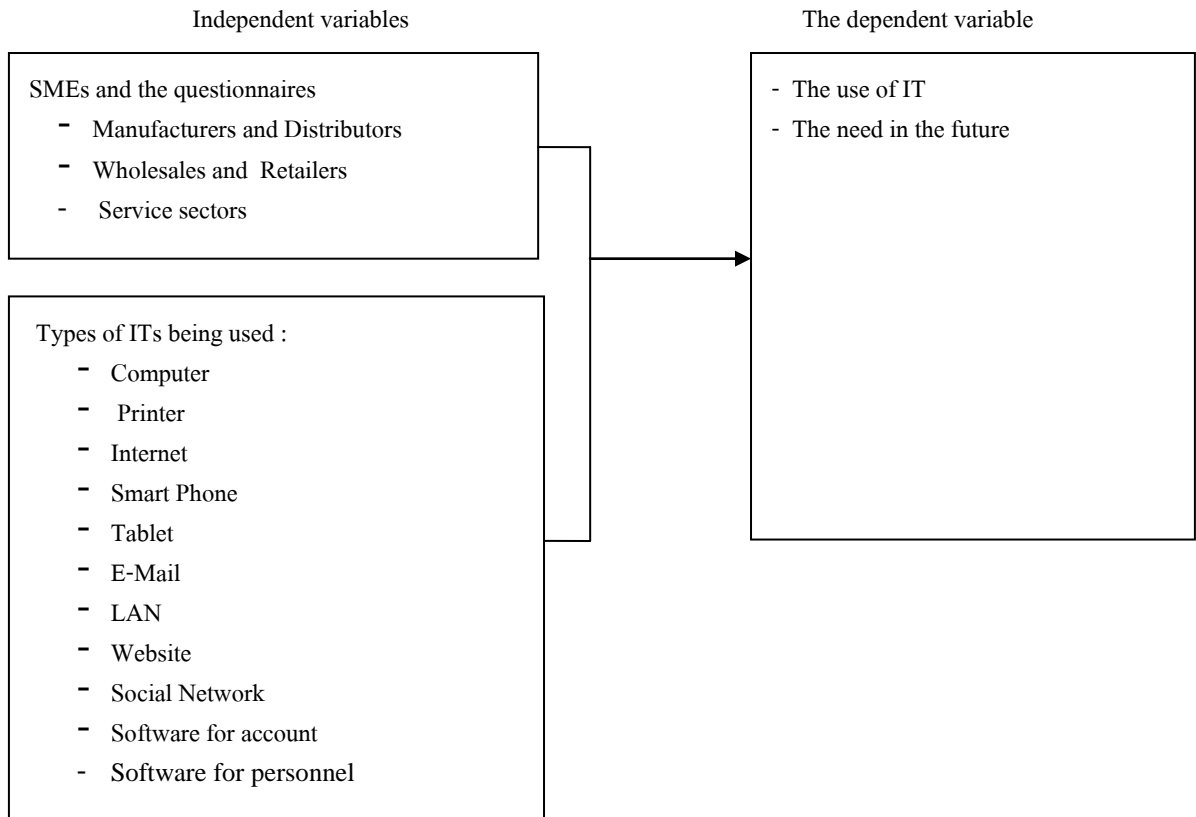


Fig.1. The relationship between variables used in the study

### *1.3. Analysis Hypothesis*

1. Different SMEs need to use different IT.
2. Different types SMEs that are not available IT need to use different IT in the near future.

### *1.4. To Conduct Research*

Population and sample conducted for this research consists of 80 of SMEs in Bangkok and perimeter and are shown as below:

- 31 of Manufacturers and distributors
- 15 of Wholesalers and retailers
- 34 of Service sectors

### *1.5. Tools Used In Study*

The researchers have used questionnaires as tools to collect data. The researchers have established the questionnaires by studying from the objectives and conceptual framework and from the researches of other researchers listed in the reference section. These are being used as guidelines to establish the questions and the closed and open ended queries in the questionnaires.

## **2. Data Analysis**

After the questionnaires are being gathered, the researchers have used coding to process the data and use SPSS for Window to store the data. Statistics used in the research regarding factors related to SMEs applied descriptive statistic and use the method of Analysis of frequency distributions and percentages.

The Chi-square test result in the analysis used to test the hypothesis shows the conclusion explained in the next section.

## **3. Result Of the Research**

This study is concerning the needs of the use of ITs for supporting SME's management performance in Bangkok and the perimeter. The analysis to test the hypothesis by using Chi-square test can be summarized as follows:

*3.1* Different types SMEs which need to use Computer, Printer, Internet, Smartphone, Tablet, E-mail, Website, Social Network, Software Accounting are not significant, However, the need to use Lan Software is significant at level of .05

Table1. Analysis of the different SMEs need to use different IT , and the different types SMEs that are not available IT need to use different IT in the near future.

(Chi-Square)

The types of IT In SME's	Types of Business			$\chi^2$	p
	Manufacturers & Distributors	Wholesalers & Retailers	Service Sectors		
1. The Use of Computers				1.601	0.449
Yes	30	15	34		
No. But there may be its need in the future	1	0	0		
2. Printer				5.378	0.251
Yes	30	13	32		
No. But there may be its need in the future	1	0	0		
3. Internet				1.776	0.411
Yes	30	13	32		
No. But there may be its need in the future.	1	2	2		
4. Smart Phone				7.270	0.122
Yes	16	7	25		
No. But there may be its need in the future	6	1	2		
5. Tablet				3.018	0.555
Yes	14	4	16		
No. But there might be its demand in the future.	6	2	5		
6. LAN System				11.633	0.020*
Yes	25	9	33		
No. But there may be its need in the future	2	3	1		
7. E-mail				1.793	0.774
Yes . there are incoming and outgoing EMAILS	30	14	32		
No. But there may be its need in the future	1	1	1		
8. Website				5.923	0.205
Yes	23	7	26		
No. But there may be its need in the future	7	6	5		
9. Social Network				3.235	0.519
Yes	14	8	20		
No. But there may be its need in the future	6	2	8		
10. The Future of Software for maintaining Accounts				8.115	0.087
Yes	23	7	26		
No. But there may be its need in the future	2	1	4		
11. Personnel Software				11.630	0.020*
Yes	17	4	21		
No. But there may be its need in the future	3	2	8		

The probability for a significant statistic .05

$p$  equals to the probability for a significant Statistic  
 $\chi^2$  equals to Chi – Square

3.2 Different types SMEs that are not available IT and need to use Computer, Printer, Internet, Smartphone, Tablet, Email, Website, Social Network, Software Accounting in near future is significant. However, the need to use LAN Software personal is not significant in the near future.

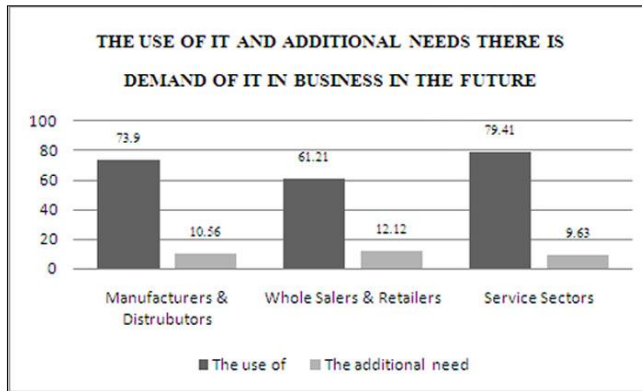


Fig. 2. The Use Of I.T. and additional needs there is demand of I.T. in business in the future

The Fig. 2 can explain the results of the study that the service sectors use ITs the most 79.41% and the second is the Manufacturers & Distributors 73.9% and less is the whole salers & Retailers 61.21% However in the future is deposit result because the wholesalers & Retailers additional needs in the future the most 12.12% and the second is Manufacturers & Distributors 10.56% the least is service Sectors 9.63%.

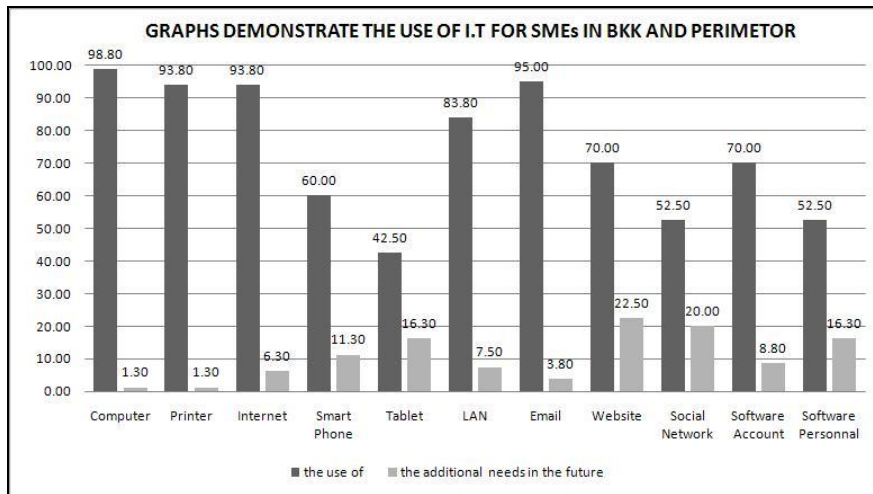


Fig. 3. Graphs Demonstrate the use of I.T. for SMEs in Bkk and Perimetor and the Additional needs in the future

The Fig. 3 shows that computers and the E-mail are used the most in business organizations 98.80 %, However the Tablets are used the least 42.50%. And explains that Website will use the most 22.50% in the future and Computer and Printer will be used the least 1.30 %. This indicates that it is possible that business the importance of Internet and will use Website and Social Network as a channel to access the information.

The use of ITs separated by types of business and types of ITs as shown follows:

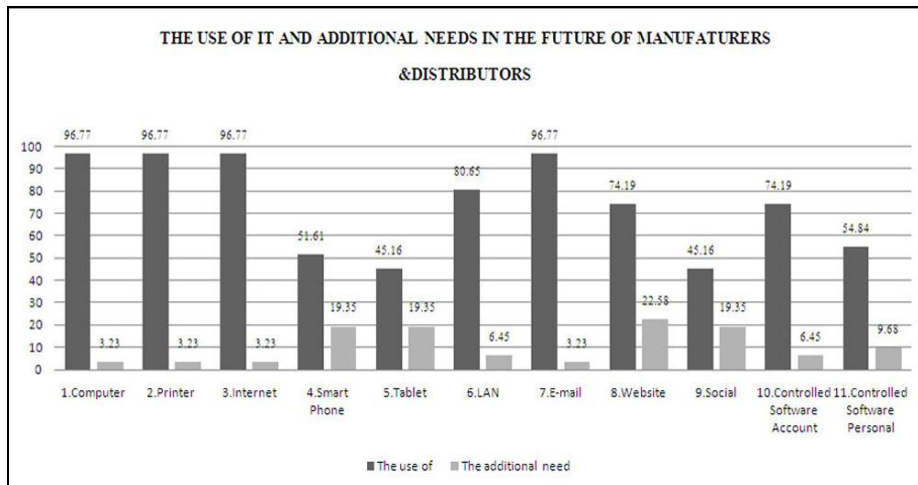


Fig. 4. The use of I.T and the additional needs in the future in business type manufacturers

The Fig. 4 explains the results of the study that the Manufacturer & distributor the computer, printer and Internet the most 96.77% and used the Tablets and Social Network least 45.16% The additional needs in the future is Website 22.58% will be in great demand in the future.

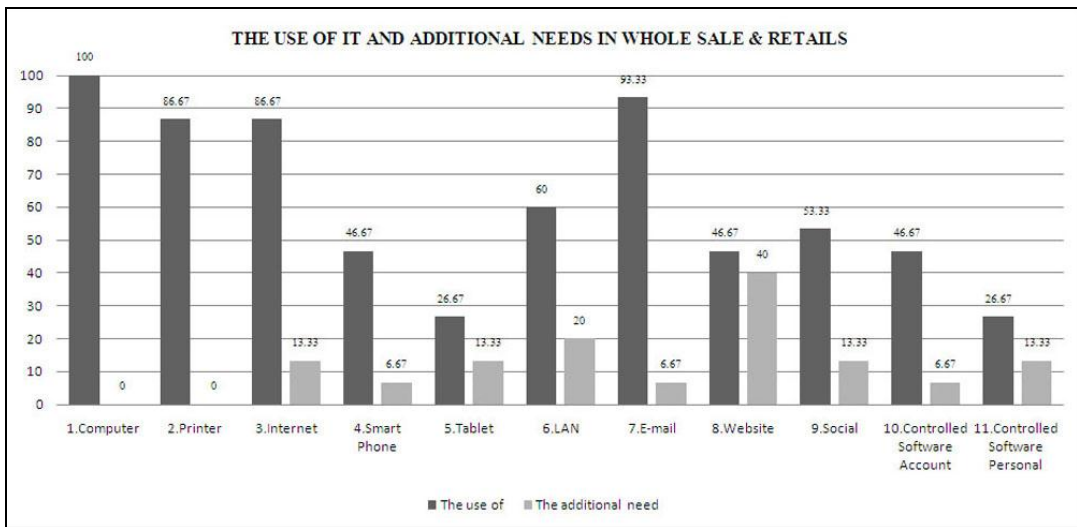


Fig. 5. The use of I.T and the additional needs in the future in business type wholesale & retailers

The Fig. 5 explain the results of the study that the Wholesale & Retailers the computer the most 100% and used the Tablets least 13.33% .The additional needs in the future is Website 40% will be in great demand in the future.

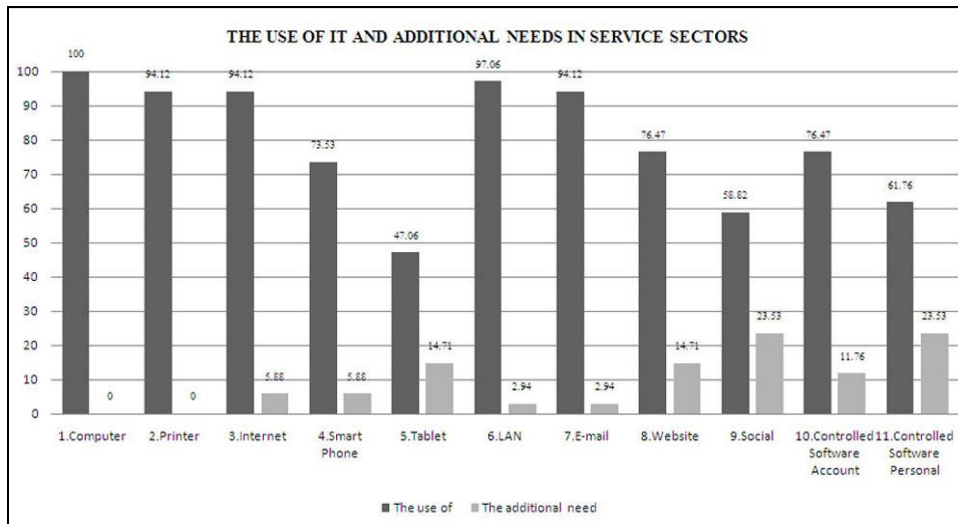


Fig. 6. The use of I.T and the additional needs in the future in business type service sectors

The Fig. 6 explain the results of the study that the Service sectors use the computer the most 100% and used the Tablets least 47.06% . The additional needs in the future is Social Network ,Software Personal 23.53% will be in great demand in the future. But the least is LAN and Email 2.94%

#### 4. Conclusion

This research's objective is to study the use and additional use of ITs of SMEs in Bangkok and perimeter to enhance their management. The researchers have conducted the study to 80 entrepreneurs and their staffs both in Bangkok and perimeter. The method used in this research is quantitative research, survey and questioner.

Pictures 4-6 can explain the results of the study. It shown that the service sectors use ITs the most and that the needs of using Social Network such as Facebook and Twitter and software controlling staffing will be in great demand in the future. It is also shown that computers are the tolls used for enhancing their management performance, but they rarely use the Tablet. On the other hand, wholesales and retails will definitely bring this technology to their businesses as the trend in this area is increasing highly day by day. The study result also shows that only 61.21% of these enterprises use IT though they hope that Website and LAN will be introduced in their businesses soon. It is also found out that there are many newly established enterprises which face problems of internal mismanagement as many of their high executives are still lacking the true knowledge of the overviewed management [1].

If they ever realize that this technology can improve their performances, it will definitely be very beneficial for them because this IT can enhance their activities quickly, and can enhance the speed and accuracy of their decisions [2].

#### Suggestions

1. The models of SMEs used in this research for selecting Types of IT with SMEs can be upgraded
2. The Delphi technique can be applied for future research
3. More samples should be used in the next research
4. Future research can be conducted in other parts of Thailand.

## **References**

- [1] Somchai Shoesakol” Improvement for small organization through quality control ISO 9001 2000” Case study of TKS presition Co.Ltd Master of Engineering and Industrial Management University of Technology Prajomkhlo pranakornnone.
- [2] Wannawat ohpaswattana “Government policies to solve problems and promote small and medium enterprises” A case study of the manufacturing industry Master of Arts Ramkamhaeng University, 2005:159-160
- [3] Chareonchai chimnium “SMEs and Economic development of Thailand” Master of Economic Ramkamhaeng University 2004: 126-127
- [4] Kosoul kaulbulsong “Tax measures to promoteSMEs” A case study in corporate income tax measures Master of Law Ramkamhaeng University 2003:205