WEBSITE FOR ONLINE SELLING IMPLEMENTATION AMONG SMES IN MALAYSIA

Noor Azuan Hashim, Ph.D.
Nor Liza Abdullah, Ph.D.
Zafir Mohd Makhbul, Ph.D.
Senior Lecturers - Faculty of Economics and Management – Universiti Kebangsaan
Malaysia - 43650 UKM Bangi - Selangor, Malaysia

ABSTRACT

Innovation adoption literature has demonstrated that organisational characteristics and perceived benefits of innovations play significant roles in explaining organisational-level decisions to adopt new technologies. However, the extant literature relating to small and medium enterprises (SMEs) website adoption fails to provide an understanding of what determines adoption. This paper reports descriptive study conducted to identify the factors that impact SMEs' involvement with websites. Nine factors such as to lower cost, to eye new business opportunities, to enhance company image, to follow trend, we must have it, just by chance, guts feel, external pressure, and to stay ahead competitors, which were found in the literature are used to investigate the level of website involvement. This involvement is examined in terms of ownership of a website and use of the website for selling purposes. A survey of 3535 SMEs was conducted, 522 SMEs responded for the survey; however, only 309 have used website for the purpose of online selling. In addition to the survey, ten SMEs were chosen from 309 for semi-structured interviews. The results suggest that specific factors contribute to the SMEs' involvement with the Internet – enhance company image, following the trend, and customer pressure influence website for online selling implementation. The key contribution of this article to current knowledge is the interpretation of understanding of what determines SMEs website adoption, supported by the literature.

KEYWORDS

Technology adoption, SME characteristics, SMEs, Internet, websites

1. INTRODUCTION

The term website used for online selling has emerged as a significant topic in the literature, especially since the Internet started to be used commercially in the early 1990s and now becoming rapidly, particularly with existence of Web 2.0 applications, such as Facebook, twitter, and blogs. Intense competition in both international and domestic markets has placed pressure on companies to improve their firms' quality, cost of products and services, management practices, and operations. In order to survive, the Organisation for Economic Co-operation and Development (OECD) therefore suggested small and medium enterprises (SMEs) in developing countries to fully utilise ICT, such as adopting e-commerce, particularly websites, for business transactions (OECD, 1997).

Studies show that many SMEs have already started to implement website in their businesses because of the benefit that they may get from it (Daniel, 2003; Macgregor and Vrazalic, 2007; Scupola, 2009, Oliveira and Martins, 2011). However, to what extent has SMEs adopt websites is still uncertain. Hence, many of the literature on website adoption has mainly focused on the identification of factors affecting SMEs in adopting website, such as the determinants of, and constraints for, website adoption by SMEs (e.g., Abell and Lim, 1996; Poon and Swatman, 1998; Kendall *et al.*, 2001; Daniel *et al.*, 2003; Ordanini, 2006; Alam, *et al.*, 2007). Some researchers explore the internal and external factors that facilitate the website adoption, while others focus on technological, organisational, and environment characteristics that may have influenced SME managers to adopt websites (e.g., Poon and Swatman, 1999; Daniel, 2003; Scupola, 2009, Oliveira and Martins, 2011). Although some of these factors may have contribute to the understanding of SMEs adopt website, there are still very limited studies on other unexplained factors such as to enhance company image, website is nice to have, or following the trend of why SMEs adopt technologies, particularly websites (Corbitt and Thanasakitt, 2002). Thus, there is a need to understand these factors SMEs adopt websites. This paper seeks to address this gap in the current literature.

2. BACKGROUND

2.1 Small and Medium Enterprises (SMEs)

SMEs play an important part in the economic activities of most nations (Storey, 1994). There are numerous examples in the literature that illustrate the weight that SMEs carry in their own national economies. In most European countries, SMEs constitute more than 90% of businesses (OECD, 1998; 2000; Scupola, 2003). In Malaysia, SMEs form the bulk of firms in the country and they play a critical role in the country's industrialisation. They account for more than 95% of total establishments in Malaysia (Malaysia, 2007).

Although SMEs are being faced with a number of constraints because of their size (Curran and Blackburn, 2001) they are more flexible than large firms. Their small size allows for an efficient and informal communication network, they are able to react quickly to any shift in the market place, and their lack of bureaucracy lets them implement change easily (Rothwell, 1991; Storey, 1994). Research in both Europe and the US (Johnson and Cathcart, 1979; Rothwell, 1991) shows that SMEs are more responsive to market needs than large firms, more adaptable to change, and more innovative to meet customer demand.

There are two common ways of defining SMEs found in the literature. One is the definitions based on financial turnover and the other is the definitions based on number of employ (Curran and Blackburn, 2001). Employment size is considered more objective and transparent compared to turnover (Curran and Blackburn, 2001), and also more practical as "information about employment is readily available and … considered by managers to be less confidential" (Pratten, 1991, p.93; Mohd Osman, 2001). Consistent with Ismail and King (2007), for this study, an SME is defined as a firm employing 10 to 250 employees.

2.2 Website for Online Selling

Online buying and selling are two common components to describe electronic commerce (e-commerce). However, they focus on two different niches. Buying is the activity that relates *to the purchase of goods or services from suppliers, whereas* selling is more towards 'customer-focus', which is *to sell goods and services to customers* (Daniel and Wilson, 2002). In the Internet environment, a firm which wants to sell online needs to invest in it, not only time and energy, but also cost for displaying firm's information, products and services (Houghton and Winklhofer, 2004). It needs to display and surrender the items, and usually how to make themsellable (Carmon and Ariely, 2000). Buying online, on the other hand, does not need investment but firms need to be connected online to purchase items. The focus of this paper is to understand SMEs' view in adopting website to sell their products and services, not buying. Thus, buying online, e-commerce in general, is not included in this paper.

Researchers have investigated various website activities (e.g., Daniel *et al*., 2003; MacGregor and Vrazalic, 2007). Among those investigated are simple website activities such as having online brochureware and online catalogue (with and without prices) (Pool *et al*., 2006), or more complex website activities, such as website with customer relationship management and supply chain management facilities (Brown and Lockett, 2004). Consistent with some studies (Daniel, 2003; Scupola, 2009), this study also investigates the extent of website usages in term of website activities explained in Table 1. More complex website activities are not included because they were rarely used by SMEs (Pool *et al*., 2006).

Table 1. Website activities

Activity	Statement
Online brochure	Online brochureware is a website activity that distributes static company information in one-way broadcasting fashion (Le and Koh, 2002). Through this activity, firms can market themselves by displaying company information on the website (Daniel, 2003).
Online catalogue	This activity is helpful in providing customers with information about a firm's products and services, news and also company events, at no cost (Teo and Yujun, 2003).
Online enquiries	Firms can also provide information about their companies, and their products and services to customers and potential customers by providing a link on the firm's website to enable customers to inquire for information (Teo and Ranganathan, 2004).
Online ordering	An order form/page is posted on the website to indicate the seller's intention to sell items online (Daniel, 2003; Scupola, 2003).
Online payment	Online payment refers to real-time payment embedded on websites. Many firms are advised to make online payment available on their websites so that customers can order and finally pay online (Raymond, 2001).

2.3 Reasons that Influence for Website Implementation

Most studies on website adoption focus on the facilitators that may have influenced SME managers to adopt e-commerce (Poon, 2000; Daniel *et al.*, 2002; Quayle, 2002; Daniel, 2003; Drew, 2003; Lertwongsatien and Wongpinunwatana, 2003; Michalak, 2003; Scupola, 2003). Thus, literature review on this study were taken from the studies of e-commerce. But, there are still only limited studies on reasons why SMEs adopt technologies, particularly website (Corbitt and Thanasakitt, 2002).

Corbitt and Thanasakitt (2002) suggest that reasons why SMEs adopt e-commerce are not necessarily factors that facilitate the adoption. The reasons for adoption may simply explain why an SME made that particular decision (Corbitt and Thanasakitt, 2002). In her study of seven SMEs in Italy particularly website, Scupola (2003) found that one of the reasons why SME managers adopted e-commerce was unanticipated, an adoption she termed 'just by chance'. The 'just by chance' adoption of e-commerce is more a reason for the adoption rather than a facilitating factor in e-commerce adoption. In the same vein, the term 'guts feel' coined by Quayle (2002) is more applicable as a reason for e-commerce adoption rather than as a factor that encourages e-commerce adoption among SMEs. In their interview of SMEs in Australia, Corbitt and Thanasakitt (2002) found reasons given by SMEs there to adopt e-commerce were 'it is the way to go' and 'to follow the trend. Table 2 shows some potential explanations that can be considered as reasons why SMEs adopt e-commerce found in previous studies. Some of these reasons could also serve as factors of e-commerce adoption. For example, Corbitt and Thanasakitt (2002) found that 'government pressure' was the reason why SMEs adopt e-commerce, while Scupola *(*2003) claimed that it was a factor that facilitates e-commerce adoption.

Table 2. Reasons for SME managers to adopt e-commerce

Reasons to adopt	Reported by
To lower cost	Daniel and Grimshaw (2002), Simpson and Docherty (2004)
To eye new business opportunities	Daniel and Grimshaw (2002)
To enhance company image	Abell and Lim (1996), Poon and Swatman (1998), Quayle (2002)
To follow trend	Corbitt and Thanasankit (2002)
We must have it	Corbitt and Thanasankit (2002)
Just by chance	Scupola (2003)
Guts feel	Quayle
External pressure	Mehrtens *et al. (*2001), Daniel and Grimshaw (2002)
To stay ahead of competitors	Daniel (2003), MacGregor and Vrazalic (2007)

3. CONCEPTUAL FRAMEWORK

In this study, an extension of the innovation model is proposed. This conceptual framework is based on the seminal work of Rogers (1989), and Tornatzky and Fleischer (1990), and Corbitt and Thanasakitt (2002). The original framework incorporates SME managers and SME demographic characteristicsand reasons to website implementation. However, for the purpose of this article, only reasons for website implementation will used in the framework. Figure 1 shows a graphical representation of the study's conceptual framework.
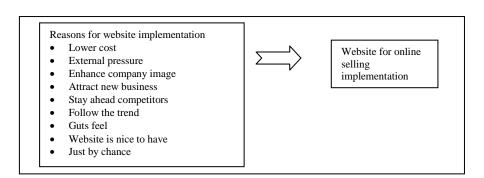
Reasons for website implementation
• Lower cost
• External pressure
• Enhance company image
• Attract new business
• Stay ahead competitors
• Follow the trend
• Guts feel
• Website is nice to have
• Just by chance

Website for online selling implementation

Figure 1.

4. METHODOLOGY

The data for this paper have been gathered by means of a large-scale survey to SMEs all across Malaysia**.** In addition to the survey, interviews were also carried out with SME managers who used website for online selling in their businesses. A total of 3535 SMEs with 10 to 250 employees was selected. The questionnaires were sent directly to the owner/managers by post.

In the second stage, face-to-face semi-structured interviews with SME managers were conducted. The SME managers were chosen randomly from the list of respondents who returned the survey. Ten interviews were carried-out with SME managers. All these interviews were tape recorded using a digital recorder, and were then transcribed. Quotes that were relevant to issues being studied were selected.

5. FINDINGS

5.1 Respondent Profiles

A total of 3,535 questionnaires were sent to SMEs in Malaysia. 522 SMEs questionnaire were found to be useable for the data analysis. Surprisingly, 514 SMEs (98.5%) have an Internet connection and most of them were using the Internet for the past ten years. Many respondents are above forty years old (59%), and as expected most of them are male. One interesting finding is that most respondents in this survey are at least a diploma holder (70%), which indicating the SME managers in this survey are well-educated. Table 3 displays the respondent characteristics.

Table 3.Respondents' characteristics

Position		Age	
Managing Director	40%	21-30	15%
Manager	37%	31-40	26%
Owner	12%	41-50	32%
Others	11%	Above 50	27%
Gender		Education	
Male	73%	Primary	2%
Female	27%	Secondary	18%
Ethnicity		Diploma	20%
Chinese	66%	Bachelor	45%
Malay	27%	Postgraduate	15%
Indian and others	7%		

5.2 Website Adoption

309 of the survey respondents state that their firms have websites. Of these 309, more than four-fifths have had websites more than ten years. Almost 20% rarely update or maintain their websites. Half of the managers interviewed stated that they need not have to update their frequently:

> "Why bother to update or maintain the website so often? We have
> included all the information required by our customers about our
> firm. We only have it updated if it is necessary to do so."(SME
> managing director from firm IX). "We don't see the relevance of
> updating our website frequently. We don't have time to do that."
> (SME manager from firm IV).

Though many of these SMEs have had websites for more than 3 years (almost 90% of those with websites), they are used for little more than providing contact details for the firm and information about the firm's goods and services. Table 4 shows the breakdown of website activities of these Malaysian SMEs.

Table 4. Website activities of SMEs (n=309)

Website activities	Percentage
Online brochure ware	85%
Online catalogue (without prices)	92%
Online catalogue (with prices)	12%
Online enquiries	47%
Online ordering	19%
Online payment	5%

Four SMEs (during the interview), which allow online ordering on their websites require their customers to phone before they proceed with the order. They claim that information on their websites is not detailed enough for customers. They need to explain the product to customers and say when it can be delivered.

Only five per cent of respondents accept online payment. More than half of SME managers interviewed claimed that websites with online payment systems were not appropriate to them:

> *"I don't think our people are ready for online payment yet. So
> there is no point me investing in the online payment system yet."*
> (*SME manager from firm IV*).

The survey and the interviews show very few SMEs have online ordering, online catalogue with prices display, and online payment facilities installed in their website.

5.3 Factors for Website Adoption

Six factors were used to investigatethe level of SMEs website involvement. Table 5 shows the level of involvement.

Table 5. Factors for website implementation

Factors	Percentage
Lower cost	19%
External pressure	13%
Enhance company image	75%
Attract new business	74%
Stay ahead competitors	47%
Follow the trend	31%
Guts feel	10%
Website is nice to have	21%
Just by chance	11%

Almost three-quarters of these 309 SMEs state that the most important reasons for having a website are to enhance firm image (75%) and to attract new businesses (74%). Almost 9 out 10 SME managers during the interviews said that website will improve the image of their firms. SME managers were pleased to have a website address on their firm stationery and on their business cards. They claimed that an Internet address would establish credibility in the eyes of actual and potential customers. This, according to the managers, may lead to more business:

> *"Oh yes, we have our firm website. The website address is written
> on my business card. We have put all information about our firm
> on the website."*(*SME manager from firm V*).

Many SME managers (during the interviews) assumed that having a website is essential to stay ahead of competitors. They believed firms without websites will be left behind in the marketplace. Managers said they do not want be left out. Some managers also stated that a website is a first step to going international because customers from other countries can browse their websites and make contact.

The interviews made clear that many SME managers were not sure whether customers, particularly their own customers, are willing to buy online. In addition, they also doubted whether investment in a website will be worthwhile. However, SME managers during the interviews stated that they still needed a firm website because they need to impress their customers and to follow the market trend.

> *"We need to show the people out there that we have what other people have. Well, everybody says that a website is a must for every business."*
> (*SME managing director from firm IX*).

> *"I am not really sure whether we should invest in a website. There are so many uncertainties out there. We don't know whether the investment and the time spent are really worth it. So, we are caught between a rock and a hard place: we need to have it so that we are not out-dated."*
> (*SME managing director from firm J*)

Very few SMEs claimed that having a website reduces firm operating costs (only 19%). According to the managers during the interviews, they have to spend more money to get their firm websites operating. They said they needed to hire someone to design the website, paid for domain names, and also paid for the maintenance of the website, which were major costs for many SMEs. Surprisingly, some the managers during the interview needed to cut off their firms from the Internet because they could no longer pay their bills.

> *"We had a firm website before, but cancelled it. We can't afford to hire an IT expert to maintain the firm website. We also can't afford to pay the service provider because we hardly used it."*
> (*SME manager from firm V*).

SME managers said they scarcely have time to compare their website performance with that of other firms. They did not even have the resources to compete in terms of website sophistication.

> *"There are so many website packages offered by the websites service providers. We cannot afford to have the most advanced package. We finally opted for the simplest and cheapest package available."*
> (*SME managing director from firm L*)

During interviews, it became plain that many SME managers still felt they have no need for websites, particularly a website with online payment facility. These managers argued that websites do not mean that firms can provide better products and services to the customers. These managers believed they could serve customers better by traditional methods, such as face-to-face interaction, and by facsimile, text messaging or telephone. For them, the most important thing is to provide efficiency and good quality services.

> *"We survive with our own ways of doing business. We don't need to do e-commerce. Our priority is giving the best and the fastest service to our customers." (SME manager from firm Q). "A fancy website does not mean excellent service. "We try to satisfy our customers as best as we can."*
> (*SME managing director from firm O*).

6. DISCUSSION

The snapshot of website implementation among SME in this study provides some preliminary insights. The large portions of SMEs have had websites for more than ten years. This may be because there was a big promotion from the Malaysian government for SMEs to have websites over ten years ago (see Hashim, 2011). Many of the websites, although are not updated, are still on the Internet. Thus, many mangers claimed that their SMEs have websites in operation.

The results from the survey showed almost 60% of SMEs in this study have websites. But, there is a difference in the way the website is put to use among these SMEs. Many SMEs have a website with online brochureware and online catalogue that display online information about the company, its products and services. However, very few SMEs have engaged in more complex website activities, such as websites with online ordering and online payment. These findings are similar to other SMEs and website implementation studies (e.g., Pool *et al.*, 2006; Chuang *et al.*, 2007; Scupola, 2009; and Oliveira and Martins, 2011)that found SMEs were comfortable with websites that display information about their firms, products and services; but rarely transacted online. One interesting finding from the survey is that SMEs were not only reluctant to have a website with online payment system installed, but were also hesitant to put prices of their products and services on websites. SME managers claimed that they were concerned that other firms, particularly large firms, might imitate their online prices or undercut them which are similar to Scupola (2009) findings. The interviews also confirmed this finding.

In general, website implementations among SMEs in Malaysia are still in their infancy stage. Analysis from the survey shows that the rate of website diffusion did not seem particularly important among SME managers in this study. Most of the time, SMEs only display their company and products information.Website for online selling is often considered as a stand-alone resource among SMEs, which is in line with Ordanini's (2006) and MacGregor and Vrazalic (2009) findings. Thus, we may speculate that SMEs in this study are yet to exploit all the potential of website activities in their businesses.

Based on the findings, a table of ranking analysis was developed. Table 6 shows SME reasons of having website based on ranking.

Table 6. Factors for having websites by ranking

Factors for adoption	Ranking
Enhance company image	1
Attract new business	2
Stay ahead competitors	3
Follow the trend	4
Website is nice to have	5
Lower cost	6
External pressure	7
Just by chance	8
Guts feel	9

It was found that most important factor why SME managers adopt websites was to enhance company image, and the least important was lower cost. Having a website helps SMEs to enhance the firm's image and attract new business. In addition, a website is essential to help a firm stay ahead of competitors, and impress customers. In order to stay ahead of competitors, managers stated that they need to follow the marketing trend, which is to have a website. This

was confirmed by SME managers during the interviews. Many other studies have found that SMEs adopt websites because they do not want to be left out (e.g., Rosenbloom, 2002; Ordanini, 2006). They need a website to establish credibility in the eyes of actual and potential customers, which may lead to more businesses (Rodriguez, 2005).

It should be noted that while the study by Tan and Teo (1998) found that cost was cited by non-adopters as a reason for not using the Internet, research by Mirchandani and Motwani (2001) showed that the operational cost of website was irrelevant. The finding was supported by another study (Scupola, 2009; Lin and Ho, 2011). This study also found that lower operation costs was among the least important factors why SMEs adopt websites. This implies that while low operation costs might not motivate businesses to adopt websites, 'perceived' high cost might inhibit businesses from embracing websites (Hashim, 2011).

7. KEY FINDINGS AND CONTRIBUTIONS

Some key findings and contributions of the research are described below:
•	A noticeable variation in the exploitation of website activities among SMEs is revealed in this study. At present, many SMEs have websites mainly to promote the company's goods and services, and the company itself. A website with online payment facilities is rare among SMEs in this study. One interesting finding in this study is that SME managers are not only reluctant to trade online, but are also hesitant to put prices on their products and services on websites.
•	The study contributes to the existing literature on SME website development by suggesting that SME management faces major decision dilemmas: websitefor online selling adoption drive. While previous studies found that technological, organisational, and environmental characteristics may influence SMEs to adopt website, this study suggests that other unexplained factors, such as to enhance company image and to follow the trend, do influence SMEs, particularly those in developing countries such as Malaysia, to use websites. By understanding the holistic issues of website for online selling implementation, the importance of some factors are identified.
•	Finally, it is important to highlight that most of the existing studies on websites and SMEs have focused on developed countries. This study focuses on a developing country: Malaysia. Thus, this study brings in a new, possibly fresher, wider and more inclusive perspective on the adoption of websites by SMEs.

8. CONCLUSION

This study has provided important insights into website implementation among SMEs in Malaysia. This study is cross-sectional in nature. Owing to the inherent time constraints in a study of this kind, the adoption decision, which may have required a longitudinal perspective, was not investigated. The study will, however, generate a significant data set that can be examined for potential relationships between factors and website implementation. This can be used to formulate hypotheses for future research.

Building on this research, there are opportunities for further work. The present research could serve as a starting point for more detailed studies, by involving both the adopters and the non-adopters of websites. Future studies should tackle such an assignment using multivariate analysis or case or longitudinal studies. This may give a more comprehensive understanding of these issues, particularly why some SMEs used website comprehensively while others did not.

REFERENCES

Adham, K. A. and Ahmad, M. , 2005. Adoption of Website and E-commerce Technology among Malaysian Public Companies, *Industrial Management and Data Systems*, 105(9), pp.1172-1187.

Alam, S. S., Khatibi, A., Sayyed Ahmad, M. I., and Ismail, H. , 2007. Factors Affecting E-commerce Adoption in the Electronic Manufacturing Companies in Malaysia, *International Journal of Commerce and Management*, 17 (1/2), pp. 125-139.

BERR, 2008 Information Security Breaches Survey, Department for Business, Enterprise and Regulatory Reform, http://www.pwc.co.uk/ pdf/BERR_2008_Executive_summary.pdf, Last accessed on 20 August 2009.

Bridge, S., O'Neil, K. and Cromie, S. ,1998. Understanding Enterprise, Entrepreneurship and Small Business, MacMillan Press Ltd., London.

Chuang, T. T., Nakatani, K., Chen, J. C. H. and Huang, I. L., 2007. Examining the Impact of Organisational and Owner's Characteristics on the Extent of E-commerce Adoption in SMEs.Interbational Journal Business and Systems Research, 1(1).

Cragg, P. B. and King, M., 1993. Small-Firm Computing: Motivators and Inhibitors. MIS Quarterly, 17(1), pp.47-60.

Creswell, J. W., 1994. Research Design: Qualitative and Quantitative Approach. SAGE Publication, Thousand Oaks, California.

Curran, J. and Blackburn, R. A., 2001.Researching the Small Enterprise. SAGE Production, London.

Daniel, E., 2003. An Exploration of the Inside-Out Model: E-commerce Integration in UK SMEs. Journal of Small Business and Enterprise Development, 10(3), pp.233-249.

Daniel, E. M. and Grimshaw, D. J., 2002.An Exploratory Comparison of Electronic Commerce Adoption in Large and Small Enterprises. Journal of Information Technology, 17(3), pp.133-147.

DeLone, W. H., 1988. Determinants of Success for Computer Usage in Small Business.MIS Quarterly, 12(1), March, pp.51-61.

European Commission, 2002. The Observatory of European SMEs-2002: Business Demography in Europe, European Commission, Luxembourg.

Fillis, I., Johansson, U. and Wagner, B., 2004. Factors Impacting on E-Business Adoption and Development in the Smaller Firm. International Journal of Entrepreneurial Behavior& Research, 10(3), pp.178-191.

Ghobadian, A. and Gallear, D. N. ,1996. Total Quality Management in SMEs, Omega, 24(1), pp.83-106.

Grandon, E. E. and Pearson, J. M. ,2004. Electronic Commerce Adoption: An Empirical Study of Small and Medium US Businesses, Information & Management, 42(1), December, pp.197-216.

Gray, C. and Zappala, S., 2006.Introduction, in Zappala, S. and Gray, C. (Eds), Impact of E-commerce on Consumers and Small Firms, Ashgate Publishing Limited, Hampshire.

Greene, J. C., Caracelli, V. J. and Graham, W. S., 1989.Towards a Conceptual Framework for Mix-method Evaluation Design. Education, Evaluation and Policy Analysis, 11(3), pp.255 - 274.

Hashim, M. K. and Wafa, S. A., 2002. Small and Medium-sized Enterprises in Malaysia: Development Issues. Pearson Education, Malaysia.

Hashim, N. A., 2011. E-commerce and Government Policy Initiatives for Malaysian SMEs: The Need for Assessment, Science and Public Policy, 38(10), pp.807-816.

Hashim, N. A., 2009. E-Commerce and SMEs: The Need for Caution, Prometheus, 27(2), pp.125-140.

Hussin, H., King, M. and Cragg, P. B., 2002. IT Alignment in Small Firms. European Journal of Information Systems, 11(2), pp.108-127.

Igbaria, M., Zinatelli, N., Cragg, P. B. and Cavaye, A. L. M., 1997. Personal Computing Acceptance Factors in Small Firms: A Structural Equation Modelling. MIS Quarterly, 21(3), pp.279-305.

Iacovou, C. L., Benbasat, I. and Dexter, A. A., 1995. Electronic Data Interchange and Small Organisations: Adoption and Impact of Technology, MIS Quarterly, 19(4), pp.465-485.

Ismail, N. A. and King, M., 2007. Factors influencing the alignment of accounting information systems in small and medium sized Malaysian manufacturing firms, Journal of Information Systems and Small Business, 1(1), pp.1-20.

Kalakota, R. and Whinston, A. B., 996.Frontiers of Electronic Commerce, Addison-Wesley, Upper Saddle River, NJ.

Kaur, K., 2005. Consumer Protection in E-Commerce in Malaysia: An Overview, Journal of the UNE Asia Centre, 10, pp.1-14.

Kendall, J. D., Tung, L. L., Chua, K. H., Ng, C. H. D. and Tan, S. M., 2001. Receptivity of Singapore's SMEs to Electronic Commerce Adoption. Journal of Strategic Information Systems, 10(3), pp.223-242.

Kula, V. and Tatoglu, E., 2003.An Exploratory Study of Internet Adoption by SMEs in an Emerging Market Economy. European Business Review, 15(5), pp.324-333.

Lancioni, R. A., Smith, M. F. and Olivia, T. A., 2000.The Role of the Internet in Supply Chain Management, Industrial Marketing Management, 29(3), pp.45-56.

Lin C. Y. and Ho Y. H., 2011., Determinants of Green Practice Adoption for Logistics Companies in China. J. Bus. Ethics, 98(1), pp. 67-83.

MacGregor, R. and Vrazalic, L., 2007; E-commerce in Regional Small to Medium Enterprises.   IGI Publishing, London.

Malaysia, 2004; Economic Report 2003-04, Economic Planning Unit, Kuala Lumpur.

Meredith, G. G., 1994. Small Business Management in Australia, 4th edn., McGraw Hill, Sydney.

OECD, 2009.Empowering E-consumers: Strengthening Consumer Protection in the Internet Economy. Available on the Web: http://www. oecd.org/ict/consumerconference, Last accessed 20July 2011.

Oliveira, T. and Martins, M. F., 2010. Understanding E-business Adoption across Industries in European Countries, Industrial Management & Data Systems, 110(9), pp.1337-1354.

Oliveira, T. and Martins, M.F., 2011.Literature Review of Information Technology Adoption Models at Firm Level Electronic Journal Information Systems Evaluation, 14(1), pp.110-121.

Pool, P. W., Parnell, J. A., Spillan, J. E., Carraher, S. and Lester, D. L., 2006. Are SMEs Meetings the Challenge of Integrating E-commerce into their Businesses? A Review of the Development, Challenges and Opportunities. International Journal Information Technology and Management, 5(2/3), pp.97-113.

Poon, S. and Swatman, P. M. C., 1999.An Exploratory Study of Small Business Internet Commerce Issues, Information & Management, 35(1), pp.9-18.

Porter, M., 2001.Strategy and the Internet, Harvard Business Review, 79(3), pp.63-78.

Quayle, M., 2002. E-commerce: The Challenge for UK SMEs in the Twenty-first Century, *International Journal of Operations & Production Management*, 22(10), pp.1148-1161.

Raymond, L., 2001. Determinants of Web Site Implementation in Small Businesses, Internet Research: Electronic Networking Applications and Policy, 11(5), pp.411-422.

Riquelme, H., 2002. Commercial Internet Adoption in China: Comparing the Experience of Small, Medium and Large Businesses, Internet Research: Electronic Networking Applications and Policy, 12(3), pp.276-286.

Rogers, E. M., 1995. Diffusion of Innovations. 4th edn., Free Press, New York.

Sahadev, S. and Islam, N., 2005. Exploring the Determinants of E-commerce Usage in the Hotel Industry in Thailand: An Empirical Study, Infromation Technology &Tourism, 7(3-4), pp.171-180.

Scupola, A., 2009. SMEs' E-commerce Adoption: Perspectives from Denmark and Australia. Journal of Enterprise Information Management.22(1/2), pp.152-166.

Silverman, D., 1993. Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction. SAGE Publication, London.

Storey, D. J., 1994.Understanding the Small Business Sector.Routledge, London and New York.

Tornatzky, L. G. and Fleischer, M., 1990.The Process of Technological Innovation, Lexington Books, Massachusetts.

Wigand, R. T., 1997. Electronic Commerce: Definition, Theory and Context, The Information Society, 13(1), pp.1-16.

Yap, C. S., Soh, C. P. P. and Raman, K. S., 1992.Information Systems Success Factors in Small Business, Omega, International Journal Management Science, 20(5/6), pp.597-609.

Zhu, K. and Kraemer, K.L., 2005. Post-Adoption Variations in Usage and Value of E-business by Organizations: Cross-Country Evidence from the Retail Industry, Information Systems Research, 16(1), pp. 61-84.

Zwass, V., 1996. Electronic Commerce: Structures and Issues. International Journal of Electronic Commerce, 1(1), pp.1-23.