

A PRELIMINARY STUDY OF WEB SITE USAGE BY SMEs BASED IN KUALA LUMPUR, MALAYSIA

Zaini Abdullah, University Technology MARA, Malaysia
zabadu@salam.uitm.edu.my

Ismail Ahmad, University Technology MARA, Malaysia
irnmnaa05@yahoo.com

Syed Shah Alam, University Technology MARA, Malaysia
drsyedshahalam@yahoo.com.sg

ABSTRACT

The purpose of this research was to investigate the extent to which small- and medium-size businesses (SMEs) in the Kuala Lumpur region are prepared for Web site adoption. Most of the businesses have now accepted the Web site as an important tool for marketing and selling their products and services in the domestic and global market places. Companies can use Web sites to present almost unlimited information about themselves in cyberspace. Through judgment sampling, Kuala Lumpur was selected as the research area for this study. This study investigates the rate of usage of Web sites by the SMEs. The survey was conducted by mail, and the findings are summarized herein.

KEYWORDS: Web Site, Adoption, Kuala Lumpur, Malaysia

INTRODUCTION

A Web site is a location on the World Wide Web (WWW) that is owned and managed by an individual, company, or organization. It usually contains a home page and additional pages that include information provided by the site's owner, and may include links to other relevant sites (sunrise.uk.com). A Web site can be viewed locally and internationally. It is a new media used to exchange and gather information and ideas.

Companies have determined that a Web site is an important tool for business communication and transactions between business and the consumers (Udo & Marquis, 2000). A Web site allows companies to advertise their goods and services, to provide customer support, and to obtain feedback from their customers (Kent, 1998). Nevertheless, companies of any size and any sector can benefit from a Web site (Bell & Tang, 1998). According to Khairul and Ahmad (2005), a Web site can support multiple functions. It can be used as a platform for communication within the organization and between the organization and its external stakeholders. It also serves as a platform for operating Internet-based applications that can be useful to virtually any business

(Khairul & Ahmad, 2005). At the very least, companies can use Web sites to present to their customers almost unlimited information about themselves; to offer tools by which customers can select, process, and interpret this information; and to monitor the customer's information search process (Khairul & Ahmad, 2005; Huizingh, 2002).

LITERATURE REVIEW

Several studies on Web site adoption and usage have been carried out over the past few years. Using anecdotal evidence, Huizingh (2002) identified 12 antecedents as important factors for successful Web sites. He found that 10 of the companies (83.3%) cited Web site performance as an important variable. The other two antecedents showed no significant correlation with either of the two Web performance indicators. This study also differentiated Web site performance between B2B and B2C markets; however, no support was found for the importance of a transaction function. In addition, this study explored the correlation of antecedents with two indicators of Web site performance, number of visitors and overall satisfaction with the site. Results of bivariate and multivariate analysis found that both measures refer to different aspects of performance. Both performance indicators were found to be uncorrelated, only one antecedent is significant in both regression equations, and the bivariate analysis showed only one antecedent that to be significantly and positively related to both indicators.

Using a sample of 562 Malaysian public companies, Khairul and Ahmad (2005) examined the adoption rates of Web site and e-commerce technology in their companies. Out of 562 companies, 376 (67%) were found to have URLs. Upon completion of the URL accuracy, functionality and content eligibility tests, it was found that only 351 of these URLs were operable (62% of the 562 companies). The results of the study also reveal that, only 62% (351) were found to have operable Web sites; of the 351, 96% (336) were solely informational, leaving only 4 per cent (15) equipped for e-commerce transactions.

Many of the previous studies describe a single case study in detail (e.g., Parsons et al., 1998; Seybold & Marshak, 1998; Hartman et al., 2000). These studies examine the factors that influenced the success of Web sites. Recent survey studies have focused on characteristics that influence the attractiveness of individual Web pages, such as the background (Stevenson et al., 2000) and the complexity of a Web page (Bruner & Kumar, 2000). Bell and Tang (1998) survey study examined the effectiveness of their current Internet Web sites. The online survey of 60 companies found that 30% of the companies had facilities for conducting transactions online and only 7% charged users for Web site access.

Types of Web Sites

There are many different types of Web sites, for example, commercial, business, entertainment, informational, free goods, etc. However, several researchers have classified Web sites according to the static measures of what is included in them. Among these researchers, Quelch and Klein (1996), as cited in Khairul and Ahmad (2005), sorted Web sites into four types:

1. informational/domestic,
2. informational/global,
3. transactional/domestic, and

4. transactional/global.

They defined transactional Web sites as those that allow customers to order products and services online, while informational Web sites are those that contain information, allowing static- and perhaps also interactive-communications with their targeted segments.

Like other studies, Thelwall (2000) identified five types of Web sites as follows:

1. Web sites that contain only company information
2. Web sites that consist of both company and product information
3. Web sites that provide company, product, and pricing information
4. Web sites that contain all of the above information and provide other information necessary for customers to communicate with the company for the purpose of purchasing through mail order
5. Web sites that have all of the above features and allow online financial transactions

Recent Development of Information Technology by SMEs in Malaysia

SMEs (Hashim, 2000) are defined as firms employing 150 full-time employees or as those with annual sales not exceeding RM25 million, and as those that play a significant role in the country's economic development, particularly in the manufacturing sectors (Ramayah et. al., 2002). As of December 2005, 600,000 SMEs were registered in Malaysia (SME bank). Their contribution to the manufacturing sector was 29.3% of the total output or RM75.2 billion to GDP. Adoption of the Internet and WWW is considered a means of enabling these businesses to compete on a global scale with improved efficiency and closer customer and supplier relationships (Chong et al., 2001).

Malaysian SMEs have been relatively slow in Web adoption. According to MCA ICT Resource Centre (MIRC) as cited in Seow (2006) only 30% of SMEs in Malaysia have a Web presence and use IT extensively in their daily operations. This reflects a poor rate of IT adoption among the estimated 600,000 local SMEs. Most SMEs perceived the barriers of implementing IT into their business operations to be expensive initiative, risk, complex procedure, technical expatriate, and customer services (Yeung et al., 2003; Chong et. al., 2001; Pires and Aisbett, 2001). According to Soh et al. (1997), if SMEs in Malaysia adopted the WWW, the potential commercial functions that could be performed include marketing their company both locally and globally, gathering business information and consumer feedback, providing customer support, and conducting electronic transactions. On the other hand, if implementation of the WWW were to be successful, it would have severe repercussions on small businesses with limited resources (Chong et. al., 2001).

According to Ming (2006), most SMEs in Malaysia realize that ICT is critical to the productivity and performance of their companies. However, implementation and maintenance of these ICT systems is restricted due to inability to handle the load because of high staff turnover and a lack of ICT project management expertise. He also argues that, many family-based SMEs in Malaysian are still operating their business the traditional way. Consequently, SMEs that have invested in ICT systems fail to implement and maintain these systems successfully. Similarly, Tan (2006) argues that ICT in Malaysia is facing great challenges due to their slow adoption of

technology. He also suggests that SMEs must learn to adopt technology to increase their global competitiveness.

JUSTIFICATION FOR CHOOSING KUALA LUMPUR

For this study Kuala Lumpur was selected for data collection as it is the main business centre in the country and is equipped with modern facilities, such as fast Internet connections and advanced telecommunications systems, compared to other states in Malaysia (Siwar & Kasim, 1997). In addition, the study would face difficulties if it were conducted throughout Malaysia because there is a shortage of local databases of business information and a large sample is required to accurately reflect the study.

Kuala Lumpur has good facilities for businesses, for example, advanced telecommunications systems, modern business facilities, excellent road systems, and fast Internet connections (Siwar & Kasim, 1997). As a result, Kuala Lumpur provides a good business model in Malaysia, thereby attracting many large corporations to maintain a business presence there.

RESEARCH METHODOLOGY

A survey instrument was formulated to obtain feedback from SMEs in Malaysia, assessing their awareness, receptivity, and adoption of Web sites in their business. In order to focus on SMEs, lists were sought from the Small and Medium Industries Development Corporation (SMIDEC) on Malaysia Web sites. The surveys sent out were personally addressed to the managers of the SMEs. Because of the exploratory nature of this study, a cross-sectional approach was undertaken to measure the firms' responses regarding adoption of Web sites.

DATA COLLECTION

A total of 160 survey questionnaires, enclosing a return envelope, were mailed to randomly selected SMEs located in Kuala Lumpur and listed on the Small and Medium Industries Development Corporation (SMIDEC) Web site. Follow-up was conducted via telephone and e-mail since the response rate for mailed questionnaires was low, as expected. E-mail messages were sent to those who provided their e-mail addresses to SMIDEC. Telephone inquiries were conducted only three weeks later, as a last resort for those corporations that had not responded. The response rate for the mail survey was 66.25% (106 responses). The results were then processed and analyzed by using Statistical Package for the Social Sciences (SPSS).

RESULTS

TYPES OF BUSINESS

Of the 106 SMEs that responded to this survey, the majority (72.64% or 77) were in manufacturing industries. Respondents were involved in a wide range of products. The majority of small manufacturing firms processed food, or manufactured chemicals, electronics, plastic products, wood and wood products, pharmaceuticals, and rubber products. Other small industries were in legal, accounting, medical, logistics, insurance, financial, and consulting services. Other service businesses represented in the sample were sold goods (limited) and services. The

businesses in this category were, auto garages, computer services, beauty shops, and restaurants.

TABLE 1. GENERAL INFORMATION

No	Demographic Variables	No. of Respondents	%	Cumulative %
1.	Primary sectors			
	Manufacturing	77	72.64	72.64
	Service	29	27.36	100.00
2.	Computer Ownership			
	Yes	95	89.62	89.62
	No	07	6.60	96.22
	Missing	04	3.78	100.00
3.	Internet Access			
	Yes	61	57.54	57.54
	No	41	38.68	96.22
	Missing	04	3.78	100.00
4.	Length of Internet Access			
	Less than 5 years	42	68.85	68.85
	Above 5 years	19	31.15	100.00
5.	Most Popular Internet Browser			
	Internet Explorer	54	88.52	88.52
	Netscape	05	08.20	96.72
	Did not reply	02	3.28	100.00
6.	Education Level of the Manager/Owner			
	Master degree	33	31.13	31.13
	Bachelor degree	58	54.71	85.84
	Diploma or STPM degree	15	14.16	100.00
7.	Web Presence			
	Yes	44	41.50	41.50
	No	62	58.50	100.00
8.	Difficulty of English Usage			
	Yes	99	93.40	93.40
	No	07	6.60	100.00
9.	Preference of Language other than English			
	Bahasa Malay	38	35.85	35.85
	Chinese	59	55.66	91.51
	Tamil	06	5.66	97.17
	Others	03	2.83	100.00

COMPUTER OWNERSHIP

Majority of the respondents (89.63%) owned a computer. Seven businesses did not own a computer and data was missing for 4 respondents.

INTERNET ACCESS

There were 61 firms or 57.54% respondents with Internet access to their business. 41 respondents were not connected to the Internet. In terms of length of Internet access, 42 SMEs (68.85 per cent) had been connected to the Internet for 5 years or less and the remaining 19 (31.15 per cent) had been connected to the Internet for at least 5 years and more. The majority of respondents (88.52%) used Internet Explorer as their main Internet browser. The next most popular browser was Netscape with 5 respondents or 8.20% of respondents. Two respondents did not reply.

WEB PRESENCE

Of the sample firms, only 44 firms (41.50%) had a Web site. The majority of the firms did not have a Web site.

One of the concerns that this study wanted to address was to obtain information regarding the language barriers of Web site usage. Although, there is no formal hypothesis drawn in this study, it would have appeared logical to associate low rate of Web site adoption due to the English Language usage for almost all Web sites. The respondents were asked to indicate whether respondents have any difficulty in terms of English language while using the Web. Majority of the respondents 99 respondents or 93.40% respondents stated that they did not have any difficulty with the English language while using the Web. To support this, respondent's educational level was considered as one of the demographic variables. The survey results showed that a majority of the respondents had at least Bachelor's degree (58 managers, 54.71 per cent). Followed by 33 managers (31.13 per cent) with a Master's degree and the rest had either a diploma or STPM qualification. According to Abdulai, (2001) companies in Malaysia prefer to employ well-educated managers as they can acquire critical thinking skills. This study reveals that 55.66% of the respondents preferred Chinese as an alternative language to appear in Malaysian Web sites, followed by 35.84% and 5.66% of the respondents who preferred Bahasa Melayu and Tamil languages respectively.

TABLE 2. PURPOSES OF WEB SITE USAGE

No	Variables	No. of Respondents	%
1.	Obtain business information	71	66.98
2.	Reference materials	48	45.28
3.	Collection information on competitors	63	59.43
4.	Marketing of products/services	51	48.11
5.	Collecting or providing customer information	44	41.51
6.	Searching for or posting information on products	65	61.32
7.	To retrieve government information	14	13.21

PURPOSES OF WEB SITES USAGE

Respondents were asked to indicate the types of information collected by the SMEs from their Web sites. For this study, respondents were given nine options to choose from and we allowed selecting all that applied to their situation. Majority of the respondents (66.98%) used the Web to obtain business information. The most common usage of Web sites by the respondents were searching for or posting information on products (61.32%). Sixty-three respondents (59.43%) indicated that they used Web sites for collecting information on competitors. Of the SMEs, 48.11% used Web sites for marketing of their products and services. Out of 106 companies, 48 SMEs (45.28%) used Web sites for reference materials and 41.51% used Web sites for collecting and providing customer information. By gaining more information on the product, the respondents may find new ideas to make any new changes to the product. Only 14 respondents mentioned they were using Web sites to retrieve government information.

LIMITATIONS

As in all empirical research, the characteristic of this study has certain limitations in the applicability of the findings. Firstly, the empirical evidence was limited only to SMEs in Kuala Lumpur due to the heavy industrialization of this city. Therefore, it might be difficult to generalize the findings to other states in Malaysia due to social, infrastructural, and/or economic differences. Secondly, a cross-sectional analysis was applied for exploratory purposes about the characteristics of the SMEs according to their online business intentions. Nevertheless, a longitudinal study could be more useful in explaining whether these SMEs follow the process described. Thirdly, a more detailed questionnaire with more specific questions could be more helpful to gain a better description of the stages of Web site adoption. Finally, the data was obtained from a questionnaire sent and returned by mail, and hence the information obtained may have significant deficiencies.

MANAGERIAL IMPLICATIONS

This paper has some relatively important managerial implications. The findings of the research may have implications for IT consultants, vendors, and government agencies responsible for promoting innovation adoption and utilization. Therefore, IT consultants and vendors are advised to target their marketing to SMEs with a positive attitude towards innovation adoption.

In addition, it would be useful to study managers from SMEs in different geographical areas. This would provide some interesting information allowing us to see whether the adoption and utilization of the Web is influenced by geography, and whether that geographical influence is significant, this would allow IT consultants and vendors to tailor their service and products based on geographical issues, and would allow them a greater opportunity to increase the level of Web adoption.

CONCLUSION

This study has examined the preliminary online experiences by the SMEs in Malaysia, focusing specifically on the adoption and use of Web sites, the characteristics of adopters, and subsequent patterns of Web sites use. The study shows clearly that Malaysian SMEs are still lagging behind

in online usage compared to the developed countries. About 60% of respondents did not have Web site, and were therefore limiting their usage of online business due to their managers being reluctant to respond to innovations. With a better understanding of the potential benefits that Web applications can bring, Managers should develop a more favorable attitude and become more receptive to the idea of adopting the Web.

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