

## E-commerce and SMEs—The Need for Caution<sup>1</sup>

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**ABSTRACT** *Much has been written about e-commerce. Many authors seem certain that e-commerce conveys undisputed benefits. Yet, e-commerce is not being adopted readily by SMEs. The disinclination of SMEs to adopt and use e-commerce deserves serious attention, given the role that SMEs play in all economies. This paper looks critically at the issue. It highlights findings from a large-scale survey of SMEs and interviews with SME managers across Malaysia. Results show online payment and online buying are not common. Websites are used for little more than providing contact details of the company and information about the company's goods and services. While there may be good, logical reasons for SME managers having websites, many are clearly just boys with toys.*

**Keywords:** ICTs, Internet, e-commerce, SMEs, Malaysia

### Introduction

'Electronic commerce' (e-commerce) has emerged as a significant topic in the literature only since the Internet started to be used commercially in the 1990s.<sup>2</sup> Many authors insist that e-commerce has a significant and positive impact on businesses everywhere. Policymakers and managers seem certain that e-commerce conveys undisputed benefits, insisting that companies which eschew e-commerce will be left behind in the global marketplace.

Yet, e-commerce is not being adopted readily by small and medium-sized enterprises.<sup>3</sup> In the US, e-commerce use among SMEs is generally limited to e-mail and the company webpage.<sup>4</sup> Few SMEs engage in online transactions.<sup>5</sup> In the UK, trading online in small businesses is stalling and in some cases has declined.<sup>6</sup> Elsewhere, too, few SMEs have adopted e-commerce and very few have ever traded online.<sup>7</sup> This result is surprising and important, given the role that SMEs play in all economies. They are considered to be the life blood of modern economies.<sup>8</sup> The disinclination of SMEs to adopt and use e-commerce deserves serious attention; yet, there is little systematic research that explores the relevance of e-commerce to SMEs.

This study focuses on Malaysia. Malaysia has been one of the 'Asian miracle economies'.<sup>9</sup> Information and communication technologies (ICT), particularly e-commerce, are considered to be very important to Malaysia and the government has taken an active role in their establishment. Many ICT policy initiatives have been designed to encourage businesses, especially SMEs, to adopt e-commerce. However, little is known about what e-commerce activities are appropriate to SMEs and the reasons why SMEs adopt e-commerce. This paper seeks to fill this gap in the literature. It addresses two issues: (1) the use currently made of e-commerce by SMEs in Malaysia; and (2) the reasons why SMEs adopt e-commerce.

## **E-commerce and SMEs**

### *E-commerce*

There is no consensus on the definition of e-commerce.<sup>10</sup> However, there are two common elements to most definitions. First, e-commerce concerns business activities that occur by electronic means, such as sharing business information, and buying and selling. The second element is the technological means that enable these activities. The difference lies in how some researchers define these two elements. Some define e-commerce broadly, including all business activities carried out over any electronic media.<sup>11</sup> Others define e-commerce more narrowly by focusing on certain business activities or technological means.<sup>12</sup> In this study, Zwass's definition of e-commerce is used, focusing on Internet-based technology: 'E-commerce is sharing of business information, maintaining business relationships and conducting business transactions by means of Internet-based technology'.<sup>13</sup>

The literature of e-commerce and SMEs suggest that there are at least three ways in which e-commerce is perceived. Some researchers see e-commerce in terms of Internet applications, such as e-mail, website and intranet.<sup>14</sup> Some investigate the use of e-commerce in terms of business activities; for example, communicating with customers and suppliers.<sup>15</sup> Others see e-commerce as a mix of Internet applications and business activities.<sup>16</sup> Regardless of which views researchers hold, there are only three general e-commerce components usually used to demonstrate the prevalence of e-commerce: e-mail, websites (for online selling), and online buying. These three components will be the measures used in this study. In addition to recording the existence of such technologies in companies, this paper also discusses the actual use of e-commerce in SMEs by looking at the business activities for which SME managers use e-commerce.

### *Small and Medium-sized Enterprises (SMEs)*

SMEs have an extreme range of forms. They differ in type of business and management style, as well as in capabilities, resources and business requirements. SMEs have little ability to influence their wider environment and their activities are usually dictated by the market.<sup>17</sup> They lack capital and credit facilities, skilled labour and infrastructure. Yet, SMEs are very important in the economic activities of most nations. They constitute more than 90% of businesses and contribute to job opportunities (most new employment), and social cohesion, as well as regional and local development.<sup>18</sup> SMEs are less bureaucratic than large firms, and decisions can be made quickly. They are more responsive to market needs and they have the flexibility to try new approaches.<sup>19</sup> In Malaysia, SMEs (commonly called

small and medium-sized industries, SMIs) form the bulk of companies and they play a critical role in the country's industrialisation.

There are two common ways of defining SMEs: definitions based on financial turnover and definitions based on numbers employed.<sup>20</sup> Definitions based on numbers employed are more popular, and most commonly used by policymakers and researchers. Employment is more objective, transparent and less confidential.<sup>21</sup> For this study, SMEs will be defined by an employment range from 10 to 250 employees.<sup>22</sup> Very small firms (with fewer than 10 employees) will be excluded since these are likely to approach IT issues differently,<sup>23</sup> and because their numbers would swamp those of larger SMEs.

### **E-commerce of SMEs**

There is substantial interest in the adoption of e-commerce by SMEs. Part of the reason is that many researchers believe that SMEs can gain considerably from using the Internet.<sup>24</sup> There are also suggestions that SMEs can compete with large organisations by adopting e-commerce because the Internet can provide equal access to both.<sup>25</sup>

Many studies suggest a range of business activities for which SMEs use e-commerce. Daniel *et al.* for example, state that SMEs in the UK are adopting e-commerce in four stages as: (1) developers; (2) communicators; (3) those with web presence; and (4) transactors.<sup>26</sup> Developers are developing their first e-mail and website; communicators are using e-mail and exchanging documents and designs electronically with customers and suppliers; web presence means websites with online ordering facilities; and transactors are those using online ordering and payment capabilities. This stage approach has been criticised because firms can leapfrog the stages.<sup>27</sup>

Other studies also use a range of business activities to investigate e-commerce adoption among SMEs. Drew finds that SMEs which have had websites for a number of years use e-mail to communicate, and their websites for advertising and promotion.<sup>28</sup> Far fewer use websites for sales, recruitment and procurement. Brown and Lockett find SMEs generally engaged in only simple e-commerce activities, such as e-mail, web-access and websites.<sup>29</sup> Few SMEs are buying and selling online. Pool *et al.* claim that e-commerce usage among SMEs is not as pervasive as among large firms.<sup>30</sup> Many SMEs use e-mail and have websites, but very few engage in more complex integration, such as online sales and supply chain management.<sup>31</sup> The rate of adoption of online ordering and payment is so slow among SMEs that the UK government has not even tried to measure engagement of SMEs in more complex applications.<sup>32</sup> This situation is evident elsewhere, and so this study does not include any complex website activities beyond online payment to investigate what SMEs are actually using e-commerce for.

### **E-commerce Adoption by SMEs**

There is a growing body of literature specifically looking at SMEs and their use of ICT. However, most studies examine the outcomes of the innovation process, focusing on the variables that influence or inhibit the decision to adopt.<sup>33</sup> Table 1 summarises some of the prominent studies that have examined predictors of ICT adoption among SMEs.

Table 1 displays quite a mixed picture of what may influence IT adoption among SMEs. More than 20 items can be selected as relevant predictors for ICT

Table 1. Predictors of ICT adoption among SMEs

| Author                                                           | Sample size                           | ICT studied                    | Data gathering method                              | Significant predictors                                                                                                                                                                                            | Not significant predictors                                                                                                              |
|------------------------------------------------------------------|---------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Iacovou <i>et al.</i> <sup>a</sup><br>Thong and Yap <sup>b</sup> | 7 Canadian SMEs<br>172 Singapore SMEs | EDI<br>IT                      | Semi-structured interviews<br>Postal questionnaire | Perceived value<br>Firm size<br>CEO attitude<br>CEO innovativeness<br>Perceived value<br>Organisational culture<br>ICT skills                                                                                     | Organisational readiness<br>Competitive pressure<br>Information intensity<br>External support<br>Competitive pressure<br>Outside skills |
| Fink <sup>c</sup>                                                | 93 Australian SMEs                    | IT                             | Postal questionnaire                               | Perceived value<br>Size Management<br>support<br>Competitive pressure<br>Perceived value<br>Compatibility<br>Triability                                                                                           | External support<br>Cost perceived<br>Complexity<br>Compatibility<br>IT expertise<br>Complexity<br>Observability                        |
| Premkumar and Roberts <sup>d</sup>                               | 78 US rural SMEs                      | Internet commerce              | Semi-structured interviews                         | Perceived value<br>Organisational readiness<br>External pressure<br>Competitive pressure<br>Growth strategies<br>Perceived efficiency<br>External pressure<br>Social benefits<br>Cost savings<br>External support | Size<br>Financial resources<br>Competitive pressure<br>Customer orientation<br>Customer relations                                       |
| Kendall <i>et al.</i> <sup>e</sup>                               | 58 Singapore SMEs                     | E-commerce                     | Fax and postal questionnaire                       | Perceived value<br>Organisational readiness<br>External pressure<br>Competitive pressure<br>Growth strategies<br>Perceived efficiency<br>External pressure<br>Social benefits<br>Cost savings<br>External support | Size<br>Financial resources<br>Competitive pressure<br>Customer orientation<br>Customer relations                                       |
| Mehrtrens <i>et al.</i> <sup>f</sup>                             | 7 SMEs in New Zealand                 | Internet                       | Semi-structured interviews                         | Perceived value<br>Organisational readiness<br>External pressure<br>Competitive pressure<br>Growth strategies<br>Perceived efficiency<br>External pressure<br>Social benefits<br>Cost savings<br>External support | Size<br>Financial resources<br>Competitive pressure<br>Customer orientation<br>Customer relations                                       |
| Daniel and Wilson <sup>g</sup>                                   | 678 SMEs in the UK                    | E-commerce                     | Postal questionnaire                               | Perceived value<br>Organisational readiness<br>External pressure<br>Competitive pressure<br>Growth strategies<br>Perceived efficiency<br>External pressure<br>Social benefits<br>Cost savings<br>External support | Size<br>Financial resources<br>Competitive pressure<br>Customer orientation<br>Customer relations                                       |
| Simpson and Docherty <sup>h</sup>                                | 2 UK SMEs                             | E-commerce                     | Case studies                                       | Perceived value<br>Organisational readiness<br>External pressure<br>Competitive pressure<br>Growth strategies<br>Perceived efficiency<br>External pressure<br>Social benefits<br>Cost savings<br>External support | Size<br>Financial resources<br>Competitive pressure<br>Customer orientation<br>Customer relations                                       |
| Ordanini <sup>i</sup>                                            | 686 Italian SMEs                      | IT-based Internet technologies | Computer assisted telephone inquiry (CATI)         | Perceived value<br>Organisational readiness<br>External pressure<br>Competitive pressure<br>Growth strategies<br>Perceived efficiency<br>External pressure<br>Social benefits<br>Cost savings<br>External support | Size<br>Financial resources<br>Competitive pressure<br>Customer orientation<br>Customer relations                                       |

Notes: <sup>a</sup> C. Iacovou, I. Benbasat and A. Dexter, 'Electronic data interchange and small organisations: adoption and impact of technology', *MIS Quarterly*, 19, 4, 1995, pp. 465–85.

<sup>b</sup> J. Thong and C. Yap, 'CEO characteristics, organizational characteristics and information technology adoption in small businesses', *Omega*, 23, 4, 1995, pp. 429–42.

<sup>c</sup> D. Fink, 'Guidelines for the successful adoption of information technology in small and medium enterprises', *International Journal of Information Management*, 18, 4, 1998, pp. 243–53.

<sup>d</sup> G. Premkumar and M. Roberts, 'Adoption of new technologies in rural small businesses', *Omega*, 27, 4, 1999, pp. 467–84.

<sup>e</sup> J. Kendall, L. Tung, K. Chua, C. Ng and S. Tan, 'Receptivity of Singapore's SMEs to electronic commerce adoption', *Journal of Strategic Information Systems*, 10, 3, 2001, pp. 223–42.

<sup>f</sup> J. Mehrtrens, P. Cragg and A. Mills, 'A model of internet adoption by SMEs', *Information and Management*, 39, 3, 2001, pp. 165–76.

<sup>g</sup> E. Daniel and H. Wilson, 'Adoption intentions and benefits realised: a study of e-commerce in UK SMEs', *Journal of Small Business and Enterprise Development*, 9, 4, 2002, pp. 331–48.

<sup>h</sup> M. Simpson and A. Docherty, 'E-commerce adoption support and advice for UK SMEs', *Journal of Small Business and Enterprise Development*, 11, 3, 2004, pp. 315–28.

<sup>i</sup> Andrea Ordanini, *Information Technology and Small Businesses—Antecedents and Consequences of Technology Adoption*, Elgar, Cheltenham, 2006.

Source: adapted from Andrea Ordanini, *Information Technology and Small Businesses—Antecedents and Consequences of Technology Adoption*, Elgar, Cheltenham, 2006.

adoption among SMEs. Many are relevant in some studies, but not in others.<sup>34</sup> For example, Iacovou *et al.*<sup>35</sup> find that *organisational readiness* is not a significant predictor of EDI adoption among SMEs, but Ordanini<sup>36</sup> finds that it is the most significant predictor of all. The sample sizes of SMEs that have been used in these studies range from two to 686. Data gathering methods are mainly semi-structured interviews (three studies), case studies (one study), postal questionnaires (four studies), and telephone interviews (one study). Studies using large sample sizes and combining postal questionnaires with semi-structured interviews are rare in the literature. Studies of why SMEs use e-commerce in their businesses are also very sparse.

## Methodology

The data for this paper have been gathered by means of a large-scale survey and also face-to-face and telephone interviews. The survey was administered from September to December 2006 to SMEs across Malaysia. A single database of 3,535 SMEs with 10–250 employees was constructed from three prominent databases: the SMIDEC (Small and Medium-sized Industry Development Corporation) database, the FMM (Federal Manufacturers Malaysia) database, and the PIKOM (Association of the Computer and Multimedia Industry) database. These databases are the most reliable and up-to-date and have been used by other researchers.<sup>37</sup> All these databases provide trading addresses, names of CEOs or managing directors, and number of employees, and are sorted alphabetically by company name. Questionnaires were sent to all 3,535 SME managers by post. Electronic surveys are obviously not appropriate for a study of adopters and non-adopters of e-commerce. Two weeks after the initial mailing, reminders were sent by phone, SMS (short message systems) or e-mail. Finally, approximately one month after that, a second mailing was sent to 2,888 non-respondents.

Some 547 responses were received (for an overall response rate of 17.6%). Of these, 18 were rejected because they came from companies with fewer than 10 employees or more than 250 employees, and a further seven were not included because the return was incomplete. Hence, 522 useable responses (an effective response rate of 16.8%) are the basis for the findings of this study. One explanation for this relatively low response rate could be the time of year at which the survey took place (the celebration month in Malaysia). Other surveys conducted in Malaysia have had a response rate of between 7 and 25%.<sup>38</sup>

Face-to-face and telephone interviews were also carried out to add detail to the issues being studied.<sup>39</sup> The face-to-face interviews were conducted personally and lasted between one and two hours. The telephone interviews were also conducted personally with managers that were not available for face-to-face interviews and lasted from 20 to 45 minutes. Both face-to-face and telephone interviews were digitally recorded. In all, 28 managers were interviewed.

## Results and Discussion

### *Internet and E-commerce Usage*

The use of the Internet is widespread even among SMEs. In the year 2000, 90% of UK businesses were connected to the Internet and this had increased to 94% by 2001.<sup>40</sup> Almost 100% of the SMEs participating in this study have an Internet

connection. More than 70% of these SMEs claim that the Internet is either very important or important in their business. Broadband is widely used to access the Internet. This is not a surprise because most of the respondents (more than 60%) are from Selangor, Kuala Lumpur and Penang, modern states renowned in Malaysia for their use of high technology. Out of 522 respondents, 497 or 95% use e-mail in their businesses. However, only 309 or 59% have websites and only 149 or 29% have ever bought online (see Figure 1).

This finding is similar to those of other e-commerce studies, which disclose that SMEs are generally engaged mainly in such simple activities as e-mail.<sup>41</sup> Only 40% of SMEs in this study claim to have adopted e-commerce at all. However, some respondents state that they buy and pay online, but claim they are not using e-commerce. Some have websites, but do not see this as e-commerce. On the other hand, some regard browsing the Internet as e-commerce. Many still do not really understand what e-commerce is all about.<sup>42</sup>

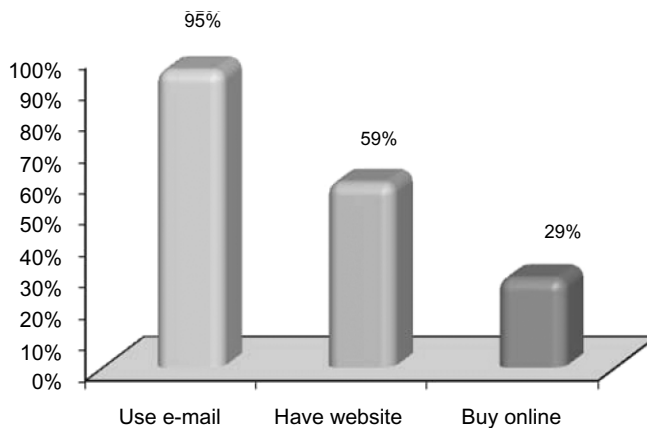
I don't know what e-commerce is. I might not be right person to answer this survey.

(SME manager)

We use a lot of e-mail in our company but rarely update our website. We even take orders using e-mail and of course it is from our regular customers. Is that considered as e-commerce as well?

(SME manager)

This could be one of the reasons why stories about e-commerce adoption are so varied. For example, some studies consider using the Internet to search for business information or communicating through e-mail as e-commerce.<sup>43</sup> Other studies do not see this as e-commerce.<sup>44</sup> Hence, it has been necessary to break down each activity in this study to investigate the extent of each component of e-commerce adoption among SMEs.



**Figure 1.** E-commerce usage among Malaysian SMEs ( $n=522$ ).

Source: Survey.

*E-mail* E-mail is widely used among SMEs. The most important e-mail usage is communicating with customers/suppliers (96%), followed by sharing business information. The bar graph (Figure 2) below represents the breakdown of e-mail usage among 497 SMEs that have adopted e-mail.

Interestingly, many SMEs use e-mail to accept customers' orders (58%). Some (22%) have started using e-mail to send invoices to their customers.

I think e-mail is convenient. It is so good that our customers have started using e-mail to order with us. However, at the moment we only deal with our regular customers.

(SME manager)

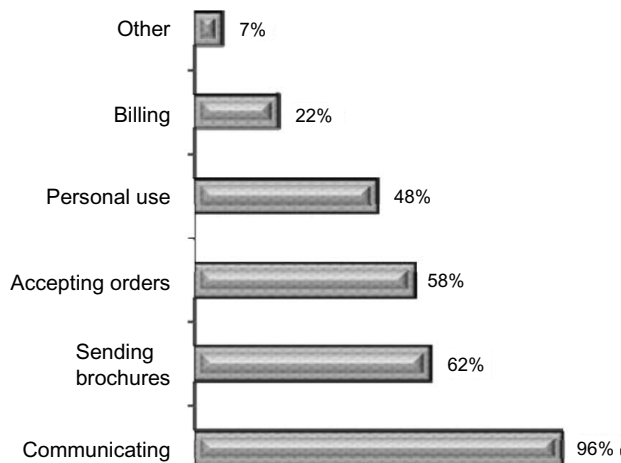
We only take e-mail orders from our regular customers. For new customers, we usually ask their contact number. We contact them first by phone to make some arrangement. Usually, these customers need to pay us first before we proceed with the delivery.

(SME manager)

We sometimes send invoices via e-mail attachments. Customers need to pay through our bank account and fax the copy of their receipt before we proceed with the delivery.

(SME managing director)

*Websites* Almost 60% of the respondents state that their companies have websites. Of this 60%, 83% claim that they update and maintain their websites. However, only 9% update their websites at least weekly. Many state that they update their website whenever possible (56%). Almost 20% rarely update or maintain their website.



**Figure 2.** E-mail usage among Malaysian SMEs ( $n=497$ ).

Source: Survey.



Why bother to update or maintain the website so often? We have included all the information required by our customers about our company. We only have it updated if it is necessary to do so.

(SME manager)

We don't see the relevance of updating our website frequently. We don't have time to do that. Do you think we should?

(SME manager)

Only about 30% of these SMEs have an in-house webmaster to update and maintain their company websites, and not even 10% have ever employed a web designer. Interestingly, most SMEs (almost 50%) outsource their websites to someone else for updating and maintenance. This could be one of the reasons why SME websites are rarely updated.

We need to pay the service provider for updating and maintaining our websites. It is an agreement basis. Once the agreement is ended, we need to renew it. More money needs to be invested again. Yet, we hardly get any feedback from the customer about our websites.

(SME manager)

We went for an e-commerce solution presentation in one of the hotels here. It looks so impressive and promising. So, we invested some money to get our company website designed. We then pay for the services every month. Yet, we gain nothing so far. So, we stop the services. Now, the website is still on the Internet, yet it was not updated for more than a year now.

(SME manager)

Though many of these SMEs have websites, they are used for little more than providing contact details for the company and information about the company's goods and services. Figure 3 shows the breakdown of website activities of these Malaysian SMEs.

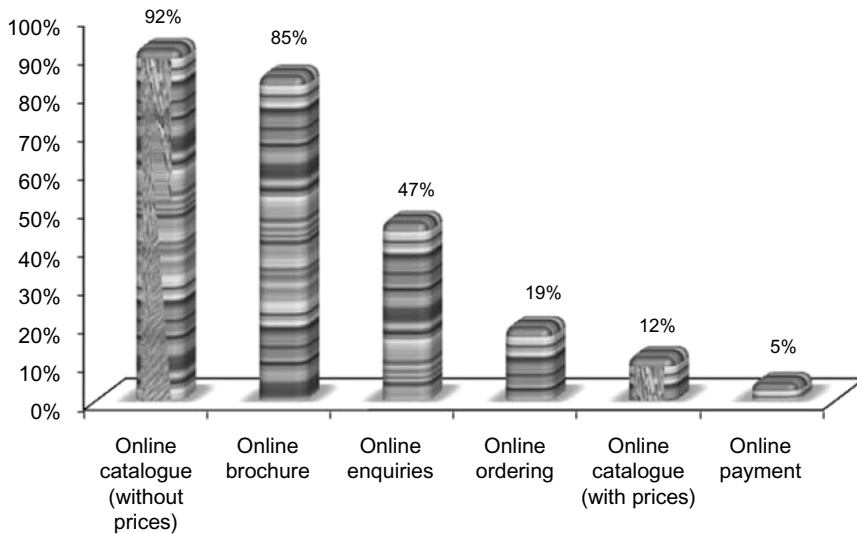
Very few SMEs (12%) are willingly to put the price of their goods and services on their websites. Some managers fear this would allow their competitors to offer a better price than theirs. Almost half of the SME websites offer an online enquiry service, but it is rarely used.

We have most of the website activities incorporated in our company website. But, we rarely use it. The customers usually use e-mail or phone the company for any enquiry.

(SME manager)

Some SMEs which allow online ordering on their websites require their customers to phone before they proceed with the orders. They claim that information on their websites is not detailed enough for customers. They need to explain the





**Figure 3.** Website activities of Malaysian SMEs ( $n=309$ ).

Source: Survey.

product to customers and ensure that it can be delivered. This is important if orders are not to be returned.

Very few SMEs (only 5%) accept online payment, which is in line with most findings.<sup>45</sup> While many researchers claim that payment for goods and services will go online as SMEs gain more experience with websites,<sup>46</sup> many SMEs are still reluctant to innovate.

I don't think our people are ready for online payment yet. So there is no point for me to invest in the online payment system yet.

(SME manager)

I have put everything that the customers need to know about our company and products on our websites. I don't think my company need more than that. Online payment is not practical for our company. We negotiate about the price through e-mail and face-to-face meetings.

(SME manager)

It is not secure to put online payment on the website. There are so many fraudsters and intruders. I don't want my websites to be hacked.

(SME managing director)

*Buying Online* Most studies of e-commerce in SMEs are more concerned with selling to customers than with buying. One possible reason is that e-commerce, particularly the website, is more appropriate for marketing than for purchasing. Another possible reason is because SME managers are wary of buying online because they are concerned about the security of e-commerce.<sup>47</sup> They believe that any online

trading is high risk and they are not willing to jeopardise their businesses.<sup>48</sup> Buying online is exceptional among SMEs.

I was surprised when my credit card provider enquired of me if I had charged my credit card with some large amount of money in some other countries. But I told them that I was in my country at that particular time. The transaction was cancelled and I was given a new credit card. I have never been to the country that my credit card provider stated, but I bought something online before. I am now very reluctant to purchase anything online after this incident.

(SME manager)

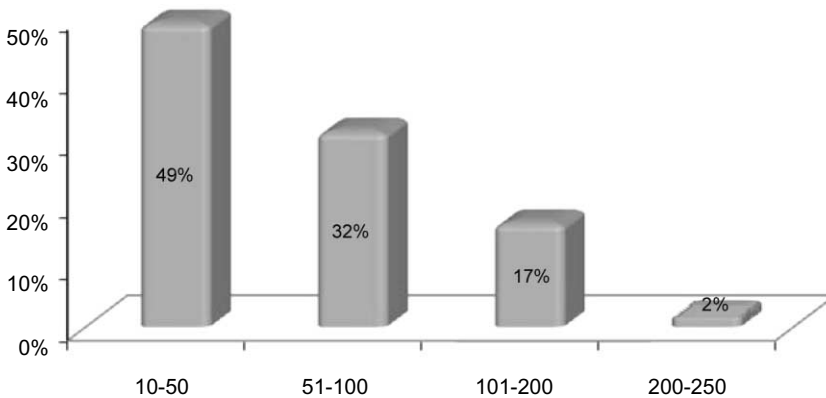
Only 29% of respondents in this survey buy online. The adoption pattern is interesting: smaller SMEs are more likely than larger SMEs to buy online. Some 49% of the smallest SMEs buy online compared with just 2% of the largest SMEs (see Figure 4). This is inconsistent with other studies which find that larger SMEs use more complex ICT than smaller SMEs.<sup>49</sup> One of the reasons could be the flexibility of smaller SMEs. They have little bureaucracy and quick decisions can be made in buying items. The Internet allows them to scout other company websites for the cheapest price.

E-commerce is a very important aspect of my company and me. There is so much information out there that I don't have to rely now on experts and consultants. I even can check prices and buy from the suppliers directly with cheaper deals.

(Managing director from smaller SME)

I check prices of goods on other company websites and get quotations from them. We then negotiate with our suppliers. However, my boss makes the decision whether to purchase from the suppliers or other companies.

(Manager of larger SME)



**Figure 4.** Malaysian SMEs buying online by size ( $n=149$ ).

Source: Survey.

Many SME managers claim they rarely order or buy online, but place their orders by telephone or facsimile. Some investigate the product online and end up buying it from offline traders. In Europe, consumers also buy products offline, having first investigated prices and details online, according to a study by Forrester, a research consultancy.<sup>50</sup> Some SME managers state that they will only buy online if the websites offer exceptional security.

If I were to buy online in future, I would only buy from reputable organisations that promise secure protection on online transactions and also those who would pay me back every single cent of what I have spent if something goes wrong with the delivery or if I were to return their products.

(SME manager)

Although online payment and online buying are not popular among SMEs, most of them claim that e-commerce, particularly websites, are still necessary for doing business. Half of the respondents plan to expand the use of their company websites in the next 12 months. Yet, they are still not sure what kind of benefits they will gain, and how soon. Most are satisfied with simply making information available on their company websites:

I am satisfied with our company websites. We provide ICT services to various agencies. So, we just need to let the customers know what we are offering.

(SME manager)

We design our own website and include all the information needed. But, this is it. Just to let people know that we are here.

(SME manager)

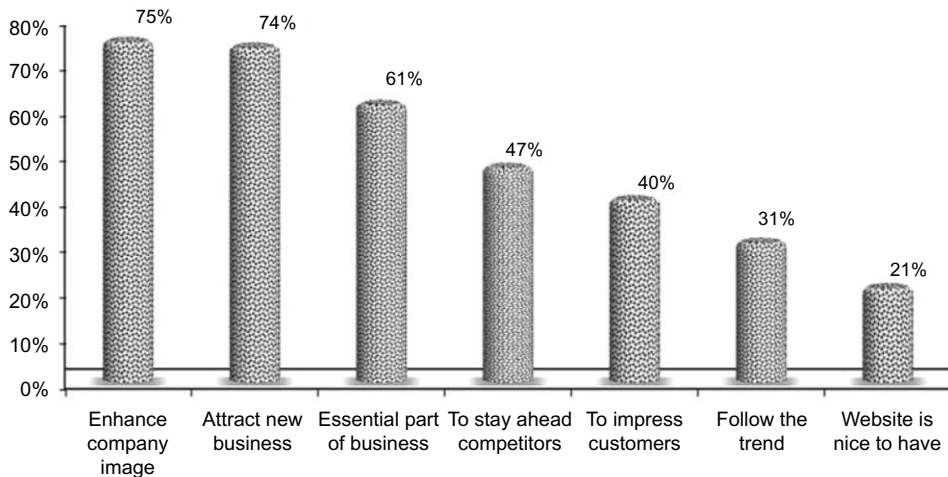
### *Reasons for Website Adoption*

As discussed previously, a huge variety of factors can influence SMEs' adoption of e-commerce. Ordanini finds that less than half of the factors presented in Table 1 are consistent across studies.<sup>51</sup> Figure 5 shows why SME managers in the present study install a company website.

The most important reasons for having a website are to enhance company image and to attract new businesses. Most SME managers are content to have the company's website address on their company stationery or on their business cards. They claim that an Internet address establishes credibility in the eyes of actual and potential customers.<sup>52</sup> Most seem to have no better reason for having a website than to impress customers, to follow the trend. For SME managers in this study, the website is predominantly a fashion good.

My customers told me that most companies now have websites. Having a website will make my company more prestigious. So, everybody has it, so do we.

(SME manager)



**Figure 5.** Factors most influential in website adoption by SMEs ( $n=309$ ).

*Source:* Survey.

We are glad that one of our staff has made our company website available on the Internet. At least, I can now show this website to my customers.

(SME managing director)

It is so nice to have our company website on the Internet at the beginning. You know, new things should be tried. But now, nothing much we can do with it.

(SME manager)

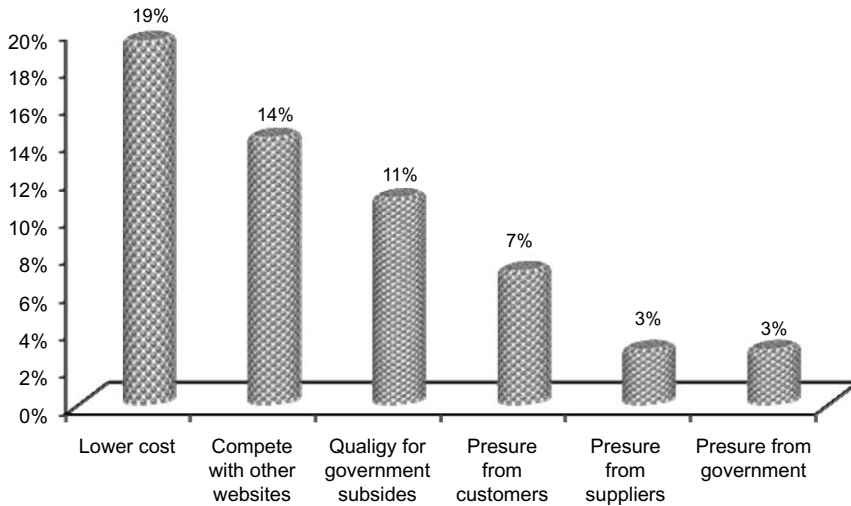
Reasons which other studies find to be important in the decision of SME managers to adopt websites, such as lower transaction costs,<sup>53</sup> are just not important in this study (see Figure 6). Very few SMEs claim that having a website reduces company operating costs, which is inconsistent with other studies.<sup>54</sup> Most managers have to spend more money in order to get their company websites operating. They need to hire someone to design their websites, pay for the domain names, and also pay for the maintenance of the websites. Some SMEs have even been cut off from the Internet because they can no longer pay their bills.

Lower cost? No way. We can't afford to hire an IT expert to maintain the company website. We also can't afford to pay the service provider for nothing because we hardly used it.

(SME manager)

We cut off our Internet services recently to cut down the company expenses.

(SME manager)



**Figure 6.** Factors least influential in website adoption by SMEs ( $n=309$ ).

Source: Survey.

SME managers scarcely have time to compare their website performance with that of other companies. They do not have the resources to compete in terms of website sophistication. There are more than 60 different website programmes offered by e-commerce service providers.<sup>55</sup> Some are cheap, while others cost a fortune. So, most SMEs have websites like those of other companies, or none at all. Analysis of 68 SME websites in this study revealed that all are similar in appearance. The setting and the features of the websites are almost identical. They differ only in the company information, and the products and services the SMEs offer. This is not surprising as most of the websites come from the same providers. Unless SMEs invest more, they will not get better packages.

There are so many website packages offered by the e-commerce service providers. We cannot afford to have the most advanced package. We finally opted for the simplest and cheapest package available.

(SME managing director)

Interestingly, many SME managers still feel they have no need for complex websites, such as those embedding online payment systems. Websites do not mean that companies provide better products/services for customers. For these SME managers, providing quality and efficiency is important.

We survive with our own ways of doing business. We have our own systems. We don't need to do e-commerce. Our priority is giving the best and the fastest services to our customers. Our price is a bit high, but our service is superb.

(SME managing director)

Neither government subsidies nor pressure from stakeholders is important in a SME's decision to adopt e-commerce. Many SME managers stated that they will invest in a website only if it is really needed.

We don't care about the cost of technology and there is no pressure for us to sell online yet. If we think our company needs it in future, we will find ways to have it.

(SME manager)

### Concluding Remarks

E-commerce has received much publicity, perhaps because it is so commonly assumed that e-commerce will dramatically change the way conventional business is done. Many studies present an optimistic picture of e-commerce adoption by SME managers. They should be treated with caution. This study finds that very few Malaysian SMEs are deeply involved in e-commerce. E-commerce among SMEs is still generally limited to e-mail. Websites are used mainly to provide information about a company's goods and services. Many SME managers are yet to acquire much understanding of e-commerce. This is hardly surprising; even among researchers and practitioners, there is little consensus on e-commerce.

The findings also suggest that SMEs adopt websites to enhance the company image and attract new businesses. SME managers want their companies to look impressive to impress customers. Many managers believe that a website is simply a nice thing to have. Many are clearly just boys with toys. SME managers in Malaysia, dallying with websites as the fashion of the moment, may have done their companies more harm than good.

These findings have implications for all agencies involved with SMEs and e-commerce. To achieve greater e-commerce adoption, researchers, educators, policymakers and service providers should try to understand SMEs and their needs, to talk business in SMEs' own terms.<sup>56</sup> They should provide full and clear information about e-commerce to SMEs, disadvantages as well as advantages. There is also a need for consensus about what e-commerce is all about. Different interpretations of e-commerce will lead to different understandings among stakeholders and practitioners. Without adequate information, the anticipated benefits of e-commerce are less likely to be achieved.

### Notes and References

1. A version of this paper was presented at the 52nd World Conference of the International Council for Small Business (ICSB), 13–15 June 2007, in Turku, Finland. The author would like to thank Stuart Macdonald for his comments on this paper.
2. V. Zwass, 'Electronic commerce: structures and issues', *International Journal of Electronic Commerce*, 1, 1, 1996, pp. 1–23.
3. See, for example, I. Fillis, U. Johansson and B. Wagner, 'Factors impacting on e-business adoption and development in the smaller firm', *International Journal of Entrepreneurial Behavior and Research*, 10, 3, 2004, pp. 178–91.
4. E. Grandon and J. Pearson, 'Electronic commerce adoption: an empirical study of small and medium US businesses', *Information and Management*, 42, 1, 2004, pp. 197–216.
5. *Ibid.*
6. P. Pool, J. Parnell, J. Spillan, S. Carraher and D. Lester, 'Are SMEs meeting the challenge of integrating e-commerce into their businesses? A review of the development, challenges and opportunities', *International Journal of Information Technology and Management*, 5, 2/3, 2006, pp. 97–113.

7. A. Scupola, 'The adoption of Internet commerce by SMEs in the south of Italy: an environmental, technological and organisational perspective', *Journal of Global Information Technology Management*, 6, 1, 2003, pp. 52–71.
8. Jim Curran and Robert Blackburn, *Researching the Small Enterprise*, Sage, London, 2001.
9. L. Wong, 'Creating space in the global economy: building a high tech dream in Malaysia', *Prometheus*, 21, 3, 2003, pp. 289–313.
10. J. Kendall, L. Tung, K. Chua, C. Ng and S. Tan, 'Receptivity of Singapore's SMEs to electronic commerce adoption', *Journal of Strategic Information Systems*, 10, 3, 2001, pp. 223–42.
11. R. Wigand, 'Electronic commerce: definition, theory and context', *Information Society*, 13, 1, 1997, pp. 1–16.
12. Zwass, *op. cit.*
13. Pool *et al.*, *op. cit.*; Scupola, *op. cit.*
14. See, for example, S. Drew, 'Strategic uses of e-commerce in the east of England', *European Management Journal*, 21, 1, 2003, pp. 79–88.
15. For, example, E. Daniel and H. Wilson, 'Adoption intentions and benefits realised: a study of e-commerce in UK SMEs', *Journal of Small Business and Enterprise Development*, 9, 4, 2002, pp. 331–48.
16. For example, Kendall *et al.*, *op. cit.*
17. Curran and Blackburn, *op. cit.*
18. Scupola, *op. cit.*
19. David Storey, *Understanding the Small Business Sector*, Routledge, London, 1994.
20. Curran and Blackburn, *op. cit.*
21. Clifford Frederick Pratten, *The Competitiveness of Small Firms*, Cambridge University Press, Cambridge, 1991.
22. M. Igarria, N. Zinatelli, P. Cragg and A. Cavaye, 'Personal computing acceptance factors in small firms: a structural equation modelling', *MIS Quarterly*, 21, 3, 1997, pp. 279–305.
23. H. Hussin, M. King and P. Cragg, 'IT alignment in small firms', *European Journal of Information Systems*, 11, 2, 2002, pp. 108–27.
24. See, for example, Daniel and Wilson, *op. cit.*
25. H. Riquelme, 'Commercial Internet adoption in China: comparing the experience of small, medium and large businesses', *Internet Research: Electronic Networking Applications and Policy*, 12, 3, 2002, pp. 276–86.
26. E. Daniel, H. Wilson and A. Myers, 'Adoption of e-commerce by SMEs in the UK', *International Small Business Journal*, 20, 3, 2002, pp. 253–70.
27. J. Bell, 'The internationalisation of small computer software firms', *European Journal of Marketing*, 29, 8, 1995, pp. 60–75; Fillis *et al.*, *op. cit.*
28. Drew, *op. cit.*
29. D. Brown and D. Lockett, 'Potential of critical e-applications for engaging SMEs in e-business: a provider perspective', *European Journal of Information Systems*, 13, 1, 2004, pp. 21–34.
30. Pool *et al.*, *op. cit.*
31. *Ibid.*
32. Brown and Lockett, *op. cit.*
33. See, for example, Kendall *et al.*, *op. cit.*; Scupola, *op. cit.*; Grandon and Pearson, *op. cit.*
34. Andrea Ordanini, *Information Technology and Small Businesses—Antecedents and Consequences of Technology Adoption*, Elgar, Cheltenham, 2006.
35. C. Iacovou, I. Benbasat and A. Dexter, 'Electronic data interchange and small organisations: adoption and impact of technology', *MIS Quarterly*, 19, 4, 1995, pp. 465–85.
36. Ordanini, *op. cit.*
37. R. Othman, R. Abdul-Ghani and R. Arshad, 'CEOs' perception of the performance gap of the HRM function in the Malaysia manufacturing sector', *Personnel Review*, 30, 1, 2001, pp. 61–80.
38. *Ibid.*
39. J. Greene, V. Caracelli and W. Graham, 'Towards a conceptual framework for mix-method evaluation design', *Education, Evaluation and Policy Analysis*, 11, 3, 1989, pp. 255–74.



40. Department of Trade and Industry, *Business in the Information Age—International Benchmarking Study*, DTI, London, 2001.
41. Brown and Lockett, *op. cit.*
42. Kendall *et al.*, *op. cit.*
43. See, for example, J. Mehrtens, P. Cragg and A. Mills, 'A model of Internet adoption by SMEs', *Information and Management*, 39, 3, 2001, pp. 165–76.
44. For example, L. Raymond, 'Determinants of website implementation in small businesses', *Internet Research: Electronic Networking Applications and Policy*, 11, 5, 2001, pp. 411–22.
45. For example, Drew, *op. cit.*
46. Daniel and Wilson, *op. cit.*
47. Robert MacGregor and Lejla Vrazalic, *E-commerce in Regional Small to Medium Enterprises*, IGI Publishing, London, 2007.
48. Scupola, *op. cit.*
49. Ordanini, *op. cit.*
50. 'A perfect market: a survey of e-commerce', *Economist*, 15 May 2004, p. 5.
51. Ordanini, *op. cit.*
52. Jorge Rodriguez, *Internationalisation of the SME: The Aware Manager*, PhD thesis, Management School, University of Sheffield, 2005.
53. See, for example, Scupola, *op. cit.*
54. Kendall *et al.*, *op. cit.*; Scupola, *op. cit.*
55. R. Wilson, 'E-commerce software used by the top 400 retailers', *Web Marketing Today Premier*, 89, 2005. Available at: [www.wilsonweb.com/wmtp8/400\\_ecommerce\\_software.cfm](http://www.wilsonweb.com/wmtp8/400_ecommerce_software.cfm), accessed 15 July 2008.
56. Colin Gray and Salvatore Zappalá, 'Introduction', in Salvatore Zappalá and Colin Gray (eds), *Impact of E-commerce on Consumers and Small Firms*, Ashgate, Hampshire, UK, 2006.