

The Strategic Outsourcing Decision of IT and eCommerce: The Case of Small Businesses in New Zealand

Nabeel A. Y. Al-Qirim^{1,2}

(1) Auckland University of Technology, New Zealand

(2) Deakin University, Melbourne, Australia

Email: nabeel.alqirim@aut.ac.nz

ABSTRACT

In New Zealand, small to medium-sized enterprises (SMEs) play a very important role in the economy by their contribution to both employment and gross domestic product. Addressing issues pertinent to SMEs is of paramount importance in driving this sector forward. Information Technology (IT) emerges as one main enabler for SMEs in automating their operations, seeking new opportunities and enhancing their strategic business positioning in local and international markets. However, the inability of SMEs to handle the dynamic nature of IT due to problems inherent in their size, structure and resources, makes it difficult for them to take appropriate decisions to benefit from the IT technologies. The advent of eCommerce (EC) has only compounded this problem. One way out of this complex situation is to outsource the IT and EC technology requirements by the SMEs. This study endeavours to identify the pattern of IT and EC outsourcing issues of SMEs within New Zealand. This research attempts to identify the main driver for IT/EC outsourcing in SMEs as well as to explore the problems of IT outsourcing and makes suggestions for further research in this crucial sector.

Keywords: *IT and eCommerce outsourcing, strategic outsourcing decision, outsourcing profile, New Zealand SMEs.*

INTRODUCTION

Small and medium-sized enterprises (SMEs) play a significant role in many countries. SMEs constitute around 95 percent of enterprises and account for 60 to 70 percent of employment within the countries of the Organisation for Economic Cooperation and Development (OECD, 1997). In New Zealand SMEs play a significant role in the economy by contributing (35%) of national output and 96% of the total number of firms and provide employment for 41% of the labour force (MOED, 2000). Being more flexible, innovative and incurring lower overheads, SMEs are proving their importance in facing increased global competition and in introducing inventions and innovations (Iacovou, Benbasat, & Dexter 1995).

The application of Information Technology/Systems (IT) and electronic commerce technologies (EC) provide unique opportunities to small businesses (Paraskevas & Buhalis, 2002) and to New Zealand SMEs specifically due to the geographical remoteness and from the time differences which separate New Zealand from the rest of the world (Abell & Lim, 1996; Cameron & Massey, 1999; MOC, 1998; Peters & Paynter, 1999). In addition, the uniqueness of the New Zealand perspective stems from other factors as well (NZStat, 2001):

- 1- Eighty-four percent of the New Zealand sector is dominated by micro-enterprises employing up to five employees only (MOED, 2000).

- 2- The population in New Zealand is relatively small (3.82 million) with more than one third of the population residing in the Auckland region (1,158,891). This factor makes the New Zealand market quite small in comparison with other large nations.

However, the review of the IT literature in small business reveals two important features. Firstly, SMEs are characterised by resource-poverty at different levels, e.g., financial, having IT experts or expertise in IT, time, and planning (Bili & Raymond, 1993; Cragg & King, 1992, 1993; Paraskevas & Buhalis, 2002; Soh, Yap & Raman, 1992). Consequently, the usage of IT/EC technologies by SMEs is still in its early stages or under-utilised (Soh et al., 1992). Secondly, SMEs face challenges in choosing an appropriate technology or supplier and usually they are quite vulnerable to other environmental forces (Bili & Raymond, 1993). The IT arena is currently characterised by an ever-increasing range of products and solutions. With the advent of the Internet and its use for commercial transactions, the range of choices and product offerings in IT has spread across the globe, unimaginable only a few years ago. The wide range of offerings of IT products, specifically in the EC technologies sector, has made the task of appropriate choice of IT/EC products and their suppliers a very complex process for businesses (TOI, 2000).

In the situation where SMEs lack the wherewithal to buy IT/EC technologies and the ability to decide on what technologies to choose, outsourcing emerges as one possible way of accessing these technologies. Smith, Mitra and Narasimhan (1998) define IT outsourcing as “the use of external agencies to process, manage, or maintain internal data to provide information-related services” (p 62). Outsourcing is considered one of the most significant developments of the new millennium and one of the most important management ideas and practices of the past 75 years (Anonymous, 2003). The strategic importance of outsourcing in IT planning and integration has been suggested by the IT literature (Grover, Cheon & Teng, 1996; Luftman, 1996). We are witnessing a shift in a paradigm amongst organisations dictated mostly by building and retaining IT systems in-house to a paradigm where these organisations attempt to depart from such systems focus to information utilisation and management (Teng, Cheon & Grover, 1995) – those researchers highlighted that information systems outsourcing is not so much an information systems decision as a strategic resource outsourcing decision. Outsourcing may help an organisation provide better services and acquire and maintain competitive advantage (Teng et al., 1995). For example, Internet commerce in this regard has helped many operators to team up with other small businesses to offer better services and to collaborate on Web site content (Paraskevas & Buhalis, 2002). However, reaching a strategic outsourcing decision is not a straightforward process and is fully dependent on striking a perfect match between identifying the outsourced resource and the appropriate outsourcer (Teng et al., 1995).

In the early nineties, outsourcing was viewed as the last resort for big companies only (Barrett, 1996). In comparison with small businesses, large organisations started to recognise the separation of data ownership from data processing, the capability of outsourcers in providing quality services and the importance of focusing on more pressing activities (Grover et al., 1996). However, with the further proliferation of different IT products in the market, reduced prices and the developed awareness about the importance of IT among organisations, outsourcing suits smaller organisations with limited IT capability (Teng et al., 1995; Turban, Lee, King & Chung, 2000). Takac (1994) and Barrett (1996) highlighted the fact that cost savings were often the main reason for outsourcing. When the costs of IT related activities increased, management in the mid 1990s onwards increasingly turned to outsourcing as a cost-effective solution to maintain existing systems and applications and to introduce new systems

(Currie, 2000). Lately, organisations have started to outsource a greater range and depth of services, to be more selective in terms of the functions outsourced and to have more sophisticated interrelationships with outsourcers (Grover et al., 1996). Further, outsourcers started to accept management responsibility and risk (Grover et al., 1996; Teng et al., 1995). Outsourcing has been viewed and justified by other researchers on the ground that it enables businesses to concentrate on core business competencies (Beaumont & Costa, 2002; Hamel and Prahalad, 1994; Kannan & Tan, 2002; Teng et al., 1995). Such firms viewed IT as a separate function from their main business activities. Such a view meant that where IT is not the strategic business entity, it can be outsourced to a third party without adversely affecting business performance and this allow businesses to concentrate on more pressing business needs or core IT activities. Although, the outsourcer's economies of scale may provide considerable cost savings, the economics of outsourcing remain controversial and each case must be decided on its merits (Frenzel, 1996). For example, Beaumont and Costa (2002) highlighted the fact that ascertaining all costs relevant to outsourcing (e.g., in comparison with in-sourcing) decisions could be a very difficult task and hard to quantify as there are many intangible or hidden costs. Barthelemy (2001) confirmed the same and highlighted that unforeseen costs can disparage the anticipated benefits.

The main reasons for outsourcing in organisations vary but they are mostly motivated by strategy, technical, financial, or scale considerations. In their review of the literature, Teng et al. (1995) found earlier research employing different theories to explain information systems outsourcing including innovation diffusion, political process and transaction cost theories. They observed that none of these research studies were based on strategy theories. Accordingly, they attempted to review two theories within the strategic management area that concern the deployment of resources: resource-based theories and resource dependence theories. They investigated their effectiveness in explaining the strategic outsourcing decision of information systems in organisations.

Resource-based theory is internally focused and views a firm as a collection of productive resources such as physical capital, human capital and organisational capital. Organisations capitalise on such strategic resources to develop a core competency. Strategic resources can be either physical or informational and should possess the following aspects (Barney, 1991):

- i. Resources should add value to the organisation.
- ii. Resources are heterogeneous and rare.
- iii. Resources are perfectly unique and cannot be imitated.
- iv. Resources are not substitutable.

Thus, systems involved in delivering such strategic resources are considered strategic and could assist the organisation in sustaining its strategic edge in the marketplace. Teng et al. (1995) reached a conclusion that in certain circumstances, acquiring external complementary resources may be necessary to develop new capabilities in order to fill gaps in such internal resources; or when the performance of existing resources falls short of expectations, outsourcing can be a strategic response to strengthen this resource.

The theory of resource dependence is externally focused and looks at the external environment of the organisation. In this regard, organisations are found to depend, in varying degrees, on some elements in their environment, e.g., dependence on supplier for raw materials. By outsourcing, organisations can guarantee the flow of this external resource to enhance their strategic edge in the marketplace. Accordingly, organisations could capitalise on outsourcing

as a strategic tool to provide surrogates to any shortages faced in strategic resources. However, Teng et al. (1995) argue that in the resource dependence theories, organisations are more involved with suppliers and enter into exchange relationships with outsourcers – this may influence the extent of the outsourcing relationship between organisations and their outsourcers. Teng et al. (1995) investigated the outsourcing phenomenon using the strategic orientation theories. They argued that the strategic orientation (culture or behaviour: defender, reactor, aggressiveness) of a firm could influence its propensity to outsource information systems functions. However, they did not find the strategic orientation theories significant in identifying any difference between firms employing different forms of IT strategies. On the other hand, the resource-based theories and the resource dependence theories were significant in highlighting the importance of the information quality (systems development process and user service) and information systems support quality on the strategic outsourcing decision – not the financial and cost problems. In a study conducted by KPMG/ Nolan Norton Institute (1999) covering 300 surveyed organisations in Australia and New Zealand it was found that two third of them were outsourcing their operations and support functions. Two interesting issues have come to the fore in this study. Firstly, the majority of the organisations, particularly the smaller organisations, do not perform any type of audit of their outsourcers' delivery and performance. Secondly, the main driver for the outsourcing decision is the need for access to skills rather than cost savings. Malcolm (2003) confirmed the same and highlighted that the pros of outsourcing include cost benefits, though as a driver this has become less important than being able to concentrate on a company's core competencies. Also it's a relatively low-risk way an organisation can gain skilled staff and infrastructure to support a new direction. Beaumont and Costa (2002) suggested the same. On the other hand, the cons of outsourcing are a lack of control, loss of accountability and the expenditure of resources on managing the transition from in-house to outsourcing, and getting both parties to understand what is to be delivered (Beaumont & Costa, 2002; Malcolm, 2003).

Grover et al. (1996) discussed the theories of resource dependence as well. They discussed the theory of transaction cost as another useful theory in explaining organisational motivation for outsourcing. Transaction cost economics is a technique for comparative analysis where alternative modes of organisations are examined according to their ability to minimise transaction costs when coordinating transactions (Williamson, 1998). This theory looks at the tradeoffs between e.g., in-sourcing and outsourcing transaction costs and which best economical typology to follow. The organisation here is confronted with the task of choosing between developing its own IT/EC capability in-house and hence, gains economies of scale (e.g., larger and international enterprise) or benefiting from the vendor's economies of scale. For example, economies of scale could assist the outsourcing vendor in delivering state-of-the-art applications and other IT/EC services to large number of businesses at very reduced prices (Beaumont & Costa, 2002) – this is quite obvious in the case of standard or new products and services (ISP, ASP). On the other hand, some organisations face other challenges which make transaction cost theory and hence, outsourcing, not practical for them. For example, outsourcing niche or intellectual skills and systems is unwarranted and could lead to the loss of distinctive competencies to the outsourcer (transfer of knowledge) (Beaumont & Costa, 2002). Grover et al. (1996) found similar results to the ones found in Teng et al. (1995) research. In addition, they highlighted the importance of the quality and the value-added of the outsourcer's information systems services on the outsourcing decision in organisations. Fostering a long-term interactive relationship based on trust, communication, satisfaction and cooperation is essential to achieving the greatest benefit from outsourcing.

In the light of the IT/EC literature in SMEs (Blili & Raymond, 1993; Cragg & King, 1993; Poon, 1999; Thong, 1999), this literature points to deficiencies at various organisational and individual, managerial, technological and environmental levels in SMEs. The IT function in most SMEs is still in its early stages, under-utilised and used as a supplement to existing accounting functions (Blili & Raymond, 1993; Cragg & King, 1993; Soh et al., 1992). There is not enough managerial expertise to plan, organise and gain leverage from directing the use of IT resources (Blili & Raymond, 1993). It could be hypothesised here that most of the SMEs lack such internal IT/EC capability and hence, would rely on outsourcing in order to acquire such capability. It is highly unlikely that SMEs will be able to in-source their IT/EC functions in-house. Most likely they will outsource most of their IT/EC functions to outside vendors. Accordingly, the resource-based theories and the resource dependence theories could be more applicable here to explain the strategic outsourcing decision of IT/EC in SMEs in New Zealand than the strategic orientation theories or the transaction cost theories. These assertions are investigated in this research.

RESEARCH QUESTIONS AND OBJECTIVES

Based on the magnitude, complexity, potential irreversibility, and other attributes of emerging patterns in information systems outsourcing, the decision to outsource information systems functions is being conceptualised as a strategic decision in organisations (Teng et al., 1995). Teng et al. (1995) found that relatively few studies have provided an in-depth examination of the outsourcing phenomenon. The foregoing discussion in the current research clearly points to the fact that the SMEs are confronted by an array of bewildering products in a rapidly changing market and face the difficult task of making the appropriate choice of IT product or solution for their businesses operations. There are many issues critical to such a decision:

- i. Why do the SMEs in New Zealand Businesses go for IT outsourcing?
- ii. What are the IT activities and products that are outsourced?
- iii. What difficulties do they face in the process?

This study seeks to address these basic questions. Therefore, this research is interested in exploring the outsourcing decision of IT/EC in SMEs in New Zealand. Whether this decision is a strategic one needs to be explained as well in this research. Accordingly, the study has the following objectives:

- i. To identify the drivers pertaining to IT outsourcing by SMEs in New Zealand.
- ii. To identify the areas/activities outsourced in their business operations.
- iii. To examine the problems faced in outsourcing by SMEs in New Zealand.

The above research questions and objectives are important to researchers, legislators, and to professionals existing in New Zealand or elsewhere. There is not much research on IT outsourcing in small business in general and particularly in New Zealand. Factors endorsed/refuted in the current study would assist the above interested parties in knowing different facilitators and impediments to the outsourcing of IT/EC in the small business sector. Although generalising the outcomes from the current study to the whole of the SME population in New Zealand is not possible due to the smallness of the size of the sample, it does indicate broad trends for future in depth study. This research represents an initial step in this direction and highlights the important issues pertaining to outsourcing in SMEs in the context of New Zealand.

In the following, this paper explores the size of the global outsourcing market including New Zealand. The research then proposes a conceptual framework for outsourcing based on two dimensions, namely dependency on the technology supplier and the extent of outsourcing. The research then introduces the research design, which includes information about the sample in the survey, data analysis and discussion.

THE INCREASING SIZE OF THE GLOBAL OUTSOURCING MARKET INCLUDING NEW ZEALAND

IDC (2001a) indicated that global spending on IT services would reach USD 700.3 billion by 2005, up from USD 439.9 billion in 2001. IDC found that the US would remain the biggest spender on IT services at USD 335 billion in 2005, up from USD 206.9 billion this year. TOI (2000) expects a growth in small business outsourcing contracts exceeding 25%. IDC (2001a) found that spending in Western Europe will grow from USD 127.5 billion to USD 192.4 billion in the same period, and spending in Japan will increase from USD 53.2 billion to USD 75.2 billion. Spending on IT services in the rest of the world will amount to USD 52.5 billion to USD 97.7 billion.

Even though the above-mentioned forecasts implicitly point to increasing size and scope of contracts, Currie (2000, p. 177) observes, “most companies tend to prefer to enter outsourcing contracts which are smaller (in money), shorter (in duration) and more narrow in scope (range of IT services)”. However, the mega-deals, which involve total outsourcing, continue to gain media attention due to the dollar value of such deals (Lacity & Willcock, 2001).

IDC (2001b) indicated that spending on IT services in Asia-Pacific (excluding Japan) is predicted to rise from USD18 billion by the end of 2001 to USD42 billion by 2005. China will have the biggest growth in IT services spending, up to USD9 billion in 2005 from USD900 million in 2000. IT services spending in Singapore will double from USD1 billion in 2000 to USD2 billion by 2005. The sectors emerging as the highest IT services spenders in the region are communications, banking, and government.

In comparison with the US market, IDC (2003) estimates the New Zealand outsourcing market in 2002 at NZ\$599.6 million, representing a growth of approximately 11.3% over the NZ\$538.8 million market value of 2001. Despite this healthy growth, the pattern of demand for IT outsourcing services remains irregular, which is a direct reflection of the continually significant contribution of a small number of large IT outsourcing contracts. Furthermore, the New Zealand IT outsourcing market sector continues to reflect a high degree of vertical industry concentration, with the finance, communications, and government sectors accounting for a significant amount of the IT outsourcing contracts signed in 2001.

For example, the major telecommunications provider in New Zealand “Telecom” entered in 1999 into a strategic relationship with global information services company EDS (EDS, 2003). The relationship includes a 10-year, NZ\$1.5 billion agreement for EDS to supply all of Telecom’s IT services and an agreement to work together with Microsoft to develop and deliver online solutions to customers. EDS will manage and operate Telecom’s companywide information systems and technology delivery, including its enterprise applications, technical infrastructure and IT assets. EDS will also manage and operate Telecom’s billing and customer information systems. EDS is offering to employ all 600 Telecom staff affected by the outsourcing agreement. As part of this strategic relationship, Telecom intends to take a significant shareholding in EDS (up to 49 percent of EDS (New Zealand) over the next four years) (EDS, 2003).

Lately, it was announced in the print-media (Malcolm, 2003) that the giant dairy cooperative in New Zealand, Fonterra, is planning to outsource the company's IT processes, desktop and LAN, midrange servers and networks (voice and data). This includes desktops and laptops, servers, networks, helpdesk services and utility software such as Microsoft Office and email systems such as GroupWise and Lotus Notes. Fonterra operates in 34 countries and aims to establish and manage its IT infrastructure as an effective, integrated and global services utility. The global outsourcing exercise covers over 1000 utility and application services in 30 countries and 327 locations where desktops are located across the 34 countries. Fonterra CIO indicated that they are looking for suppliers, which are financially and technically able to provide professional services. It believes outsourcing could be the best way to achieve this. The decision to outsource is likely to be based as much on Fonterra's overseas needs as local ones. IDC predicts the outsourcing market for 2004 will be around \$678.9 million and a Fonterra outsourcing deal could add \$100 million to that in its first year.

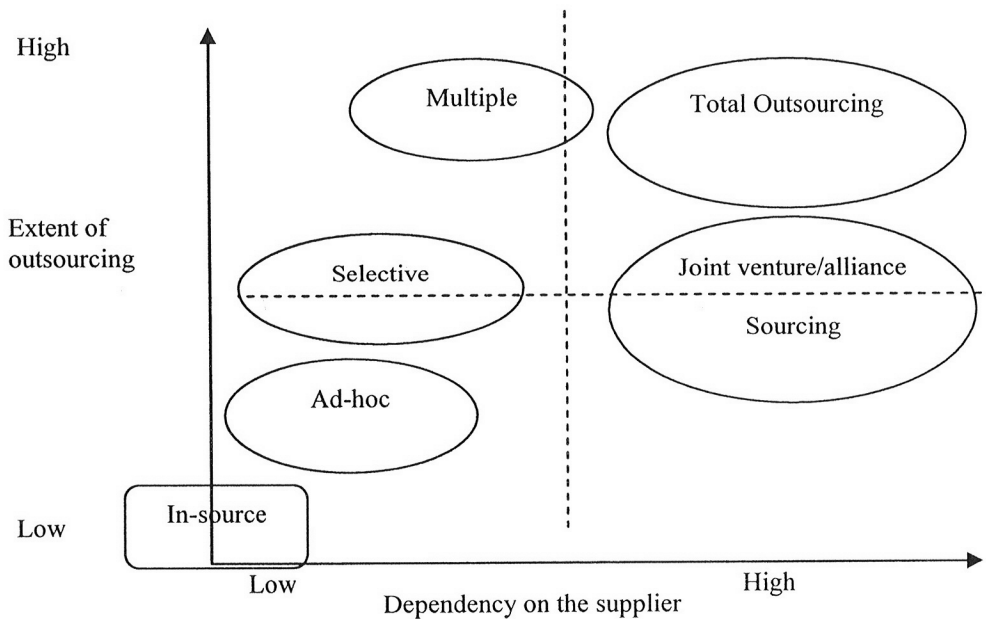
TYPOLOGY OF OUTSOURCING: A CONCEPTUAL FRAMEWORK

Luftman (1996) has posited that organisations face a choice of three types of outsourcing. They are (1) ad-hoc outsourcing, which is for a specific skill or resource in order to supplement the internal staff, (2) selective outsourcing, which is used in designated areas to supplement internal resources and low risk commodity projects, and (3) full scale outsourcing, which is used in close conjunction with internal resource strategy and for strategic reasons leading to a contract or even an alliance. Other research provided similar classifications. For example, Beaumont and Costa (2002) indicated that IT outsourcing could be comprehensive (i.e., full scale outsourcing) or partial (i.e., selective outsourcing). Schneider and Perry (2001) found organisations resorting to early outsourcing in order to launch projects quickly; late outsourcing to outsource the ongoing operation of a strategic resource in order to focus on more core activities such as developing new technologies that will further provide competitive advantage; and partial outsourcing where the organisation identifies specific component of the project that can be completely developed and maintained by a vendor that specialises in a particular function. Grover et al. (1996) indicated that organisations could obtain outsourcing services through complete outsourcing, facilities management, systems integration, time-sharing, and other contracts (rental, installation and procurement, and maintenance and programming). As discussed earlier, Teng et al. (1995) linked the outsourcing decision with the organisational strategy. They suggested that the strategic orientation of the organisation influences its outsourcing decision whether to in-source or outsource the IT function. Based on their extensive empirical research conducted in US and Europe, Currie and Willcocks (1997) suggested four distinct types of outsourcing strategies:

- 1- Total outsourcing such as developing partnership or a long-term contract with a single supplier and hence, share risk/reward with supplier. The focal point in this approach is to focus on core business activities and thus, retain strategic control over non-IT activities.
- 2- Multiple supplier/selective sourcing such as developing short-term contracts and alliance with different suppliers. This approach could increase the competition between suppliers leading to better services and prices from suppliers. The essence of this approach is still focusing on core business activities. However, a company here may opt to outsource specific IT applications to specialist suppliers or seek to reduce its internal IT facility over time. Thus, selective outsourcing is resorted to when the IT technology to be outsourced is of a higher order but for a specific (and narrow) activity (e.g., integrated ERP system from one vendor such as SAP). On the other

- hand if such needs are more in number, the firms have a choice of choosing multiple outsourcing. Businesses would choose, according to them, the most competent supplier for each of those activities (e.g., accounting application from one vendor, manufacturing application from another vendor, inventory, sales & marketing, etc.).
- 3- Joint-venture/strategic alliance sourcing such as taking a large share ownership of the IT supplier where the client retains control over partner. The IT supplier may be a new or existing company. This approach could result in generating new business opportunities (e.g., selling through a Web site globally).
 - 4- In-sourcing such as retaining an in-house IT department where IT here is seen as core business. The company retain high level of in-house technical expertise. This approach is useful when the supplier/market conditions are inadequate or when the company distrusts the supplier motivation/capability (risky to outsource).

Figure 1: A Typology of IT Outsourcing



Synthesising the two studies mentioned above, the author proposes a conceptual framework for outsourcing, which offers a choice of five different options based on two dimensions, namely dependency on the technology supplier and the extent of outsourcing (Adapted from Currie, 2000: 183) (Figure 1). The dependency on supplier by the client is shown on X-axis and the extent of outsourcing is shown on Y-axis. The extent of outsourcing refers to the percentage of IT work done by external supplier(s) or resources attributed to the contract(s) (Currie, 2000). On a third dimension, this research is interested in exploring the factors that influence the outsourcing decision of those SMEs in New Zealand. The above typology could be useful for both researchers and professionals. Identifying the outsourcing strategy of SMEs and then distributing the SMEs on the above taxonomy (Figure 1) according to their outsourcing strategy could show interesting outsourcing trends. These trends could be analyzed in order to identify implications in the outsourcing strategy of such SMEs. Professionals working in the

IT industry could fine-tune their marketing strategies to match with a specific dominant or important trend.

Total outsourcing involves large interdependence between client and supplier where the client in this scenario lack any IT skills or competencies and are completely dependent on the supplier (e.g., Web site hosting). On the other hand, in-sourcing reduces client-supplier interdependence and the extent of outsourcing to a minimum level. Where a business seeks long-term support of given activities, whose complexity is relatively high, they have the option of joint venture or alliance sourcing (e.g., with EC suppliers/consultant). Ad-hoc is a simpler form of multiple supplier/selective sourcing and could easily develop into either one. It is expected that the interdependence between supplier and client and the extent of outsourcing in multiple sourcing be higher than selective sourcing. However, selective outsourcing and multiple sourcing are closely related since businesses may shift from one typology to the other, e.g., discovering that the organisation requirements could be split into different activities, which could be outsourced from different specialised IT suppliers. Interestingly, a recent study by Lacity and Willcocks (2000) surveyed across 600 UK firms and US revealed that the majority of the organisations pursued selective outsourcing because it was less risky than total outsourcing. In fact, they used multiple suppliers rather than single suppliers. They identified two main drivers of outsourcing: cost reduction and refocusing of in-house IT staff on more value-added IT work and business applications. Their study also stressed the importance of disaster recovery services.

The type of the outsourcing for which a business opts will be an outcome of the two dimensions mentioned above along with other factors such as finance, stage of growth, acuteness of the need for outsourcing etc.

RESEARCH DESIGN AND METHODOLOGY

To the best of the authors' knowledge, this study about IT outsourcing by SMEs is first of its kind in New Zealand and it is exploratory in nature. To identify the areas of concern for SMEs in IT outsourcing two SME owners were interviewed and then a focus group consisting of four small businesses from Auckland city was conducted. Some variables were identified and they were further supplemented by more factors found in other studies (Currie & Willcock, 1997; Lacity and Willcock, 2000). The interviews assisted in profiling the hardware and software outsourced by the two SMEs and in providing additional details which helped in adding more details to different issues surrounding IT/EC outsourcing (see Tables 2, 3, 4, and 5 below). In comparison with the outsourcing issues extracted from the literature, the two interviews did not generate any significant outsourcing issues. The focus group was used to confirm the relevance of the developed factors from the literature and the two interviews (Bloor et al., 2001; Stewart & Shamdasani, 1990).

Based on the information gathered using the above resources, a draft questionnaire was designed. One SME and one IT vendor for clarity, coverage and appropriateness of questions then further examined it. Suggestions were made about the wording of some of the questions and concerns were raised relating to the length of the questionnaire. Suggested modifications were included in the final survey questionnaire. Accordingly, the final questionnaire contained in all 15 questions covering both nominal and ordinal variables. It is worth noting that the questions in the "drivers for outsourcing" section below (questions: what are the main reasons for outsourcing IT and eCommerce by your business) were measured using five-point Likert scales (1 → 5), representing a range from 'not important' to 'very important', respectively. The

different variables along with data analysis are explained in detail in the research analysis section below.

According to the Ministry of Economic Development (MOED, 2000), New Zealand SMEs are defined as enterprises employing 19 or fewer full-time (working 30 hours or more per week) equivalent and working proprietors plus half the number of part-time employees and working employees (FTEs). Small enterprises are defined as those employing 0-5 FTEs (often called micro-businesses) and medium-sized enterprises as those employing 6-19 FTEs. Other countries (e.g. Europe and the US) define their SMEs as having a much larger number of employees (500 or fewer). Therefore, selecting a range of 100 FTEs and fewer was found adequate for comparison purposes with New Zealand SMEs (Cameron & Massey, 1999; Igarria, Zinatelli & Cavaye, 1998; MOED, 2000). This makes comparison possible between the research results of this study and those of other similar studies in different countries.

The sample was sought from the Auckland region using the public telephone directory. However, this directory did not classify the businesses according to their business-size. Therefore the researcher deemed that a telephone call was necessary to select the businesses that met the above size-limit. 163 companies were selected randomly from the telephone directory. During these telephone calls, the companies that met the size-criterion were invited to take part in the survey after hearing the research objective and being assured of the participants anonymity. The telephone calls were mostly with the managers of the business or the person responsible for IT in the organisation or the finance person (accountant). The questionnaires were mailed or delivered by hand to those persons. Out of 100 questionnaires sent, 59 responses have been received of which only 51 were usable. Hence the effective response rate was 51%. This is not only a good response rate but also indicative of the interest in this study by the respondents. The data was analysed using the SPSS package. Since the study is exploratory and trying to identify broad trends, simple mean scores and frequencies were derived to draw conclusions.

RESEARCH ANALYSIS AND DISCUSSION

Figure 2 provides different demographic details about the SMEs in the sample. More than 78 percent indicated that the manager was the owner (or one of the owners) of the business (Figure 2a). In terms of business sector, 35 percent of them belong to wholesale/retail category, 19.6 percent each from manufacturing and IT & Communication sectors (Figure 2b). 92.2 percent of the SMEs have staff of less than 20 (Figure 2c). Over two-thirds of them (67.7 percent) have been in business for at least 5 years and only 10 percent of them have come into existence in the last year. 72 percent revealed their turnover, of them 91 percent have turnover under \$ 5 million a year (Figure 2d). Of the 51 respondents, an overwhelming majority of them (71 percent) currently outsource their IT requirements and another 17 percent plan to outsource in the next two years.

Figure 2: Statistical information about the SMEs in the sample.

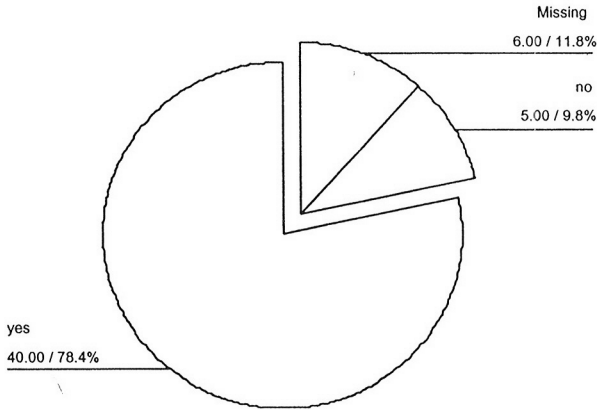


Figure 2.a: Manager is owner.

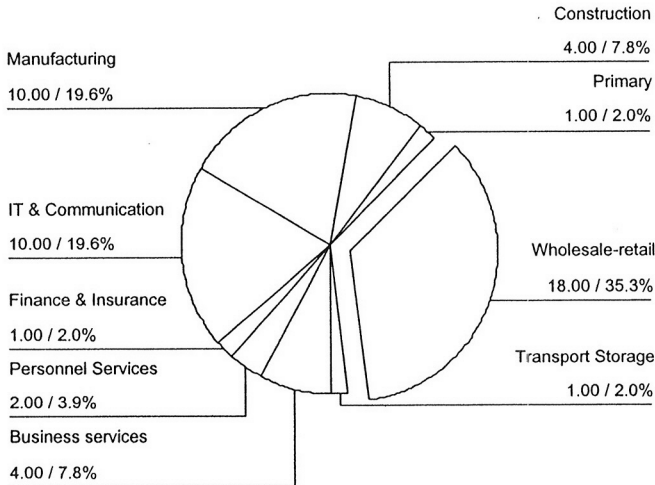


Figure 2.b: Industry distribution in the sample (Primary activity: manufacture of parts or Components)

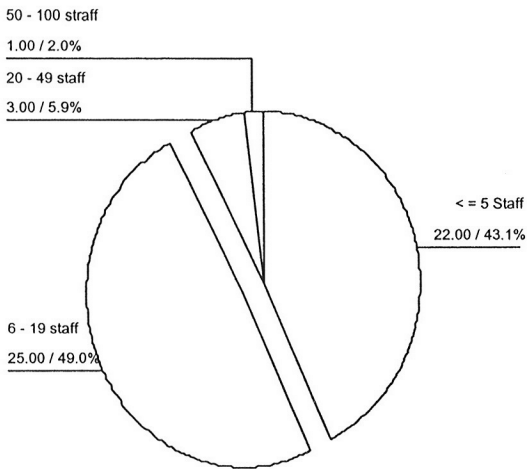


Figure 2.c: The distribution of the SMEs by their size.

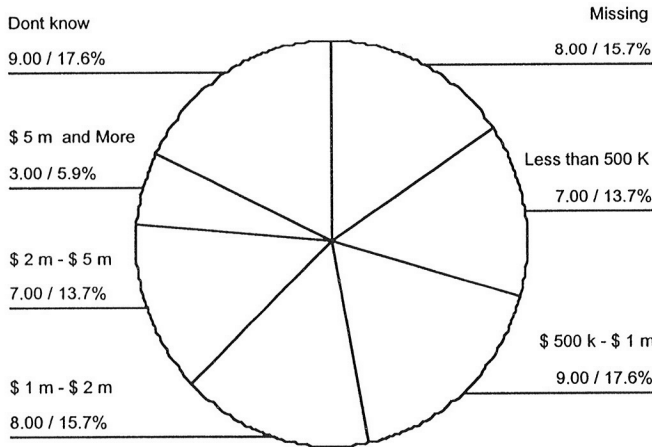


Figure 2.d: The annual turnover (NZ\$) of the SMEs in the sample.

Drivers for Outsourcing

In line with the earlier argument, cost reduction was the main driving factor for outsourcing in the past (Barrett, 1996) and in reducing permanent jobs among IT/EC staff (Bentley, 1998). However, other studies have pointed to reasons other than cost being the primary reason for outsourcing (Grover et al., 1996; Teng et al., 1995). For example, Pastore (1996) found the desire to offer quality service to the customer overrides cost considerations. Likewise, a study by KPMG/ Nolan Norton Institute (1999) revealed that the need for “access to skills” is the most important consideration for outsourcing decisions.

According to Lacity and Willcocks (2000), the most commonly achieved benefits from outsourcing were: cost reduction (although modest savings), refocusing of in-house IT staff on more value-added IT work and business applications, improved flexibility of IT since the outsourcer's costs are more flexible than in-sourcing costs which are fixed. Other benefits identified but with minimal influence are better quality service, improved use of IT resources, access to scarce IT skills, improved business flexibility, focus on core business, better management control, access to new technology, balanced processing loads, and help in cash flow problems. Earlier, the Outsourcing Institute (cited in Barrett, 1996: 3) also listed ten top reasons for outsourcing: improve company focus, gain access to world-class capabilities, accelerating reengineering benefits, shared risks, free resources for other purposes, make capital funds available, cash infusion, reduce operating costs, resources not available internally, and out of control. Other research pointed to similar factors (Grover et al., 1996; Teng et al., 1995). In a recent survey released at the 2001 Outsourcing World Summit (Anonymous, 2003), the major reasons cited for outsourcing were: cost reduction (36%), focus on core competencies (36%), improved quality (13%), increased speed-to-market (10%), the need for innovation (4%) and the requirements to conserve capital (1%). As against the reasons identified in the past studies, the main reasons as revealed in this study are shown in Table 1.

Table 1: Determining drivers for outsourcing

Sl./No.	Reasons for Outsourcing	Mean Scores	Std. Dev.
1.	Access to Experts	4.08	0.94
2.	To have quality services from outsourcer	3.86	1.09
3.	Access to new technology	3.77	1.03
4.	To have more flexible and responsive systems	3.76	1.12
5.	To have more time to focus on core business competency	3.60	1.25
6.	Reduce costs	3.43	1.25
7.	Reduce risk/uncertainty involved in new IT projects	3.35	1.25
8.	To initiate and operationalise IT projects at the earliest	3.26	1.39
9.	Gain competitive advantage	3.23	1.43
10.	Lack in-house capability	3.21	1.32
11.	Develop new skills in existing workforce	3.00	1.24
12.	In-house IT management is cumbersome	3.00	1.30
13.	Continuing past contracts	2.41	1.05
14.	Organisational restructuring/downsizing	2.09	1.19
15.	Imitate competitors	1.98	1.19

In comparison with the above research, Table 1 reveals very interesting reasons for outsourcing. Cost is no longer the most important consideration and it ranks only 6th in importance. This finding is in tune with the earlier studies by Beaumont and Costa (2002), Grover et al. (1996), KPMG/ Nolan Norton Institute (1999), Pastore (1996) and Teng et al. (1995). These studies have pointed to reasons other than cost as important drivers for outsourcing. Beaumont and Costa (2002) attributed that to the maturity of the IT outsourcing market where executives started to realise the importance of intangible benefits and establishing successful partnerships with dependable vendors.

Five drivers for outsourcing that rank ahead of cost are access to experts (having IT/EC expertise), improving the quality of service, access to new technology, flexible and responsive systems, and focus on core business competency. The priority evident in reasons for outsourcing points out that SMEs in New Zealand embrace external experts in order to have quality IT/EC services and to enhance and maintain their internal systems and their services to their customers. This finding is important to technology vendors in that they could market their experts in the IT/EC area to SMEs in New Zealand. SMEs would rely on those IT/EC experts to gain access to new technology or to maintain existing systems. SMEs do not consider their IT/EC systems as strategic as such and hence, would rely on outsourcing in order to have more time to focus on other core business competency(s). The ranking of the competitive advantage in Table 1 further supports this justification. In order to confirm this assertion and in light of the IT/EC literature in SMEs in the introduction section above, more work is needed to investigate the depth and the sophistication of the IT/EC infrastructure in SMEs in New Zealand. It is also important to investigate this assertion in the light of the other characteristics of SMEs (e.g., small number of employees, resource poverty). For example, SMEs did not rank developing new skills in the existing workforce as highly significant. Again, this could be justified on the basis that SMEs in the sample retained limited number of employees or their IT/EC systems are so preliminary and rudimentary that they do not require separate IT staff/department or they did not consider their IT/EC strategic enough to justify developing new IT/EC skills amongst their employees. This assertion could be endorsed by the reason, "access to experts" mentioned earlier, as SMEs seem to rely more on outside experts to achieve such tasks. The ranking of the "lack of in-house capability", the "reducing risk/uncertainty in a new project" and the "quick operationalisation" in Table 1 could be used to suggest such weak IT/EC infrastructure in SMEs.

Reviewing the research results with respect to the theories discussed earlier in this research, it could be argued here that the research results are in line with the strategic resource theories: resource-based theories and the resource dependence theories (Grover et al., 1996; Teng et al., 1995). SMEs in New Zealand favour outsourcing IT/EC experts in order to maintain the flow of quality services into their organisations. Those experts are used to acquire new IT/EC systems or to maintain existing systems and hence, focus on other non-IT/EC strategic activities. Thus, the transaction cost theories and strategic orientation theories were not supported in this research. However, more work is needed before generalising these results. Factors such as continuing past contracts, organisational restructuring/downsizing, and imitating competitors in outsourcing are being practiced by some SMEs but were not ranked highly in Table 1. Targeting a large sample in any future research could provide more conclusive and generalisable results.

Outsourcing Profile

IDC (2001a) found that 41 percent of IT spending goes on technology support and systems integration and expects that spending on other IT services such as application outsourcing, network consulting, and infrastructure management will grow more quickly through to 2005. Outsourcing is on the rise and moving beyond application-related services to include business process outsourcing (BPO), call-centres and infrastructure services. A recent study by PricewaterhouseCoopers found that around 73 percent of US companies presently outsource one or more business processes to external service providers (BPO) (Anonymous, 2003). Grover et al. (1996) divided the outsourced information systems functions into five areas: applications development and maintenance (including systems analysis & design), systems operations (mainframe and minicomputers, backup and recovery, systems software

maintenance), telecommunications and networks management (voice, video and data; network operations and maintenance), end-user support (PC procurement; user education, training and consulting) and systems planning and management (project, personnel, financial, and administrative management). They found that the attainment of benefits is only true for outsourcing of systems operations and telecommunications. Bentley (1998) found that the three areas that are increasingly being outsourced by organisations are software solutions, project management, and network development and management. Currently, most mainframe management, computer maintenance, help desk support, local/wide area network deployment and management, and application-maintenance is subcontracted. Conversely, client/server applications development is in-sourced because it is viewed as more strategic (Barrett, 1996). It is extremely difficult to manage a mix of highly skilled people and very expensive to keep updating their skills. In a recent survey undertaken by Lacity and Willcocks (2000), it was found the majority of the outsourced activities were in IT infrastructure activities such as disaster recovery rather than in IT development or IT strategy. However, this finding may apply to larger organisations more than smaller ones.

The study tried to use the above literature and the interviews with the two SMEs to identify the areas of outsourcing undertaken by SMEs. Those were limited to the ones shown in Table 2 and classified according to ownership control and maintenance of hardware. Leasing the hardware is considered another form of IT/EC outsourcing and it may include different options such as technical support and free upgrades from the outsourcing vendor. SMEs could even negotiate with their suppliers the possibility of lease-to-return or lease-to-buy at the end of the leasing contract. Leasing could be a strategic option to consider by SMEs as it hedges against technology obsolescence where SMEs could negotiate replacing the leased hardware e.g., every two years. However, this depends on the pricing model of the vendor. In the questionnaire, it was highlighted that leasing includes the maintenance component as well. The responses are shown below in Table 2.

Table 2: Profile of hardware outsourced

Sl./No	Hardware items	Ownership				Maintenance	
		Owned		Leased		Number of Businesses	% Of Sample
	IT-Hardware:	Number of Businesses	% Of Sample	Number of Businesses	% Of Sample		
1.	PCs (Desktops)	47	92.2	4	7.8	37	72.6
2.	Mid-range servers	31	60.8	5	9.9	28	54.9
3.	Data cabling	37	72.5	4	7.8	28	54.9
4.	Networking	37	72.5	1	1.9	24	47.1
5.	Video conferencing	3	5.9	0	0	2	3.9
	EC-Infrastructure:						
1.	Internet	32	62.7			28	54.9
2.	Intranet	13	25.5			9	17.6
3.	Extranet	3	5.9			2	3.9
4.	EDI	7	13.7			7	13.7

Table 2 indicates that outsourcing in SMEs is a phenomenon mainly related to maintenance and ownership of IT and EC hardware equipment. This goes along with the above research, which highlights the importance of outsourcing operational aspects (maintenance in this research) as well as telecommunications and networking systems. Nearly three-quarters of the respondents outsource maintenance work for PCs. Maintenance in respect of other IT equipment such as midrange servers, data cabling and networking is outsourced more often. It seems leasing is not a favourable option amongst the SMEs in this research. According to the above literature review in SMEs, this finding could be justified on the basis that the IT infrastructure in SMEs is not that extensive or sophisticated enough to justify spending valuable time on exploring leasing options. More work is needed in order to confirm this justification. Most of the SMEs opted to own their own PCs, servers, data cabling & networking and video conferencing equipment and to outsource their maintenance.

The data dealing with outsourced EC-infrastructure also reveals that only a few SMEs are adopting the EC technologies. Large proportions of SMEs own the EC equipment and outsource the maintenance. Though the study reveals that certain technologies are less outsourced than others (Extranet and EDI), the scope of the study does not permit us to probe the reasons for such variations in the pattern of outsourcing, which may be the focus of a separate study. The respondents were also asked to identify the activities for which software is outsourced. The responses were tabulated in Table 3.

Table 3: Software profile in small business

Sl./No.	Software activities	Count	Percentage
<u>Application Software:</u>			
1.	Customising packages	21	12.7
2.	Application maintenance	19	11.5
3.	Systems design	16	9.7
4.	Systems analysis	13	7.9
5.	Application development	12	7.3
<u>EC-Software:</u>			
1.	Web-site development	27	16.4
2.	Web-site hosting	19	11.5
3.	Web-site maintenance	17	10.3
4.	Web-site integration	13	7.9
5.	Intranet integration	5	3.0
6.	Extranet integration	3	1.8
	Total	165	100.00

Table 3 reveals that main activity of application software outsourcing is in customising readymade packages and application maintenance. Understandably, very low percentages of SMEs opt for outsourcing of application development, as the majority preferred readymade packages. This is important for software vendors working in the area of selling, customising and supporting readymade software solutions.

The main activity of EC software outsourcing is in web-site development, which has to be tailor-made for each business. The other important activities are web site hosting, web-site

maintenance and web site integration. Since small businesses want to go online, it is not surprising to find that the most important outsourced software activity is related to web-site adoption. The ranking of the web-site integration in Table 3 shows that almost half of the SMEs do not integrate their web sites with other systems in their organisations (e.g., web-site with inventory or accounting software). This finding suggests that the web sites of those SMEs are mostly informative and usually do not involve selling or collecting money online.

The study also considered operational activities that are outsourced. The responses are shown in Table 4.

Table 4: Areas of operational aspects outsourced

Sl./No.	Operations/Strategy Activities	Count	Percentage
1.	IT Experts (e.g., developers, consultants)	29	29.6
2.	Help desk services	19	19.4
3.	Disaster recovery services	14	14.3
4.	IT planning and strategy	12	12.2
5.	E-commerce strategy	10	10.2
6.	Data centre service/management	6	6.1
7.	Drafting the outsource contract	5	5.1
8.	Managing project execution	3	3.1
	Total	98	100.0

Table 4 clearly indicates that experts are the most important area (29.6%) of outsourcing for its operational purpose. This reinforces the finding in Table 1, which revealed that the access to experts is the foremost driver for outsourcing. In line with the literature, there is an apparent growth in the areas of helpdesk services (19.4%), disaster recovery services (14.3%), IT planning and strategy (12.2%) and E-commerce strategy (10.2%). Companies that provide help desk services could focus on SMEs as one important revenue channel. The importance of outsourcing help desk and IT experts specifically, further suggest the simplicity of the IT/EC infrastructure in SMEs in New Zealand. It could be argued here that issues such as EC strategy, data centre service/management, drafting the outsource contract and managing projects relate to large enterprises more than SMEs. This is an area for further research.

Problems in Outsourcing

As highlighted in the introduction section, there are many related problems that businesses will have to deal with while undertaking IT outsourcing. Pastore (1996) found that outsourcers’ contracts are inflexible, do not cater to the changes of the organisational needs and do not accommodate the falling prices of the equipment in the market. Outsourcers also indulge in double outsourcing (through sub-contractors) sometimes even without informing the business. According to IDC (cited in Caldwell, Violino & McGee, 1997:1), an average of 36 percent of outsourcing contract and 25 percent of a system integration contract involve subcontractors. Barrett (1996) pointed to other problems such as poor communication between the organisation and the outsourcer and contract drafting as being impediments in the process of outsourcing. The respondents have been asked to identify the problems that they face in outsourcing their IT needs and their responses are shown in Table 5.

Table 5: Problems of outsourcing

Sl./No.	Problems of outsourcing	Count	Percentage
1.	Identifying of right supplier	27	19.3
2.	Right choice from diverse products	18	13.0
3.	Non-performance/under-performance of supplier	18	12.9
4.	Insufficient funds	14	10.0
5.	Exceeding the planned budget	11	7.9
6.	Over dependence on supplier	9	6.4
7.	Conflict with the outsourcers	7	5.0
8.	Inadequate skills in contract negotiations	7	5.0
9.	Inability to establish/maintain standards	7	5.0
10.	Managing different suppliers	7	5.0
11.	Overshooting of time frame	6	4.3
12.	Difficulty in managing contracts	4	2.9
13.	Double outsourcing	3	2.1
14.	Inflexibility of outsourcing contract	2	1.4
	Total	140	100.0

It is revealed that the problems relating to suppliers and their performance are pervasive, constituting more than half of the total problems identified (about 53%), they are: identifying the right supplier (19%), unsatisfactory performance of supplier (13%), overdependence on supplier (6%), conflict with the supplier (5%), supplier's inability to maintain standards (5%), managing different suppliers (5%). Grover et al. (1996) found that application development and maintenance service providers were not achieving expectations of quality of facilities and reliability of service. This problem ranked third in Table 5. The second most important problem is related to the choice from the diverse products (13%) as the SMEs lack such knowledge. It may be appreciated that appropriate choice of products is itself linked to the choice of right supplier who can give such advice. This finding supports the literature. For example, Fichman and Kemerer (1993) point to the lack of unbiased information sources about the different innovations as provided by the different technology vendors, to a level that it is sometimes difficult to tell legitimate enthusiasm from marketing hype. Technology vendors tend to aggressively promote their own products, which are sometimes "masked in new vocabularies that are explainable only by a self-selected cadre of experts". Thus, selecting a suitable innovation for the firm would be a very difficult task.

Though the problem of insufficiency of funds (10%) is significant, it is not the most important problem. This is consistent with the earlier finding in drivers for outsourcing where cost considerations were found much lower in importance. Other important problems identified are inadequate skills in negotiation of the contract and managing the contract. This is understandable since the businesses are small and lacks the skills for contract management (negotiation, finalisation implementation and monitoring). Again they may need some external support and advise for these contracts.

The SMEs Position in the Outsourcing Scenario

This section explores the outsourcing strategy of SMEs. The SMEs were asked in the questionnaire about the different situations in which they outsource IT and EC. Table 6 summarises their responses.

Table 6: Situations where SMEs opt to outsource their IT and EC projects

Sl./No.	Outsourcing situations	Count	Percentage
1.	As and when required	48	39.33
2.	In a crisis situation	16	13.11
3.	When new technology or software is available in the market	15	12.3
4.	When internal staff fail to do the job	10	8.2
5.	After planning for a future growth strategy	10	8.2
6.	When recommended by a friend/consultant	9	7.38
7.	As decided in the board/review meeting	7	5.74
8.	When reviewing past performance	7	5.74
			100

It was obvious that SMEs would resort to outsourcing mainly on an ad hoc basis (reactive) (i.e. "As and when required" and "In a crisis situation") rather from a planned (proactive) initiative (39.33%). Beaumont and Costa (2002) confirmed the same and found that the most common outsourcing arrangement is "as-needed contractual" (one-off tasks). Thus, outsourcing in SMEs is not a strategic phenomenon as yet. This could be attributed to the simple IT and EC infrastructure in SMEs as highlighted by the literature (Blili & Raymond, 1993; Cragg & King, 1993; Soh et al., 1992). This was further endorsed by the second highest situation in Table 6, where SMEs would seek help from outsourcers as a response to a crisis situation in their internal systems and the fact that planning for outsourcing as part of a future growth strategy was not represented highly in the survey outcome (8.2%). Accordingly, SMEs would opt to outsource as a consequence of the emergence of new technology (12.3%) and recommended to them by a friend or a consultant (7.38%). These facts further suggest the non-strategic outsourcing perspective in SMEs in New Zealand.

The Different Outsourcing Perspectives

In complementing the strategic perspective discussed in the typology of outsourcing section above, this section explores the outsourcing approach of SMEs and how they outsourced their IT/EC projects (Table 7).

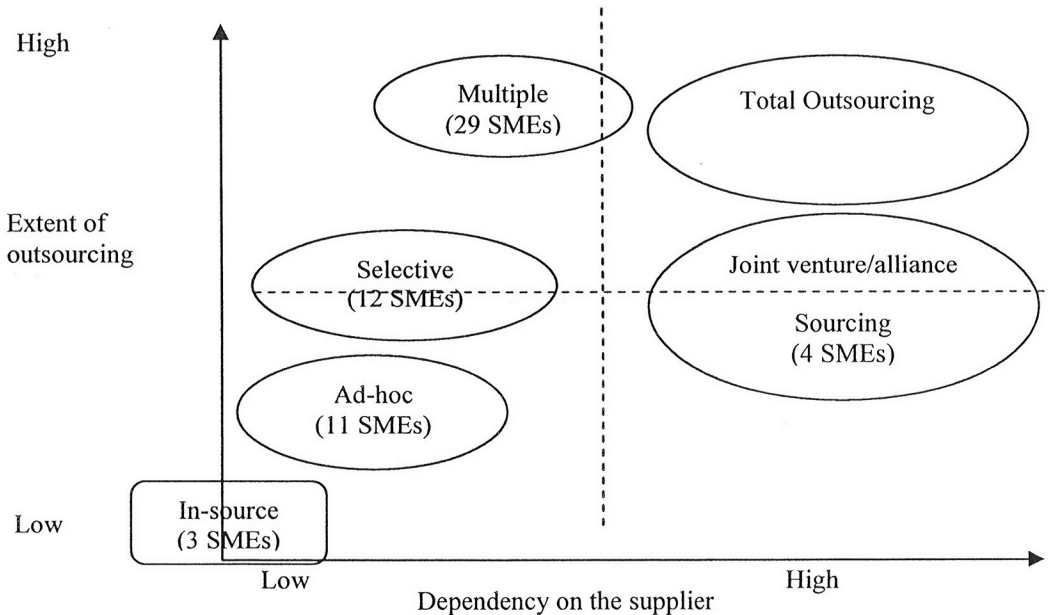
Table 7: Approaches in outsourcing IT and EC projects.

Sl./No.	Outsourcing approaches	Count	Percentage
1.	Multiple outsourcing from various suppliers for different needs.	29	49.15
2.	Outsource from a single supplier for all IT and EC needs through a long-term contract.	12	20.34
3.	Outsource a skill or resource just to marginally supplement the internal resource.	11	18.64
4.	Form a joint venture or a strategic alliance with an IT/EC supplier who has IT capabilities.	4	6.78
5.	Retain a strong internal IT wing and be self-reliant.	3	5.08
			100

To better explain the above results highlighted in Table 7, the number of SMEs belonging to each of the different approaches are shown in Figure 2. It was obvious that SMEs would prefer to diversify their portfolio of suppliers and consultants and hence, retain a blend of suppliers for the different projects – most probably each within its own field of expertise (49.15%) (e.g.,

web sites, accounting systems, EDI, manufacturing information system). This finding substantiates Beaumont and Costa (2002) and Lacity and Willcocks (2000) research in that most organisations opt to pursue the selective strategy as the preferred outsourcing approach. On the other hand, SMEs would hook with a single supplier for a long time for all their IT requirements (20.34%). The preceding might be attributed to homogeneous IT/EC systems being in place and hence, one supplier is able to control the environment easily, e.g., accounting system, hardware and network support could be easily managed by one supplier. This perspective could reflect the simple nature of the IT/EC of SMEs. SMEs would resort to outsource experts to marginally supplement the internal resource (18.64%), followed by forming a strategic alliance with a technology vendor (6.78%), and as expected few SMEs would be able in apposition to fully support their IT/EC systems (5.08%) and retain a strong internal IT wing.

Figure 2: A Typology of IT Outsourcing in SMEs in New Zealand



In addition to the above questions, when the respondents were asked if they would allow the outsourcer to propose altering and modifying their operations and processes in order to maximize the outcomes of the outsourced IT product or solution (BPO), a considerable percentage of the SMEs (28, 59.6%) responded in favour of BPO and only nineteen SMEs (40.4%) responded against the BPO. This finding highlights a cultural perspective amongst the SMEs in New Zealand. When new technology emerges and requires considerable changes in operations and processes in order to maximize the benefits from this technology, high percentage of New Zealand SMEs showed flexibility and willingness to accommodate these changes.

CONCLUSION, LIMITATIONS AND FUTURE RESERACH

The findings from this research clearly demonstrate that the market for IT/EC outsourcing for SMEs is already significant and growing, with more businesses planning for it in near future. It

throws open a huge opportunity to the IT industry to position themselves to tap into this market e.g., experts, help desk services, maintenance, customising software packages. It is important to appreciate that the most important drivers for the SMEs to outsource their IT/EC requirements is access to experts, need to improve the quality of customer service and access to new technology. Cost consideration is neither the main issue for outsourcing nor an obstacle in this process. Not surprisingly, access to experts emerges as the single most important consideration in IT/EC requirements in SMEs. It is highly unlikely that the SMEs would be in a position to retain such IT/EC expertise in-house.

The study also reveals that IT outsourcing by SMEs is mostly in maintenance: PCs (73%), midrange servers (54%), data cabling (55%), Internet related services (55%), and data networks (47%). Similarly, the demand is more for customisation of packages rather than application development. As far as software is concerned, it is mainly in the technology related to providing online presence: Web site development (16%), Web site hosting (12%), Web site maintenance (10%), Web site integration (8%). Operational areas identified for outsourcing are experts (29.6%), help desk service (19.4%), disaster recovery service (14.3%) and also IT planning strategy (12.2%). This indicates a high reliance on outside experts even in mission-critical operational areas of the business. The range of areas identified for outsourcing by SMEs indicates not only their willingness to accept new technologies for better service delivery but also to seek a cyber presence in the market. Most of the problems identified were related to the supplier – identifying the supplier, their inadequate performance, managing different suppliers and ensuring that standards are met. The top two problems are identifying the right vendor and the right product. This points to the lack of the SME's expertise in this area and therefore the need for guidance in outsourcing decision-making.

This research has theoretical implications and significance. This research represents one of the initial attempts to explore IT and EC outsourcing in SMEs. This study reviewed relevant theories pertaining to the strategic outsourcing decision in organisations. What could be suggested from this exploratory research is that it highlighted the appropriateness of the strategic resource theories in identifying some of the drivers for outsourcing in SMEs in New Zealand. This is very important to researchers interested in this area. Further, this research highlighted different determinants of IT/EC outsourcing and other strategic issues surrounding the outsourcing decisions of SMEs. It should be emphasised here that these findings are of particular interest to New Zealand SMEs. SMEs possess unique characteristics which differentiate them from large businesses and hence, future outsourcing research in SMEs could compare its results with this research. Further, each country has its own qualities and specifics (e.g., culture, politics) and this allows for more comparative studies to be implemented in order to compare/contrast such specifics across the different countries. Such implications represent a contribution to the IT outsourcing literature.

As highlighted in this research, the uniqueness of the New Zealand perspective stems from the fact that the economy is distant and isolated from the rest of the world (geographically, time-zone). New Zealand's small population and economy does not represent a strong buying power for a market dominated mostly by very small businesses. The concern here is that the existing IT/EC infrastructure in SMEs in New Zealand is not sophisticated enough and hence, will not progress beyond buying a small network of PCs, which could be supported minimally (as and when required, crisis situation). The use of IT is expected not to be that extensive or critical. The IT literature in SMEs suggested this fact and pointed to the limited use of IT in SMEs. Due to the non-strategic thinking of IT/EC and to the lack of time amongst the SMEs, they would resort to quick and inexpensive fixes for IT/EC resources. Resolving these concerns in

any future research with respect to the current research findings could provide more insights into the depth of the outsourcing phenomenon in SMEs in New Zealand. Investigating this depth could assist in validating some of the justifications made in this research which are based on literature extended from mainstream outsourcing research. For example, large numbers of SMEs were willing to adopt the BPO outsourcing model in this research. However, it was not possible to confirm whether this decision was based on a simple or a sophisticated IT/EC infrastructure. Whether this high response was a perception or based on a real setting, could not be confirmed as well. This is a weakness in survey research as well. Expanding on this area could highlight unique cultural characteristics of the New Zealand SMEs. Expanding on the strategic orientation theories in this regard could assist in identifying key cultural issues pertaining to the outsourcing behaviour of SMEs in New Zealand and elsewhere. It could be suggested here that New Zealand SMEs are not alone in this situation and other SMEs in the world might face similar challenges to the ones highlighted in this research. This provides an opening for other researchers to implement comparative studies.

In discussing the limitations, generalising the results of this research to the full SMEs' community in New Zealand was not possible from the limited sample size. The exploratory focus of this research is stressed here and indeed, could assist other researchers expand on some of the insights generated by this research. Another study with a larger sample could reveal more details in this area. Researchers could then employ sophisticated statistical techniques in order to identify e.g., significant differences between the firms that outsource and the ones that do not outsource and the most significant drivers of outsourcing. Looking for product/industry and organisational specifics could shed some light into outsourcing-specifics in SMEs. Cross-sectional studies offer weak evidence of cause and effect. Survey research is inflexible with regard to discoveries made during data collection. Thus, implementing qualitative studies could provide more interpretations and relevant justifications. Investigating other forms of outsourcing models such as Internet or web-hosting services (ISP, ASP, CSP), their related services (self, shared, dedicated or collocated¹ hosting) and their impact on the strategic performance of SMEs can be the focus of any future research.

Other areas for further research were highlighted in this research. Further, researchers could expand on the adaptation of IT/EC technologies by SMEs, the strategic presence of SMEs in cyberspace for online marketing and the degree of dependence on the vendor in outsourcing decisions would reveal valuable information for SMEs, the IT outsourcing industry and policy makers.

¹ This model is similar to the dedicated one in that the web-server is located at the web-host's site for ongoing support and maintenance but the web-server is owned by the SMEs not the hosting vendor.

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Nabeel A. Al-Qirim is a lecturer and module coordinator for eBusiness in the School of Computer and Information Sciences, Business Faculty, Auckland University of Technology (AUT), Auckland, New Zealand. He has a Bachelor degree in Electrical Engineering, Cert. (Tertiary teaching), PostGradDip InfoSys. (Hons. with distinction), MBA, and PhD (Cand.). His research interests and publications are in IT & eCommerce in small business, SCM, mobile commerce, and Telemedicine. He completed editing one book in the area of eCommerce in SMEs and co-editing another book addressing policy implications with respect to eCommerce, Government, and SMEs. He worked in the IT industry for 12 years as a consultant and in managing total IT solutions with international companies: IBM, Compaq, Data General, Group Bull, and Siemens Nixdorf.