

# KNOWLEDGE ACQUISITION IN SMALL BUSINESSES

## *Capacity Building for the Use of IS*

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**Abstract:** This paper reports a series of research studies that demonstrate how some small businesses have engaged in the task of capacity building to enhance the use of information systems within their business. What we found in each of these situations is reliance by small businesses on the formal and informal networks that they have set up to support their capacity building. A common thread amongst each of these situations is the entrepreneurial nature of the small businesses involved. In all of the cases the business were looking for ways to expand their own markets.

**Key words:** Capacity building, small business, information systems.

## 1 INTRODUCTION

Capacity building goes beyond the notion of using training to build business know-how. From a small business viewpoint it is about the use of informal and formal networks to help overcome the barriers they face in adding to their understanding. For purposes of this paper that understanding is related to how best to build capacity to know how to effectively employ their information systems. This paper examines, through a series of research studies conducted by the authors, how some small businesses have tackled the task of capacity building to enhance the use of IT.

## 1.1 Definitions

**Small Business** - When studying the use of Information Systems (IS) in small business, the definitions used to describe 'small business' varies across international boundaries. This range can make it extremely difficult for researchers to 'match up' different small business studies. A 2003 study by worldwide members of the Information Resources Management Association Special Research Cluster on Small Business and Information Technology (Burgess, 2003) found that definitions of 'small business' ranged from less than 20, 50 and 100 employees (with some definitions including requirements for annual turnover and asset levels). In this study we will treat any organisation with 20 employees or less as a small business.

**Information Systems** – comprise hardware, software, people, procedures and data, integrated with the objective of collecting, storing, processing, transmitting and displaying information (Tatnall et al, 2002). Such a system does not require use of a computer.

**Capacity Building** – There are many definitions of capacity building. The Australian Government (2004) suggests that it is about increasing the abilities and resources of individuals, organisations and communities to manage change. Capacity building can occur at an organisational, local, regional and even national level. The important thing is that it is about building knowledge and understanding through avenues such as training and social networks: in this case for the use of IS within small businesses.

## 2 BACKGROUND

In 1994, a study of 358 small business in New Zealand (Igbaria et al, 1997) suggested that many small businesses cannot afford to employ specialised IS staff. The authors concluded that potential system users should be made aware of its functionality, and that this can occur through internal training, management support and external support. Although the computing environment has altered since the study the premises still appear to be applicable today. In fact, the literature contains what is now a fairly accepted list of 'barriers' to the successful implementation of IS in small businesses. These barriers typically include (Management Services, 1997; Igbaria et al, 1997; Pollard and Hayne, 1998; McDonagh and Prothero, 2000):

- The cost of IS.
- Lack of time to devote to the implementation and maintenance of IS.
- A lack of IS knowledge combined with difficulty in finding useful, impartial advice.
- Lack of use of external consultants and vendors.

- Short-range management perspectives.
- A lack of understanding of the benefits that IS can provide, and how to measure those benefits.
- A lack of formal planning or control procedures.

These barriers form a dangerous combination of factors that can affect the ability of a small business to add to its knowledge base of how to use information systems effectively. A lack of formal IS training usually leads to a lack of formal IS knowledge. Managers are reluctant to send employees on training courses as they either cost too much or will take employees away from their 'real' work. There is a mistrust of external consultants, either because they charge too much or because it is felt that they do not fully understand the business. There is also a lack of understanding within the business of the strategic benefits that IS can provide (Burgess, 2002).

One technique that small businesses often adopt to overcome these barriers to capacity building is to become part of informal or formal support networks. These can support relationships and allow swapping of ideas or useful contacts (Fink, 2002) or can just involve use of family members or friends for advice (Burgess, 2002). The latter, of course, can be an approach fraught with danger; depending on credentials of the person offering advice.

### **3 SMALL BUSINESS STUDIES**

The next section describes the nature of capacity building adopted by different types of small businesses in a number of recent studies by the authors. For each study a short description of the research method will be provided, followed by a description of how the study participants faced the challenge of capacity building for their IS.

#### **3.1 Australian Bed and Breakfasts (2003)**

This study examined 10 instances of Website adoption by small Bed and Breakfast accommodation providers operating in the Bendigo region: a rural area in Victoria, Australia (Burgess, Sellitto and Wenn, forthcoming). Bendigo was selected because early projects on awareness/adoption of electronic commerce technologies were undertaken in this locality – research that actively involved some of the region's businesses. The subsequent formation of the E-Commerce Association of Central Victoria (EComCV) after these early formative studies has been instrumental in alerting local businesses to lessons learned and impacts of adopting Internet technologies (EcomCV, 2004). Hence, it was felt that this group of small accommodation providers, having been exposed to a proactive environment promoted by and

associated with EComCV, would most likely be relatively early adopters of a business Website. Moreover, it was assumed that they would be advanced along the technology learning curve when it came to using the Internet and implementing their Website. From a Rogers (1995) diffusion of innovation perspective this group of early adopters would have utilised the Internet for competitive advantage and provided examples and leadership for others to look to. As such we expected that these small businesses would be a little more 'IT savvy' than comparative ones elsewhere.

In all cases the individual business owners were the initiators behind establishing their website – the main motivation for establishing the Site was to provide relevant information content for clients. Two of the businesses had adopted a website in the preceding twelve months, six businesses within one to two years and two businesses had set up a website between three to five years ago. All businesses were using email and a website as part of their business communication and promotions strategy.

From a capacity building viewpoint we were interested in determining how businesses built their knowledge of how to establish their websites. All the businesses relied on some type of advice or information when setting up their websites. This came from consultants (70% - mainly Bendigo Web Central, see below), friends (40%), magazines and newspapers (20%), relatives (10%) and business associates (10%). This is consistent with the idea of using informal networks as a support base for building capacity. Consultants were mainly used for setup and maintenance of websites and it was observed by a number of respondents that it was important that the *business retain control of content*. There were quite a few instances where the website took longer to set up than the business anticipated and only 60% of the providers actually looked into the cost of the website before they made the decision to implement it! Comments in relation to setup included:

- The cost blew out beyond expectation. We had no idea how demanding it would be. We went for the middle quote.
- We didn't ask about cost. We only got a quote for pictures and text, not the development.
- We had problems with unwelcome marketing approaches.
- We just wore the cost because it had to be done. We negotiated and took best price although picture transfer was messy.
- We already had photos so saved on cost.

Some of these comments indicated that the businesses felt that they had made mistakes when trying to determine the cost of the websites and the process of setting them up, even though we had anticipated that they may have 'advanced' knowledge compared to other small businesses. There were indications that they would do things differently if they had their time over again, although for most it was considered a good learning experience.

### 3.2 Australian regional wineries (2003-2004)

This study investigated the regional relationship between wineries that came together to implement a small winery based portal website to collectively promote their businesses and foster wine tourism. The site was identified from a broader study (Sellitto and Martin 2001; Sellitto 2002; Martin and Sellitto 2003; Martin and Sellitto 2003a) that examined Internet adoption by Australian wineries. This site was identified as an important conduit that allowed a group of regionally based Australian wineries to collectively use Internet technology to facilitate information dissemination.

The website was aimed at enhancing wine sales, marketing wineries as tourism entities and fostering an environment for dissemination of electronic information. Rheingold (1993) describes virtual, or Web, communities as they are sometimes called. Today this concept takes various forms including newsgroups, chatrooms and Web sites on which they are accessed (Dyson 1997; Schneider and Perry 2001). Web communities, as well as fostering social interaction, are able to assist companies, customers and suppliers to transact, collaborate and interact in ways that benefit all (Schneider 2002). Thus, the wine portal can be considered a representation of a virtual or Web community with various functional features. The group had obviously been in communication beforehand, and with help from one of their members being a 'champion' of the collaboration they started the portal.

It has been suggested that Internet technologies can be used by regional groups to create a global identity by establishing themselves as virtual business entities that can involve sharing of resources and services (Fitzsimons and Styles 2001). As a result of the wineries using the Internet to form a virtual community as well as being able to achieve consumer sales, they have also enhanced communication between members, allowing a type of *corporate culture* to develop. Thus the implicit success of the site appears to be due to preparedness of participants to collaborate and cooperate through both formal and informal networks – which is represented by a cohesive and integrated presence on the site. The success of the site is even more significant when one considers that members are usually competitors – each selling their own types of wine products.

In this instance, a major part of capacity building for each business has been centred on online collaboration. In fact this has even enhanced informal networks that exist between businesses. It has been the basis for knowledge sharing, not only in relation to the website, but to marketing strategies associated with regional tourism and engaging with other businesses.

### **3.3 Small Import/Export businesses (2002)**

A study of successful individual small and micro firms located in six Asia Pacific Economic Co-operation (APEC) member economies was commissioned in early 2002 by the Asia Pacific Economic Cooperation to provide an overview of the contribution of small and medium enterprises (SMEs) to trade in the APEC region (Breen et al, 2004). The study 'Small Business and Trade in APEC' was tendered for and conducted by the Small Business Research Unit at Victoria University and was coordinated through the Australia Department of Foreign Affairs and Trade (DFAT)<sup>i</sup>. The purpose was to promote discussion and understanding of barriers, enablers and needs of SMEs involved in intra-regional trade and investment. This was particularly in relation to technological, financial and regulatory factors. The study involved in-depth interviews with 6 businesses – 3 micro businesses (from Australia, USA and Mexico) and 3 small businesses (from Philippines, Japan and Malaysia). The number of cases was determined by APEC.

As a general rule the smaller a business in terms of number of staff then the less likely it will have access to a broad range of skills and expertise. Frequently operators have to provide the range of skills as best they can or access the skills and expertise from a range of sources, at minimum cost. Family members can often be one source of that low-cost expertise, while in some instances governments can provide specific support. The participants in these businesses, which were all viewed as being 'successful' by nature of their longevity, took advantage of a number of family members and friends for their IS advice. Others did look to other areas, such as government for support. Interestingly, each of the business owners indicated that they would benefit from IS related training, recognising a lack of such expertise within the business. This was the case even with two businesses that felt they had IS skilled staff – they both indicated that if the 'expert' left or fell sick there would be problems as there was no-one with 'backup' skills. Thus – the capacity was there, but was not spread widely enough through the business. One important difference that came out of this study was the entrepreneurial nature of the owners. This seemed to be linked with a real recognition of a need to build capacity within their businesses, (and not just in the IS field).

## **4 DISCUSSION**

What we find in each of these (quite distinct) situations is reliance by small businesses on formal and informal networks that they have set up to support their capacity building. In the case of the bed and breakfasts much of their IS support came from consultants and friends. In the winery case they

already had an informal network which was further strengthened by the online collaborative venture. The APEC small businesses all realized the importance of training and were looking to family members and friends and government for support. The one common thread amongst each of these situations is the entrepreneurial nature of the small businesses involved. In each case the businesses were looking for ways to expand their own markets. It is interesting that the only group that really relied on formal support for capacity were the Bed and Breakfasts. Remember that we had commented that these were in an area that had been supported by EComCV.

## 5 CONCLUSION

The task of capacity building in small business is not an easy one. This paper has shown three research studies into the use of IS by small businesses and discussed the various ways in which they approached their capacity building. Although each of the situations involved small businesses that seemed to be entrepreneurial in nature and keen to grow, there was still quite a healthy reliance on the informal networks that had been a traditional source of knowledge (but perhaps not skilled in the use of IS) as the major source of advice for the use of IS within their businesses.

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<sup>i</sup> The final report of the study, **Small Business and Trade in APEC**, is available from the Australian Department of Foreign Affairs and trade ([www.dfat.gov.au](http://www.dfat.gov.au)).