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Janice Burn
Edith Cowan University

Carlo Zanaboni
Edith Cowan University

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Regional Electronic Markets: A Tale of 2Cities.com

Janice M Burn and Carlo Zanaboni

We-B Centre, School of MIS, Edith Cowan University, Perth, WA.

Abstract

This paper reviews the concept of electronic marketplaces and, in particular, their relevance for SMEs. A specific example of a Regional Electronic Marketplace (REM) using a Community Web model is examined within this context. The authors review the underlying philosophy for the project and the planning which preceded implementation. A review of the case highlights the issues which are critical for successful implementation and provides a framework to guide future REM developments. Finally, the case is analysed within an e-community context and recommendations made for future portal developments.

Introduction

International reports show an increasing uptake of online activity in the global community but there is no evidence to link this with real added value or improved international business, particularly within the small to medium enterprise (SME) sector. Research indicates that SMEs are still confused by the myriad opportunities presented by different e-markets, the risks inherent in going online and the need for different business models with strategic national and international alliances to exploit the global marketplace.

SMEs represent a vast sector of the global economy. In Australia they account for 95% of companies and are the largest employer of labour in both urban and regional Australia [www.noie.gov.au]. Their combined turnover contributes substantially to the economic vitality and dynamism of the Australian economy. This is not unique to Australia but is mirrored in most economies around the world. As such there has been considerable interest in the take-up of e-business by SMEs allowing them to expand into a global marketplace. Internet-based electronic business is projected to rise from the current estimated level of US\$2 trillion in world-wide revenue to between US\$ 5-9 trillion by 2005 (UNCTAD, 2002). Attention is being focused on SMEs as additional sources of national and global competitiveness, market innovation and job creation. Recent research indicates however that Australian SMEs are hesitant in their approach to e-business (SBI, 2001; DCITA, 2000) and lag behind many other developed economies in exploiting the Internet. An OECD report "Enhancing the Competitiveness of SMEs in the Global Economy: Strategies and Policies" (2000) found that the penetration rate of the Internet for e-business in the Australian SME sector was only 25% compared with figures of over 60% in Europe for example. The Pacific Access Survey (2001) shows a slight increase with 31% of small businesses with a home page or dedicated Internet site and 26% using the web for procurement out of a sample of 1800 Australian SMEs.

In Australia, as in other developed countries, research studies have focused on the adoption and use of the Internet as a medium for doing business by SMEs (Poon & Swatman, 1997 ; Swatman, 2000; OECD, 1998; Bode and Burn, 2001). These studies point to some of the common characteristics of SMEs with respect to adoption levels, challenges, and general benefits from online infrastructures. While there appears to be much enthusiasm about electronic business, current studies show that it is the minority of SMEs who are reaping

significant benefits from the Internet (Burn and Tetteh, 2001; Bode and Burn, 2001a). The majority of SMEs use the Internet only as a basic communications facility (Burn and Spadacinni, 1999). The reasons for the relatively low level of use include: the lack of technological expertise, uncertainty about benefits, low commitment of owner/manger, poor understanding of the dynamics of the electronic marketplace and their inability to devise strategies to leverage online infrastructure for profit (Standing 2001). One of the solutions which is suggested for more effective e-market penetration is the development of electronic markets specifically for SMEs. This paper reports on one such development and evaluates the success.

e-Marketplaces

The emergence of electronic marketplaces creating trading hubs where suppliers are matched with buyers for equipment, products and services have the potential to play a major role in realising the potential of e-commerce for SMEs. Indeed, if SMEs are to remain competitive they need to adopt the changes that are occurring in the area of electronic commerce (Standing & Vasudavan, 1999; Bode and Burn, 2001b).

Electronic marketplace is defined as an 'inter-organisational information system that allows the participating buyers and sellers to exchange information about prices and product offerings' (Bakos, 1991, p 296). The profusion of these electronic marketplaces, the speed of transition to the electronic environment, the variety of business models and the varying requirements of different industries and service sectors cloud an already confused marketplace picture. Despite this, there is immense pressure on companies to move quickly to the electronic marketplace, often without a full understanding of what benefits they can accrue from participation in them and the issues that should be considered in the selection process (Banham, 2000). It is clear that this type of e-trading is threatening the more fixed forms of virtual supply chains where an organisation is integrated electronically with its suppliers down the supply chain (Clark & Lee, 1999). Please use only Times New Roman font (or Arial font in figures) in your document.

Previous studies have identified the different levels of service that are offered by e-marketplaces, developing from trading hubs that support the identification of potential trading partners to more complex models offering selection and, increasingly, execution services (Choudhury, Hartzel and Konsynski, 1998). The models that have developed offer the following methods of trading:

- Catalogues - either individual vendor or multi-vendor
- Auctions - buyer or seller driven
- Exchange - comparable to trading exchanges with a bid and ask system
- Storefronts - participants maintain an open Webpage within the marketplace
- Negotiation - the marketplace acts as intermediary for transactions such as RFQs

The reported benefits to companies that are trading through e-marketplaces are compelling and suggest that cost savings being experienced by companies are considerable. Lucking-Reiley and Spulber (2000) estimate that online transactions could 'reduce costs by a factor of five or ten or more.' Typical cost saving efficiencies are lower procurement and search costs, reduced administration costs and development time, integrated global suppliers and a strengthening of relationships with commercial partners, cuts in inventory holdings and up-to-the-minute order tracking. Non-financial benefits include access to better quality goods

and services, value adding information obtained from the e-marketplace, greater choice in the buying/selling process and greater convenience for participants (Standing 2001). The scope of the individual marketplace will determine how many of the benefits can be experienced by the participants of a particular marketplace. One of the major issues for SMEs is whether to select a “horizontal” or “vertical” portal as the market model. Horizontal markets offer an open shopping mall experience with a wide variety of goods, whereas vertical portals cluster together similar industries and will attract product specific shoppers. An SME has to make the decision as to whether they gain competitive advantage from a unique product in an open marketplace or to ally with competitors to offer a wider range of products in a discrete marketplace. The element of choice in selecting an e-marketplace is often constrained by traditional partners or the positioning of major industry players.

Our ongoing research indicates that even where SMEs have some awareness and use of e-commerce there still remain problems (Tetteh and Burn, 2001, Bode and Burn, 2001a). For example, the expectations of a positive impact from the Web are unlikely to be fully realised as only approximately one third of Web enabled SMEs have any form of a Web strategy. SME websites are primarily information sites for customers and only 20% are capable of taking an order online (Korchak & Rodman, 2001). Less than a third of SMEs use the Web for procurement and there has been low penetration of e-marketplaces. Although e-marketplaces are being increasingly used by large organisations, which have been quick to realise their potential, SMEs have been slow to take up their adoption as a mechanism for buying and selling.

Many of the problems relating to the failure of SMEs to address the importance of electronic marketplaces lies in a lack of understanding of the advantages and how they can benefit from them. SMEs understanding of the global marketplace is not good and they have little understanding of the nature of the Internet and how it interacts with other methods of trading. Smaller companies do not see themselves as part of a large supply chain and they underestimate how the Web can benefit them by sharing information, buying from suppliers with no paper system, electronic fulfilment, tracking, and efficiencies in cost and time (Korchak & Rodman, 2001). If they do not understand their ability to function within the larger supply chain they will lose out to large firms in the electronic markets. The developing world markets, brought about by e-commerce and the increased ability to trade globally facilitated by electronic markets, adds to pressure on the SMEs as there are more firms with the ability to trade in each region (Said, 2000).

Increasing globalisation and a climate of more outsourcing has both increased the pressures on SMEs to perform, but also extended the opportunities for them to do so. SMEs have little control over the market so must harness the pressure and respond quickly (McAdam, 2000) utilizing the advantages of electronic markets. The main influences on e-commerce adoption are size, leadership/culture, IT experience and access to skills (Jones et al, 2000). SMEs require assistance to acquire the necessary skills and knowledge to make the move to the electronic environment and evidence suggests that this help needs to come from neutral sources such as government or business associations (Burn and Tetteh, 2001).

One such example of Government supported marketplace development can be found in the 2Cities.com regional electronic market developed for the regions of Joondalup and Wanneroo in Western Australia. The 2Cities project offers SMEs an opportunity to select their preferred business model and to develop their strategy for online business in accordance with their preferred business philosophy. This unique concept combines both horizontal and vertical

marketplaces and provides the underlying business infrastructure for SMEs to take advantage of electronic trading.

Planning for the REM

As early as 1999, a small group of interested parties came together to discuss whether the Internet could be used to facilitate a community portal for a regional community area north of Perth in Western Australia. The region was Joondalup, a rapidly developing suburban 'new town' area and the players were the local council, the Business Enterprise Centre and the local Business Association. These key players realised that funding support would be needed but also that they could substantially increase their bargaining power by extending the concept to their neighbouring region – Wanneroo (only recently established as a separate council splitting out of the Joondalup council region). This enhanced stakeholders group included both councils and business associations and also the University with the largest campus in the area, Edith Cowan University and two local colleges in the same education precinct. The stakeholders were approximately 220,000 residents, 7000 small businesses and three Tertiary Education Facilities. This group together sought seed funding of \$20,000 from State Government and in 2000 developed a demonstration site to sell the concept.

A survey of 1000 of these businesses conducted in association with Edith Cowan University comprising 600 businesses in Joondalup and 400 businesses in Wanneroo indicated that current e-commerce usage was fairly high as shown in Table 1.

	Joondalup	Wanneroo	Australian Average ¹	
			Small	Medium
	%	%	%	%
Internet Connection	58	60	60	89
Web Page	44	40	25	56
Purchase on Line	31	27	17	28
Sell on Line	31	N/A		
Business needs Web Page	23	20		

Table 1. e-Commerce Usage in 2Cities area.

Source DICTA Taking the Plunge 2000

This indicated that businesses in the region were at least as well advanced as average Australian businesses, and possibly more advanced in the areas of web page and on-line transactions. The REM project was given the go-ahead by NMCOA in conjunction with business for the benefit of businesses in the region and to develop the Northern Suburbs as an attractive location in which new business can develop and grow. The initiative intended to train businesses in the skills required to buy and sell on-line and also allow easy access to the products offered by these businesses to the major consumers in the region.

Specifications were developed and budgets proposed and when the extent of funding and commitment required was fully understood the North Metro Community On-Line Association (NMCOA) was formed in March 2001. Additional funding was sought from the Department of Employment, Workplace Relations and Small Business (DEWRSB) under the Regional

Assistance program (RAP) and a grant of \$90,660 received. At this time, the three main players, the two councils and the university were asked to make a substantial investment in the concept and provided funding of \$108,000. NMCOA would act as an independent body to manage finances and control the development of the REM.

Discussions by NMCOA's Business Development Manager (PM-A) with a wide range of businesses indicated the clear expectation that the project would assist them to accelerate entry to the on-line market place, provide them with a wider market in the regional context and allow them to use these technologies to become globally competitive.

Other factors that the businesses would be looking for in the REM included: -

- High profile.
- Secure business transactions.
- Information feedback on visits to the site.
- Support to allow them to effectively enhance web sites with reasonable cost effectiveness.
- An independent source of technical expertise and advice they could trust.

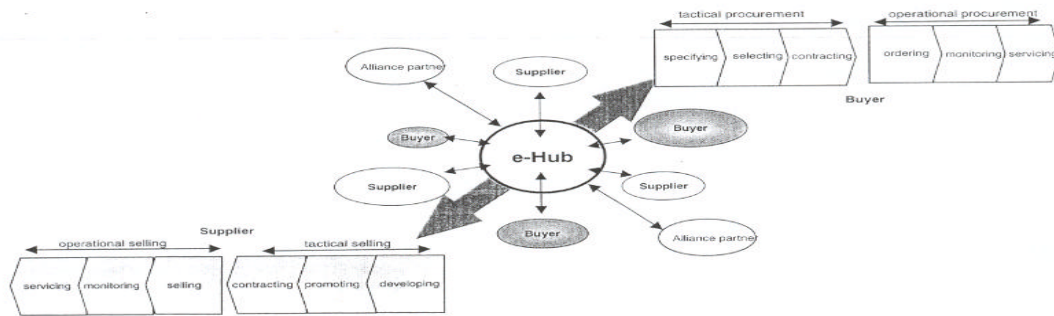
The 2Cities Gateway Project develops, through a "Community Web" model, an official portal to be a single point of entry for individuals, communities, governments (Federal, State and Local), and business to access and interact within the Wanneroo/Joondalup region. The gateway also provides the basis for regional online information exchange activities and encourages, supports and develops awareness of the benefits and use of the Internet technology. 2Cities is about re-establishing a village community in a networked world.

'Our goal is "e-inclusion" - by having Residents, Community Groups and Businesses interacting online. Importantly, it's not just about technology - rather we're developing a tool for all groups within our community to interact with each other. It will also build our region as a "Smart Region" - to put us at the forefront of the information economy and reap the benefits of cost saving from effective use of the Internet'.

As a regional access point there is a broad focus, which provides a single 'official' point of entry for a range of community, business and other services and products of the region. Additionally, educational services, business products and services, institutions and services, business to business transactions, community groups needs, associations, and marketing of the region for social, economic and other development are provided.

Project Development

The objective of the project was to develop an e-marketplace within the community (Figure 1). This would be known as the Regional Electronic Marketplace (REM).



The e-Marketplace is meant to permit Joondalup and Wanneroo region based businesses to sell, but theoretically anyone worldwide to buy through the e-Marketplace once registered. This policy is intended to give to business settled inside this region an infrastructure that can be a competitive advantage, and could also encourage relocation of business. In addition, 2Cities is meant to develop the communities of Joondalup and Wanneroo and to offer a marketing service for promoting the area, through directories like: environment, sport, tourism and education. Finally there's the plan to try to foster local job recruitment, as another way to improve the attractiveness of the region.

The 2Cities supports five different types of e-business relations:

- **Business to Government (B2G):** supporting all the procurement activities (tenders and normal purchases) of government structure (Administration, Education and Health) both inside and outside the region.
- **Government to Consumer (B2C):** letting people both inside and outside the region obtain information from the different government structures inside the region.
- **Business to Business (B2B):** letting business both inside and outside the region once registered to buy from registered businesses inside the region.
- **Business to Consumer (B2C):** 2Cities will be used by consumers both inside and outside the region basically to search for a business inside the region, but the system also supports the full range of B2C eCommerce.
- **Consumer to Consumer (groups) (C2C):** developing an active online community for social groups and social services

Organisations seeking to purchase goods or services can use the model to send RFQs, lodge orders and segregate suppliers by locality. Sellers can be notified of RFQs by e-mail, fax or SMS and orders can be placed in a similar manner. In order to sustain the market large corporate buyers have to commit to the market and support agreed from the cities of Joondalup and Wanneroo, Mindarie Regional Council and the university. This will also supply buyers with easy access to a large range of suppliers and choice of goods, and increase their ability to obtain competitive pricing. In addition it is anticipated that suppliers operating within the marketplace will use the process to purchase their own requirements, and in so doing increase the level of trade within the region. Expansion of the system to allow the

regions domestic consumers to purchase on-line has the potential to result in rapid growth in transaction levels. Once familiar with e-trading and having benefited from increased regional sales, business will be in a position to expand outside the region, to state, interstate and overseas markets.

NMCOA and the Business Associations will be well placed to assist companies in this type of expansion and where required arrange introductions to local companies already operating in these marketplaces. Such a mentoring process can lead to efficient entry into new markets. Training is an additional requirement and the Small Business Development Corporation provided 92,000A\$ to recruit a training officer for the REM.

The conservative estimate used in the business model is that some 1,200 companies will be operating within the e-marketplace within five years. Indications from the Business Associations and seminars held by NMCOA are that uptake will be significantly higher than allowed for in the business model. An example of this is that the Joondalup Business Association has recently approached NMCOA to incorporate 1,100 companies onto the business listing section of the site.

Problems in the Development

Table 2 shows the development timetable, some of the key players and the major milestones impacting on implementation of the portal

.Year	Stage	Project Manager	Situation	Income
1999	Joondalup Stakeholders Group	PM-A	Small group gathering	N/A
2000	Waneroo/Joondalup Regional Online Steering Committee +ECU	PM-A	Creating the basic group of stakeholders, the "demonstration site" is put online by Joondalup Business Association	20.000 A\$ from the State Government
March 2001	NMCOA	PM-A	The NMCOA is created to be a separate financial and political body from stakeholders that can receive and manage funds	<ul style="list-style-type: none"> ▪ 90,660 A\$ from Federal Government (RAP) • 108.000 A\$ from the 2 cities and ECU
Feb 2002	IBC win contract	PM-A becomes PT consultant	Development of Portal	<ul style="list-style-type: none"> • 70.000 A\$ for contract
May 2002		PM-B	PM-A resigns PM-B appointed TM appointed	<ul style="list-style-type: none"> • 92,000 A\$ SBDC grant for TM
August 2002	Portal in test phase	PM-C	PM-B appointment withdrawn PM-C appointed TM resigns	
Dec 2002	Portal completed (6 months overdue)	PM-C	Soft launch of 2Cities.com	<ul style="list-style-type: none"> • A\$190 each

	60 users			
Feb 2003	Intended launch	PM-C	Delayed – new business plan developed	• \$50,000 additional revenue sought from 2 councils
April	Official Launch	PM-C	Delayed to June	
May	New business plan proposed		Launch delayed indefinitely	Public offering considered as business model

The problems can be summarised as follows:

- poor business plan
- low capitalisation
- project overrun
- poor project management – 3 separate project managers
- mis-timing of training requirements
- no marketing and training budgets

The initial business plan was almost wholly dependent on grant income which did not materialise and with unrealistic costs for REM users (\$500 per annum as compared to a final fee of \$199). The founding members did not realise the extent to which additional funding would be required nor the full extent of technical expertise which would be required to implement the portal. Project managers came and went (three over one year) and a training manager was appointed over six months before the implementation of the portal and resigned prior to the test period. The 2Cities budget had no provision for marketing or training costs and while the revised business plan now includes provision for marketing additional funds (through government grants or through voluntary contributions from the partners) must be obtained.

Issues and Lessons for Future

The current status of 2Cities.com is that it commenced operation in December 2002 although the 'official' launch will not take place until late 2003. To-date 120 businesses (only 64 paid customers) and 39 community groups are registered in the portal.

Williams and Cothrel (2000) identify three activities which are central to the success of every online community: member development, asset management and community relations and these are examined in turn with respect to problems which have arisen within 2Cities.com.

Member Development

Communities need critical mass to remain active. The 2Cities business model adopted is one which is totally dependent on a critical mass of large corporate buyers. The portal, however, does not necessarily offer any advantages to these groups since the sellers, typically SMEs are unlikely to be able to offer discounted prices for large orders. Promotion is essential to build the community but, in fact, 2Cities.com has no marketing budget.

Asset Management

Assets in an online community range from content; to alliances with other groups; to the knowledge and experience of experts, to the community infrastructure. The community coordinator needs to capture the information members need but 2Cities has two customer communities as a focus, the REM community and the social community. These two groups have very different needs from an online community, require different support and need different training. Content generation is required for each of the five types of e-commerce supported in the portal, each involving very different players but all required to adopt some basic standards. An on-going Project Manager is essential.

Community Relations

Interaction with other people is essential for successful creation of an active online community but requires online moderation and facilitation. The desired 'village community' of 2Cities.com will require constant moderation yet has to stimulate member generated content which will be seen to be of value to a very diverse community. There is an additional political dimension here since the two communities are in fact, quite competitive and do not normally view themselves as a single group.

Ownership

A further factor which has been identified in this review of 2Cities.com revolves around ownership. The portal is 'owned' by a consortium, all with different motives, varying degrees of investment and often conflicting aspirations for the outcomes. Inevitably other factors such as politics intrude on the funding and operation of the portal. A recent proposal which may well be a longer term solution is to sell ownership to the stakeholders.

Conclusions.

This paper describes an unusual approach to developing an online community combining two very different customer markets. While there is a real need to develop e-markets to allow SMEs to capitalise on online trading the marketplace must acquire a critical mass of players and must also offer a real alternative to large corporate buyers. 2Cities.com is an extremely ambitious project which is still in its infancy. The revised business plan includes provision for three new REM participants captured every day over the next year. Time will prove whether this is a realistic proposition.

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