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**An Integrated Information Strategy for
eCommerce for Export: Enhancing Networking
in an International Business Context**

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Abstract

Companies using electronic commerce to facilitate their export activities (EC4X) need information and support at all stages of their export development and eCommerce adoption. This need is especially pressing for small and medium enterprises (SMEs). This paper reports the findings of a study of EC4X information and support needs among a sample of Australian companies. Evidence from SMEs, business associations and the Victorian state government suggests that governments need to develop a strategy for cost-effective on-line EC4X material that incorporates both generic and specific information. On-line provision of information is an effective way to meet the needs of SMEs and is increasingly the preferred channel for government bodies seeking to promote EC4X capability. However, personal contacts and networks are still an essential part of international

business. Thus, an effective government strategy will support the business networking and personal contacts so important to help SMEs develop both eCommerce and export activities.

1. Introduction

Both national and state governments in Australia have attached a high priority to developing an on-line strategy to disseminate information to encourage more businesses to participate in international trade and enable firms already trading across borders to improve their performance. Promotion of eCommerce for export (EC4X) can encourage the use of advanced on-line business techniques to lift Australia's trade performance. The dual goal of increasing export trade and eCommerce use raises issues about how this can best be achieved and what role governments ought to play in this development. Earlier research (Castleman and Cavill, 2001) examined the experiences of companies which were successful in EC4X and identified their needs in a number of areas. This research looks more specifically at the information strategy and, in particular, the state government strategy, to help SMEs move into EC4X. The question we address here is: 'How can governments provide useful and effective EC4X information efficiently and what balance should their information strategy strike between on-line and personalised advice and support?'

Australia is well positioned to benefit from the emerging information economy (NOIE, 2001). On a number of measures Australia is among the leading nations in terms of key measures of Internet infrastructure, penetration and activity. A national survey of small businesses in 2000 (Pacific Access, 2001) reported that Australia had reached

- record levels (75%) of small businesses and (95%) of medium businesses with PCs connected to the Internet. Of these, record levels (76%) were regularly using the Internet to look for information product or services.
- record levels (82%) of small businesses connected to the internet using email;
- record levels (31%) of small businesses reporting they had a home page; with another 18% expecting to establish a home page of the next 12 months;

However in comparison with other larger Australian businesses and SMEs in other countries, Australian small businesses have been relatively slow in adopting eCommerce. Of those using the Internet for business communications, only a fraction do any form of eCommerce like taking orders and receiving payments. Almost 50% of small businesses did not see eCommerce as having any particular relevance to their business at that time. Many small businesses actively resist engaging in eCommerce, specifically buying and selling over the Internet and have

a limited appreciation of the benefits of moving on-line and the costs and process of doing so (NOIE, 2001).

To Australian governments, which have been pursuing a range of strategies directed at encouraging small business to access the Internet and increase international trade activity, such findings are of continuing concern.

2. The Role of Government

Individuals and firms moving into a new and unfamiliar field of endeavour, be it international trade or eCommerce, face one overriding question “*What do I not know that I need to know*”. Many will turn initially to a government agency for an answer to this question. This is particularly true of small to medium size enterprises (SMEs) that may lack the confidence and financial resources to engage private consultants at the initial stages of the planning process. The economic importance of a strong, viable business sector, especially a strong and viable SME sector with its potential for employment and export generation, makes it imperative that government agencies answer the question as fully and appropriately as possible.

How to provide an answer poses significant problems for government, given the disparate nature of those who ask it. Every enterprise is different in terms of size, resources, management expertise and level of awareness. The information required to answer each specific inquiry cannot be too generic if it is to be relevant. It is essential that the answer be structured to meet the needs of the inquirer. One-on-one counselling of enterprises would seem to be the ideal approach but it is too costly for government agencies to employ numerous personnel with a high level of expertise.

2.1 The Victorian Government’s On-line Export Information

The Victorian state government in Australia is a good case in point. Prior to its move on-line it dispensed export information primarily by the provision of printed material. This made revision and update of the material both difficult and expensive. In addition, the available information was not “structured” to facilitate its effective utilisation by inquirers who did not know exactly what information they were seeking.

The Government believed their problem of providing cost effective export information to its target audience could be partially solved by using the Internet. By constructing a web site to enable inquirers to select from a comprehensive checklist of issues, those which are relevant to their own specific needs and level of awareness could be readily accessed.

The *VicExport* website (<http://www.export.vic.gov.au>) provides access to a repository of information on all aspects of export. Its purpose is to:

- increase export awareness in the general community
- encourage firms who have export potential to trade internationally
- assist existing exporters to improve their export performance
- avoid ill advised, under resourced and premature ventures into international trade.

The site will add a section on eCommerce during 2002 to help exporters develop EC4X.

The information it contains is structured to provide a logical progression through the various stages of export development from initial consideration of export potential to the finalisation of contracts and export expansion. *VicExport* also avoids duplication by providing contextual links to the web sites of other agencies able to assist in export development.

The site is publicly available but is primarily designed to SMEs with little or no exposure to international markets. It is particularly valuable to enterprises in regional and rural areas where access to this type of information is currently limited.

The site uses the interactivity of the Internet to allow the inquirer independently to develop a preliminary export strategy specific to their particular business either on or offline. The site is estimated to have saved over 1600 hours of face to face counselling by departmental staff since its launch in 2000. Its positive impact on the Victorian economy cannot at this stage be estimated, but a marked increase in the number of small to medium size enterprises showing interest in taking products and services into international markets is already noted. This is also evident from the increased number of direct contacts from users of the site seeking further advice on export and referral to export service providers.

Conservative estimates show saving to government from the development of the site to be in the order of 60% increase in time saved in export counselling; 20% increase in service levels and 10% decrease in operating costs mainly associated with reduced costs of printing export material. Overall costs have been contained to existing levels despite increased workflows and higher levels of customer service. The site also provides an easy reference for departmental staff who may have little or no personal experience of export.

It has to be acknowledged that no matter how comprehensive the information provided by *VicExport* and no matter how innovative the means of delivery, most SMEs will ultimately require specific and ongoing support in the form of individual counselling and advice. The information *Vic Export* provides must be viewed as a starting point on the road to eCommerce implementation and the successful move into international markets.

To work effectively, sites such as *VicExport* must provide information that matches the needs of exporters and potential exporters. To do this, they must know

- the information needs of SMEs involved with EC4X
- what sources are available to provide that information accurately and efficiently
- the appropriate mix of on-line and individual assistance for EC4X and how this can be structured into the government strategy.

3. Investigation of SMEs' EC4X Information Needs

In November 2001 the Department of State and Regional Development¹ Victoria engaged a research team to investigate the information and support needs of SMEs which were using EC4X and to advise on the EC4X content for the *VicExport* website.

The project entailed detailed interviews with a purposive sample of 25 SMEs which were established users or in the early stages of using EC4X in order to identify the issues confronting them in export development and the use of eCommerce. The interviews elicited a level of detail about business operations which provided a rich understanding of the wider context of EC4X development. To include a range of business types, the sample framework was drawn up to select businesses in four categories, depending on their level of export and eCommerce activity.

The following definitions were adopted:

- *Established export activity* was indicated by regular and planned provision of goods or services in an international market, even if that business accounted for only a small part of the business. The proportion of export share of the business ranged from 100% (2 companies) to 5% (2 companies) with an average of 49% of business activity devoted to export among the companies. Seventeen companies were established exporters.
- *Established eCommerce activity* was less easy to define because of the variable nature of the use of eCommerce technologies. Most businesses were on-line, used email and had a static website, but this did not indicate active eCommerce use. A business was deemed to have established eCommerce if it was able at least to take orders and provide customer service via its website or used more sophisticated applications for either business to business or business to consumer interactions. Fifteen companies had established eCommerce activity.

¹ Now the Department of Innovation, Industry and Regional Development

Table 1 shows the distribution of companies into four groups according to their classification along the variables of export activity and eCommerce activity.

Table 1: Levels of export and eCommerce activity in survey sample (N = 25)

		eCommerce activity	
		Established	Developing
Export activity	Established	<p>Group 1: n = 11 Exporting and using eCommerce to a significant degree</p>	<p>Group 3: n = 6 Significant level of export activity but not using eCommerce to a significant degree</p>
	Developing	<p>Group 2: n = 4 Significant levels of eCommerce use but not exporting regularly</p>	<p>Group 4: n = 4 Not engaged in either export or eCommerce to a significant degree but actively considering both</p>

In addition, the researchers conducted interviews with 8 representatives of industry and regional business organisations. These informants provided confirmation of the SME interviews as well as an additional, valuable perspective on the issues.

4. Study Findings

4.1 The Transition to EC4X

The interviewees gave a detailed account of how they moved into export, eCommerce and EC4X. Both established and beginner exporters overwhelmingly cited expansion and diversification of their market base as the main reason for moving into export. This was important to businesses for many different reasons: to overcome troughs and peaks in local markets, to expand the risk base, to provide improved cash flows, to reach markets for goods that the domestic market alone could not absorb and to achieve economies of scale in production.

The main reason given for developing eCommerce was the ability to reach new and potential customers and to achieve internal efficiencies. However only a small percentage were able to conduct business transactions from their web sites. One explanation for this appears to be a general lack of information technology expertise within the businesses, limited resources and uncertainty about eCommerce

applications. This is especially a problem in rural areas where expert advisors and mentors often are not readily accessible.

The analysis of the factors important in EC4X adoption highlights the importance of personal contacts, attending trade fairs, taking part in trade delegations in determining whether to move to export. As earlier reports commented 'while the Internet provides excellent means of doing business quickly once a link has been established, the process of establishing a relationship between buyer and seller and developing trust and mutual respect remains a critical foundation for the business relationship, just as it has always been' (DFAT, 1999:58) . It is often after establishing these international business contacts that eCommerce becomes critical to the business in developing and maintaining these relationships and developing international markets.

eCommerce is increasingly becoming a prerequisite for doing international business, in terms of maintaining personal relationships, realising internal cost efficiencies by streamlining operations and opening up new markets through electronic international marketing. Several businesses commented that in order to trade internationally it had become essential to use eCommerce.

Established exporters reported their reliance on networks and personal contacts and when the beginner exporters were asked how they would determine if they were export-ready the majority indicated that they would have to check out the market personally by paying a visit, attending international exhibitions or trade fairs, and making contacts with local agents. They would be partly guided by the level of interest they had from overseas and by their own market research. Several also indicated they would first need to ensure that they had adequate infrastructure in place to deal with exports – such as an appropriate web site, transport logistics in place, were across the documentation requirements etc. However a number of early exporters had not given much thought to the logistics issues associated with exporting their goods.

4.2 Requirements for EC4X Information

The interviewees were asked what information they required to help them begin or to develop EC4X. The responses for both export and eCommerce information are tallied in Table 2.

This not only indicates the scope of information needed, but the mixture of generic and specific information. For example, 7 interviewees (beginning eCommerce users) wanted general information about what eCommerce was and what applications were available and 8 wanted information about how to find a web designer at a very specific level. Sixteen mentioned import-export regulations and 12 wanted to find specific contacts.

Table 2: Information required to launch or extend EC4X

Export information	Number of mentions
International markets	16
Import-export regulations	16
Contacts with trading partners and agents abroad	12
Financial matters including payments and currency	4
Local customs and business practices	6
Logistics	3
eCommerce information	
IT and related technical matters	11
Website design and designers	8
Better general knowledge about eCommerce	7
Costs of going on-line	4
On-line finance and banking	4
Electronic marketing	4
On-line security	4
	N = 25

This list to some extent masks the range of specific and general information required. The level of specific information about regulations, for example, varied. For example, some mentioned very detailed information about customs requirements, others needed information relating to their industry or their specific product.

4.3 Sources of EC4X Information

Not only were we interested in discovering the type of information SMEs needed to embark on using EC4X, we also wanted to find out where they turned to find that information, as this would provide useful feedback on the channels to use to assist SMEs most effectively in the future.

The Commonwealth (national) government was associated with export information for both established and potential exporters. All 17 established exporters ranked personal contacts including agents as their main source of information. Government organisations (10) and industry associations (8) were the next ranked. Potential exporters ranked state and federal government information sources as

most likely to be useful followed by private providers (shipping agents, export agents, etc.).

The pattern of eCommerce information provision was very different. Sources of eCommerce information mentioned by eCommerce users were primarily IT providers and consultants (8 of the 15) followed by on-line sources (6). Five said there was no suitable information available at the time they were developing eCommerce.

For the companies in the early stages of eCommerce develop (who said their needs included general knowledge about what it was and what it could do), private providers were by far the highest ranked information source followed by industry associations. They were unaware of the EC4X information available from State government sources.

Additional comments made by respondents provide further insight about the pros and cons of accessing information from these sources. Personal relationships turned out to be a very highly rated source of information – contacts established at times of personal visits overseas, or at trade shows, information provided by customers or people who had experience in export, freight forwarders, import agents, regional export development officers. While people seem to be happy to look up much of the export information on-line, often there is no substitute for personal mentoring and one-to-one information transfer. A number of respondents emphasised the importance of combining research and networking, using both channels to gain a good knowledge of the area and business opportunities. However some businesses are still not confident they are using the Internet effectively to find information on-line, for example the export code for an unusual product. They want a personal contact to follow up. Some respondents mentioned the usefulness of individual advice they had received from Business Victoria's export advisers which provided personalised advice and 'someone to hold your hand'. Also of great value were personal contacts overseas.

Several respondents commented that information from Commonwealth government sites was too generic to meet their needs beyond a certain point and that they needed to go further. Business organisations both in Australia and internationally such as national Business Councils and Chambers of Commerce, employer and industry organisations, local business organisations and business service providers provide useful sources of advice for many industries. However not all industry groups are yet on-line, and not all can provide informed export advice.

Courses and workshops were not rated very highly either because they were too costly and time consuming to attend or because they were too generic and not focused enough. Beginner eCommerce users sought information from IT professionals and liked to speak to people who had already introduced eCommerce into their business. They preferred individual advice sessions mentoring from these groups. However, several participants mentioned difficulties in finding reliable and trustworthy sources of local eCommerce advice, indicating that not all such practitioners are good or impartial sources of information. This echoes findings from earlier studies (Castleman & Cavill, 2001) that pointed to the problems in the

capabilities and business practices of some IT and internet consultants and the difficulties that companies had in assessing their ability to provide high quality eCommerce services.

The high number of mentions of personal contacts is notable. Certainly personal contacts are likely to be more enduring (in many cases long-term relationships) and more memorable than official information sources.

4.4 Channels for EC4X Information Delivery

Having identified the range of EC4X information needs and the relevant sources of that information, a key issue for the study was the preferences the respondents had for the delivery of that information. What channels and what mix of channels would be most effective in getting the information to the users? How can this be done cost effectively?

Each respondent was asked to evaluate the format in which export information was provided. The results summarised in Table 3 shows the number of respondents who indicated the format was very useful.

Table 3: Assessments of Formats of Export Information Provision

	Designations as 'Very Useful'	Rank
On-line information; websites	19	1
Individual advice sessions	17	2
Printed brochures	12	3
Workshops and training courses	11	4
	N=25	

On-line information was endorsed as the most useful, although there were some limitations to relying entirely on on-line provision. The high ranking given to individual advice sessions is consistent with the strong approval of face-to-face and personal contact as a good information source. Although the need for printed material is not as important as it was before the spread of the internet and businesses going on-line, there is still evidently a need for printed information within an overall information and support strategy. While workshops and seminars were cited as a source of export information, they did not rate as highly as other sources. The explanation seems to be that SMEs are very resource poor both in terms of finances and time available. Some have attended workshops and have found them to be too generic and not addressing the issues of concern to them.

Many prefer to find the information on line, and to be advised of courses on specific topics.

The associations interviewed also confirmed that personal contacts and networking were likely to provide the most useful source of information for export. Trade missions, local agents and distributors were seen to be particularly useful. They also noted that one-on-one mentoring assistance, particularly in regard to export documentation would be very valuable. Training courses were viewed as useful, providing they could be provided at a low cost and were specific to the SMEs needs.

The relevance of these findings is that on-line information is seen as useful but it needs to be linked to other information sources (printed materials) and needs to facilitate personal contacts and linking with business contacts.

Asked to evaluate the format in which eCommerce information was provided, both groups ranked interactive sessions (individual or workshop sessions) as more useful than general information, with printed information being ranked as the least useful format. However, usefulness should not be confused with cost-effectiveness. The higher ranking of individualised and interactive sessions does not mean that they should replace general information provided on-line. Established eCommerce users ranked workshops and training courses as the second most important source of information, while beginner eCommerce users ranked on-line information sources higher. This is partly a reflection of the information that was on-line around 1997 when most of the established users introduced eCommerce and the information that is now available on-line.

Table 4: Assessments of Formats for eCommerce Information Provision

	Number of designations as 'Somewhat or Very Useful'	Rank
Individual advice sessions	18	1
On-line information; websites	16	2
Workshops and training courses	15	3
Printed brochures	13	4
	N=25	

4.5 Key Elements of EC4X Information Strategy

Governments have an important role to play in the provision of EC4X information and they will increasingly use the internet to do this effectively. They should focus on the provision of generic information about export and electronic commerce as they cannot realistically provide all the detailed information needed for diverse industries and destination countries. However, without links to the more specific

information and pointers about how to use these links, the value of the government efforts will be undermined. The links to more specific information will typically be to industry information sites.

Even access to specific on-line information will not be sufficient if there is not also some support for locating individualised sources of advice. Some kind of guidance to help companies find those individual sources would be useful, given the evidence that these connections remain critical in the development of EC4X. Governments need to be cautious about appearing to recommend private providers, but they may help by suggesting business directories and headings in those directories under which the right kinds of people can be found.

In Table 5 below we have set out an example showing the elements of an information strategy for one issue that will affect wine exporters. There are many other issues for which a similar table could be constructed for this group. Wine exporters need access to general information about customs regulations but also more detailed information about export labelling that applies specifically to wine. They are likely to need yet more specific information about how to label their wine for a particular exporter or a particular market.

The general information about customs can be provided on a government website (in this case, the Commonwealth government would provide that information with links in from State government websites). By following links to the relevant industry associations (in this case the Australian Wine and Brandy Corporation), the exporter can find details about the particular regulations for the export of wine (and of no interest at all to exporters of auto parts). Information about eCommerce can be structured along the same lines. General information on the government site about logistics and web-based tracking could link to specific information that related to the documentation needs of wine exporters provided on an industry website. For individual level advice, these sites refer to potential individual information providers, whether they are government, industry or private providers. The development of reciprocal links between these various sources will dramatically increase their usability and effectiveness.

Table 5: Aspects of and Integrated EC4X Information Strategy: An Example from the Wine Industry

	Export	ECommerce
Information Needs		
<i>Generic</i>	Customs regulations	Web-based logistics tracking
<i>Specific</i>	Wine export labelling	On-line documentation for wine industry
<i>Individual</i>	Wine labelling for a particular importer	Proprietary on-line logistics systems
Information Sources		
<i>Generic</i>	Australian Customs Service	Department of Transport and Regional Services
<i>Specific</i>	Australian Wine and Brandy Corporation - Export Grid	Australian Wine and Brandy Corporation – Wine Export Approval System
<i>Individual</i>	Suitable export agents	Shipping agents with IT capability
Information Delivery		
<i>Generic</i>	Government websites	Government websites
<i>Specific</i>	Industry websites	Industry websites
<i>Individual</i>	Individual import/export agents Government and industry export advisors; referrals	Individual shipping agents

An information strategy that gives primary focus to internet sources also needs to link to people not on-line and to more individualised sources of advice and networks. A promotion strategy must also include other channels to heighten the profile of the on-line site. Multiple channels will need to be maintained for some time yet, perhaps indefinitely. It is imperative to coordinate the on-line information service with other information sources, while moving the balance gradually toward the internet as yet more companies go on-line.

The *VicExport* strategy is designed to provide an informative, efficient website which points exporters to eCommerce information and other more specialised information sources. Many easily-navigated links between the export and eCommerce material and between the general and specific levels will help support SMEs developing EC4X.

5. Conclusions

This research has underlined the importance of an integrated information strategy for EC4X focused on the Victorian government website. It shows that on-line information provision is gaining increasing acceptance and it is likely that in the

future it will become the principal way that governments provide information and support. A good on-line information provision will link to other sources and help users find the sources most relevant to their particular needs without duplication. Thus, government becomes an information broker as much as an information provider.

However, personal links and networking will remain important. Many SMEs will need help to gain access to this individualised advice and to personal contacts in the export chain, especially in countries where language and culture are different. The optimal information strategy is one that pitches government provision at an appropriately general level and that links to more specific sources of advice and helps SMEs make the personal contacts.

Government sites should provide generic EC4X information on-line either directly or through links to other on-line data sources. They should provide links to specific information on-line (as to industry groups) and should encourage and refer to relevant business networks, regionally and industry-based organisations. Government will need to maintain its human infrastructure (networks and contacts to keep that information up to date) as well as its technical infrastructure. Good on-line information can help governments be more cost effective by focussing its individual advice to cases where this kind of customisation is essential. Good on-line provision can improve the efficiency of other means of information provision, making personalised advice available where and when it is most needed and effective.

Further research will explore how the EC4X information strategy can be scaled up to take advantage of inter-government information linkages. It will investigate how the *VicExport* site can best be promoted to all sections of the SME sector.

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