at RMIT

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Research Report

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Small Business and Electronic Commerce: An Australian Survey

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The Centre for International Research on Communication and Information Technologies is a research centre at the Royal Melbourne Institute of Technology.

CIRCIT was set up in 1989 to provide independent research and education on information and communication services. The aim is to create new knowledge that is relevant to the community, industry and government so as to increase the social and economic wellbeing of people in Australia and other parts of the world.

The CIRCIT research program is structured around three main themes:

1. **Use and Users of Information and Communication Services**

   The research focuses on the use of information and communication services by residential users, small businesses, corporations and government. It covers the broad area of communication in activities such as payments and finance, work, health, education, entertainment and government services.

2. **Policy and Regulation of Information and Communication Services**

   Policy and Regulation of Information and Communication Services focuses on national strategies and objectives, competition, and issues of access and equity.

3. **Information and Communications Industries**

   Information and Communications Industries research deals with developments in information technologies and services, industry policy and infrastructure issues.

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Preface

CIRCIT began an examination of the use of online services by small businesses during 1997 with a qualitative study of 27 small businesses. The complexity of designing online business approaches also became clear.

We then sought to test the understandings through a national representative survey, exploring the questions:

1. How do small businesses mix and match their use of traditional and online communication channels across business activities and across the groups with whom they are interacting? How important are online channels compared to face-to-face communication, the telephone, fax and the letter?
2. Why do small businesses choose a particular mix? How do the characteristics of the different communication channels influence this choice?
3. What characteristics of the business, proprietor and customer/supplier networks are related to the adoption or rejection of online services? What other factors trigger or impede the adoption of online services?
4. What government policies are most likely to help the effective use of appropriate online services?

Parallel with this project we were conducting a study on *Monitoring Australia's Progress Towards Effective Use of Online Services*[1], in which we were examining the concept of the "effective use" of online services, emphasising the value of use of online services. This survey also sought to explore the dimensions of value for small business.

This report provides the information possible to obtain through the survey method. It shows online services taking an important role in business processes, but it also makes clear the significance of traditional communication channels such as face to face, phone, and fax. This is an important context for viewing developments in electronic commerce.

The survey particularly considers payment transactions as a form of online activity and identifies a number of inhibitors to the effective use of electronic services. Current approaches do not yet fit with the requirements of users. An openness to the use of Internet linkages to government, but with comparatively little actual use of this channel, also suggests that the primary requirement is for the appropriate design of services to meet the needs of users.

The support of the Department of Industry, Science and Tourism (DIST), Telstra, Nortel Australia, and the South Australian Government for this research is acknowledged with appreciation. We would also like to thank them for engaging in the research dialogue. We also greatly appreciate the review we have received from David McGeachie of Australian Bureau of Statistics, and the participation and consultative role played by John Hall of the Victorian University of Technology with the survey.

John Burke, Director

[1] The report of this study is available on the CIRCIT web site at http://www.circit.rmit.edu.au/monausol/

Executive Summary

The survey completes the final stage of a three phase study of Australian small business and electronic commerce in 1997-1998[2]. Implications of the study for government policy are discussed in the report *Small Business and Electronic Commerce*[3].

This report provides findings on a postal survey of 675 small businesses across Australia from data collected in May 1998. A random representative sample was sought. Characteristics of the sample compare with the Australian Bureau of Statistics data across agricultural/non-agricultural sectors, state, and industry division. However the sample is under-representative of very small businesses and for businesses without access to Internet services and enabling equipment.

Access to Internet services and enabling equipment

Access to computers and modems among the small businesses surveyed is widespread. Over half are connected to the Internet, and over one fifth have a home page. If future predictions eventuate, an additional 35 per cent of small businesses will set up a home page by the year 2000.

Access to Internet services and enabling equipment is highest among business services/finance, transport/storage and manufacturing industries. Access to Internet services is significantly lower among rural businesses.

Table 1: Access to Internet services and enabling equipment

	Modem	Connected to Internet	Email	Home page	Online ordering system for the business
All small business	74%	55%	50%	21%	8.4%
Likely to set up by year 2000	+10%	NA	+26%	+35%	+20.5%

Use of communication channels

Analysis of use of traditional and Internet communication channels across a range of activities and interactions reveals that phone and face-to-face, supported by fax and post, remain central to small business communication. Internet channels play a smaller but significant role. Most of those with their own home page see it as important for marketing and promotion: 21 per cent of businesses have their own home page and 16 per cent see it as important for marketing. Nineteen per cent of small businesses see World Wide Web searching as an important way of getting information on goods and services.

[2] The first two stages of the study produced the research report *The Story of Small Business and Electronic Commerce,* by Singh, S and Slegers, C. Policy Research Paper No 43 Melbourne: CIRCIT at RMIT
[3] Singh, S and Slegers, C. *Small Business and Electronic Commerce* Policy Research Paper No 44 Melbourne: CIRCIT at RMIT

The majority of small businesses surveyed would be willing to use a wide range of services for interacting with government if it were possible. Of the various government activities, most (87 per cent) would like to get government information online (eg. services, regulations) and conduct vehicle registration online (70 per cent).

Value of Internet services

Small businesses with Internet access see its greatest value in improving efficiency within the business, helping reach new markets and improving the quality of service or product. Only 14 per cent of small business people see that access to the Internet has overtly increased their profitability.

Small businesses expect that between 1998 and the year 2000 their online purchases will increase tenfold, from around $1000 in 1998 to $10,000 in 2000. In the same period they expect sales to increase one hundredfold, from $1000 to $100,000 in the year 2000.

More of the small businesses surveyed are buying online than selling online. In 1997 5.8 per cent of small businesses bought goods/services online. In the same period less than three per cent of small businesses sold online.

Table 2: Dollar value for selling online 1997-2000

	1997	1998	1999	year 2000
Percentage of small business	2.8%	6.7%	11.4%	11.6%
Most common value	$1000-$4999	$1000-$4999	$10,000-$49,999	$100,000 - $499,999

Matching activities, channels and meanings

Why does a small business choose one channel to communicate for one activity and another channel for another activity? The answer from our qualitative study[4] was that the choice is influenced by the fit between the characteristics of the channel; the requirements of the business activity; the communication choices of the audience; and the social and cultural meanings associated with the activities and channels of communication.

The requirements of the business activity has been explored further through the survey by asking what factors are important when carrying out activities such as marketing and seeking information on goods and services. With marketing the greatest need is to establish a personal relationship with customers and give them up-to-date information. This helps explain why the phone and face-to-face interaction are most important for this activity. When a business is seeking information on goods and services there is a need for accurate, timely information to which the business has immediate access.

[4] Singh, S. and Slegers, C. (1998) *The Story of Small Business and Electronic Commerce.* Policy Research Paper No. 43. Melbourne: Centre for International Research on Communication and Information Technologies

Triggers and barriers to setting up Internet services

The instant communication of email, and the ability to send or exchange files and documents were the most important reasons for small businesses to set up email. Many businesses set up Internet services because they are cheaper for communication and updating information about the business.

The connection of a small business' customers, suppliers and/or service providers to the Internet is an important trigger for many to connect. Conversely those who are not connected state as a main reason that their customers are not online.

The cost of connection was less of a barrier than these factors for all small business, including those in rural and remote areas.

Analysis indicates that triggers and barriers to connection generally do not vary with geographical location of the business, and that cost is not a significant impediment to rural business setting up Internet services.

Payments transactions

Cheque by mail, supplemented by cheque over the counter, remain by far the dominant ways of paying service providers and being paid by customers. Direct debit has been used by over two thirds (68%) of all small businesses to pay for goods or services. Nineteen per cent of small businesses have paid for goods and services by credit card over the Internet.

Table 3: Use of online payments and online banking

	Have paid for goods/services by		**Have set up….**	
	Direct debit	Credit card over Internet	Phone banking	PC banking
All small business	68%	19%	28%	14%

Barriers to the use of online payment and banking

The most important factors preventing the greater use of online channels and electronic payments instruments is that present payments methods offer businesses greater control over their money and are seen to suit their business better. Businesses are concerned about the security of their money transactions, but the more important factor impeding the greater use of electronic money is that it still needs to demonstrate value for the business.

1. Introduction

Internet access is growing among Australians in general. In February 1998 more than 850,000 households had access to the Internet[5] and by May 1998[6] this had grown to almost one million households. Nearly 410,000 Australian adults bought goods and services over the Internet in the 12 months to May 1998, double that recorded in February 1998. International benchmarks consistently place Australian citizens among the top ten countries in the world in terms of adoption and use of online services[7].

It is now widely recognised that Australia must become a nation of providers of services and goods via the Internet in order to remain economically competitive. In 1998, however, 85 per cent of Australian householders buying via the Internet (175,000 persons), bought from overseas compared with only 50, 000 from Australia[8].

In this study we focus on the way people in small business use online services to communicate and do business with customers, other businesses and government. The emphasis is on the business and its activities[9] rather than the technologies or the products and services being sold. This approach complements the more common story of electronic commerce that is told in terms of small business' ownership of enabling equipment and access to Internet services, or which focuses on the actual or possible use of online services by small business[10]. The emphasis on use and activity allows us to focus on the way people in business mix traditional and electronic ways of communicating within their particular social and cultural contexts.

The survey completes the final stage of a three phase study of Australian small business and electronic commerce in 1997-1998. This report provides findings on a survey of small businesses across Australia. Data was collected in May 1998 via a mailed survey to 6000 small businesses. A total of 675 responses were received which fit the ABS definition of non-agricultural small business. This gave a response rate of 11.25 per cent. Details of the sample are over the page.

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5 Australian Bureau of Statistics (1998, May) *Household Use of Information Technology: Australia*. Catalogue number 8128.0 Canberra: AGPS.

6 Australian Bureau of Statistics (1998, August) *Use of the Internet by Householders: Australia*. Catalogue number 8147.0 Canberra: AGPS.

7 Towards an Australian strategy for the Information Economy (1998) Ministerial Council for the Information Economy; Burke, J. et al. (1998) *Australia's Progress Towards Effective Use of Online Services* http://www.circit.rmit.edu.au/monausol

8 Australian Bureau of Statistics (1998, May) *Use of the Internet by Householders*. Catalogue number 8147.0 Canberra: AGPS.

9 We have examined business activities such as marketing, ordering goods, seeking information on goods and services, paying service providers/suppliers, and receiving orders and payments.

10 See Yellow Pages Australia. (August, 1997). *A special report on technology in the small business sector.* Small Business Index. Burwood, Vic.: Yellow Pages Australia; Yellow Pages Australia. (April, 1998). *Survey of e-commerce in Australian small and medium businesses.* Small Business Index. Melbourne: Telstra Corporation Limited; WWW.Consult and Information Industries and Online Taskforce, DIST (April 1998) *Stats.: electronic commerce in Australia* At http://www.dist.gov.au/infoind/stats/ecomstat.pdf ; Victorian Employers' Chamber of Commerce and Industry (1998) *The electronic commerce survey: July 1998*. Hawthorn, Vic.: VECCI. Spectrum Strategy Consultants (1997) *Moving into the Information Society – An International Benchmarking Study* At http://www.isi.gov.uk/isi/mitis/ Federal Bureau of Consumer Affairs. (1997). *Untangling the web: Electronic Commerce and the Consumer.* Canberra: Australian Government Publishing Service

The CIRCIT Sample

The CIRCIT sample is a random sample of small business in Australia. The Australian Bureau of Statistics definition of small business was used[11].

The sample contains 675 small businesses. The final response rate was 11.25 per cent.

Characteristics of the sample compare with the Australian Bureau of Statistics data across agricultural vis-a-vis non-agricultural sectors, state/territory, and non-agricultural industry division across Australia and within each state.

However the sample is under-representative for very small businesses (0-4 employees) and over-representative for businesses with access to enabling equipment and Internet services.

A detailed explanation of the sampling approach and comparison of the characteristics of the CIRCIT sample with the ABS and Yellow Pages data is in the appendix.

Table 4: Characteristics of the sample

	CIRCIT sample (N=675)
Sector	
Non-agricultural	90.2%
Agricultural	9.8%
State (as % of non-agricultural)	
Victoria	27.2%
New South Wales	24.6%
Queensland	19%
Western Australia	12.8%
South Australia	10.3%
Tasmania	3.9%
Northern Territory	1.0%
ACT	1.2%
Industry division[12] (as % of non-agricultural)	
Mining	1.3%
Manufacturing	13.5%
Construction	15.3%
Wholesale	10.3%
Retail	23.5%
Transport/storage	4.4%
Finance & insurance	1.3%
Property & business	15.8%
Health and community services	5.6%
Cultural & recreational services	2.5%
Personal & other services	4.2%
Accommodation, cafes and Restaurants	1.3%
Education	1%
No of employees (% of non-agricultural):	
0-4	55.7%
5-19	41.5%
20-100	2.8%
Geographical Distribution	
Situated in rural or remote region	28.2%
Other	71.8%

[11] Australian Bureau of Statistics. (1997) *Small Business in Australia 1997*. Catalogue No. 1321.0. Canberra: Australian Government Publishing Service

[12] The industry divisions in the sample derive from classifications in the *Australian and New Zealand Standard Industrial Classification (ANZSIC) 1993 edition* (Cat. No. 1292.0)

2. Access

2.1 Access to Equipment

Access to computers and modems within small businesses is widespread. Ninety per cent of all small businesses in our sample have a computer and 74 per cent have a modem. A further 10 per cent plan to purchase a modem by the year 2000.

Even within micro businesses (those with less than 5 employees) 86 per cent have at least one computer and 66 per cent have a modem.

Table 5: Access to Internet services and enabling equipment

	PC (N =644)	Modem (N =605)
All small business	**90%**	**74%**
Likely to purchase by year 2000	**+4%**	**+10%**
0-4 employees	86%	66%
5-9 employees	95%	78%
10-19 employees	97%	91%

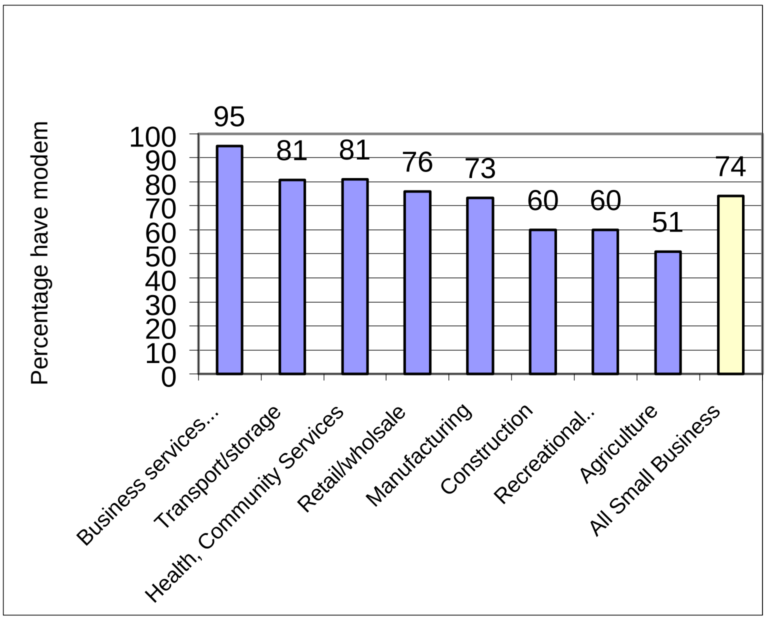
* The definition of access used is ownership or presence of the equipment at the business.

Industry Division

Access to a computer in small business varies little across the industry divisions but is slightly higher in business services/finance and transport/storage businesses.

Presence of modems in small business is uniformly higher among business services/finance, transport/storage and health/community services/education than other industry sectors.

Figure 1: Access to a modem



N = 605

Rural/non-rural Small Businesses

Analysis across geographical location reveals that rural businesses are significantly less likely to have access to equipment, most notably modems, than those situated in non-rural regions. Presence of modems is 63 per cent compared to 78 per cent in non-rural areas.

Table 6: Access to equipment across geographical location

	PC (N = 596)	Modem (N = 561)
Rural/remote region	84%	63%
Other	92%	78%
All small business	90%	74%

2.2 Access to Internet Services

The study focused on a range of Internet services such as email, home page, World Wide Web, and online ordering systems on home page[13]. If a business had any of these services it was deemed connected to the Internet.

Half the small businesses surveyed have set up email. Email access within micro businesses (those with less than five employees) is also high at 46 per cent. A further 26 per cent of all small businesses plan to set up email by the year 2000.

Over one fifth of all small businesses have set up a home page for the business. A significant 35 per cent more small businesses plan to set up a home page by the year 2000. Over 8 per cent of all small businesses have set up an online ordering system, with a further 20 per cent planning to set up such a system in the next two and a half years.

Table 7: Access to Internet services

	Connected to Internet (N = 673)	Email (N = 673)	Home page (N = 671)	Online ordering system on home page (N = 537)
All small business	**55%**	**50%**	**21%**	**8.4%**
Likely to set up by year 2000	**NA**	**+26%**	**+35%**	**+20.5%**
0-4 employees	NA	46%	17%	7.4%
5-9 employees	NA	51%	23%	8.2%
10-19 employees	NA	64%	31%	8.8%

Industry Division

Access to email, home page and online ordering systems are uniformly higher among business services/finance, transport/storage and manufacturing businesses than other industry sectors. These industries were among those identified as benefiting from being online by the DIST report and others[14] because they rely heavily on information in at least

[13] Online payment channels and online banking was also examined but they are discussed separately, in Sections 6-9.
[14] Information Industries and Online Taskforce (1998) *Getting Business Online*, Report for the Department of Industry Science and Tourism (DIST), May, http://wwwdist.gov.au/infoind/busonline/gbo.pdf ; Forrester Research (1997). Sizing Intercompany Commerce, Business Trade & Technology Strategies. Cambridge, Mass., Forrester Research Inc. Other industries singled out by the DIST report as benefiting from being online were retail of software, books and entertainment, service industries such as tourism, education businesses and the pharmaceutical industry.

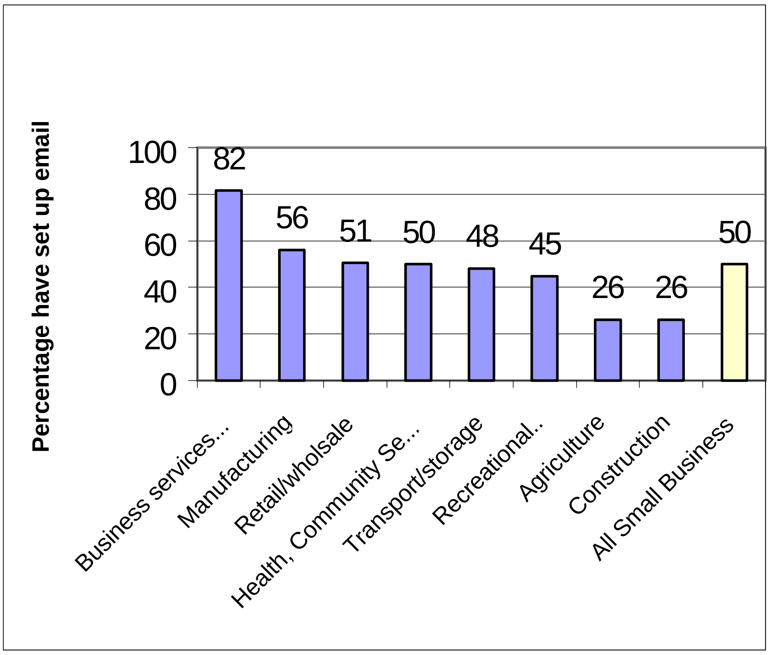
part of their activities or, in the case of finance, have been protected from competition by natural or regulatory barriers that can be circumvented by electronic commerce. The DIST report suggests there should be 90 per cent takeup of online services these industries within five years. Findings are shown in the tables below.

An exception to the above pattern of access is the higher than average presence of the home page among recreation/personal services businesses: 29 per cent have a home page.

Those most likely to set up a home page for their business by the year 2000 are business/financial services and retailers/wholesalers.

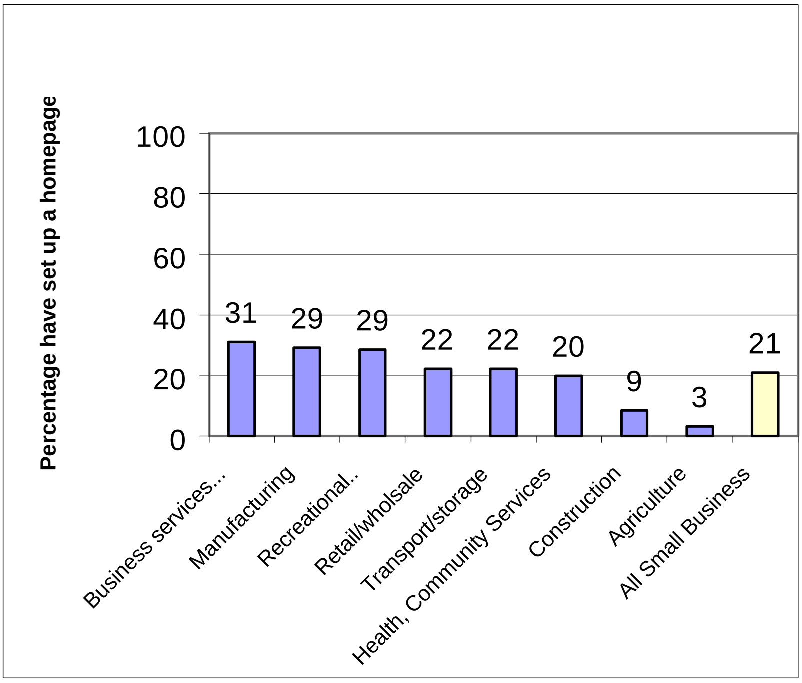
Access to Internet services is uniformly lower among agriculturists and building/construction businesses.

Figure 2: Access to email across industries



N= 673

Figure 3: Have a home page across industry

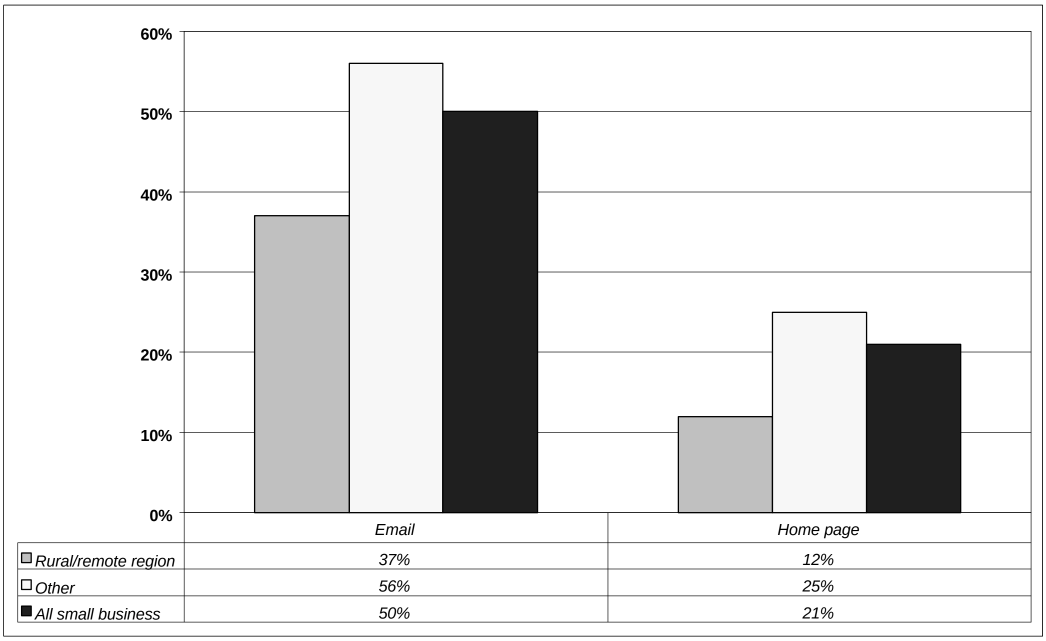


N = 671

Rural/non-rural small businesses

Level of home page presence in rural businesses is less than half that of non-rural businesses. Access to email is also substantially lower, as shown in Figure 4. Explanation for the lower level of access to online services in rural areas remains unresolved within the confines of this survey and requires further work. Triggers and barriers to setting up online services for *all* businesses are discussed in Section 5. Analysis indicates that barriers and triggers generally do not vary with geographical location of the business, and that cost is not a primary impediment to rural business setting up Internet services.

Figure 4: Access to Internet services by geographic location



N = 623 N = 621

3. Use of Communication Channels Across Activities

Use of traditional and Internet communication channels across a range of activities such as marketing, ordering and receiving orders, and communicating within the business was examined. Respondents were asked to rate the importance of the telephone, post, face-to-face interaction, fax , email, home page, and other channels in carrying out these activities[15].

Phone and face to face, supported by fax and post, remain central to small business for the full range of business activities surveyed. This is shown in Table 8.

Internet channels are playing a smaller but significant role. Most of those with their own home page see it as important for marketing and promotion: 21 per cent of businesses have their own home page and 16 per cent see it as important for marketing. Nineteen per cent of small businesses see World Wide Web searching as an important way of getting information on goods and services. However only 13 per cent see email as important for ordering goods or services for the business, whilst 50 per cent of businesses surveyed have it.

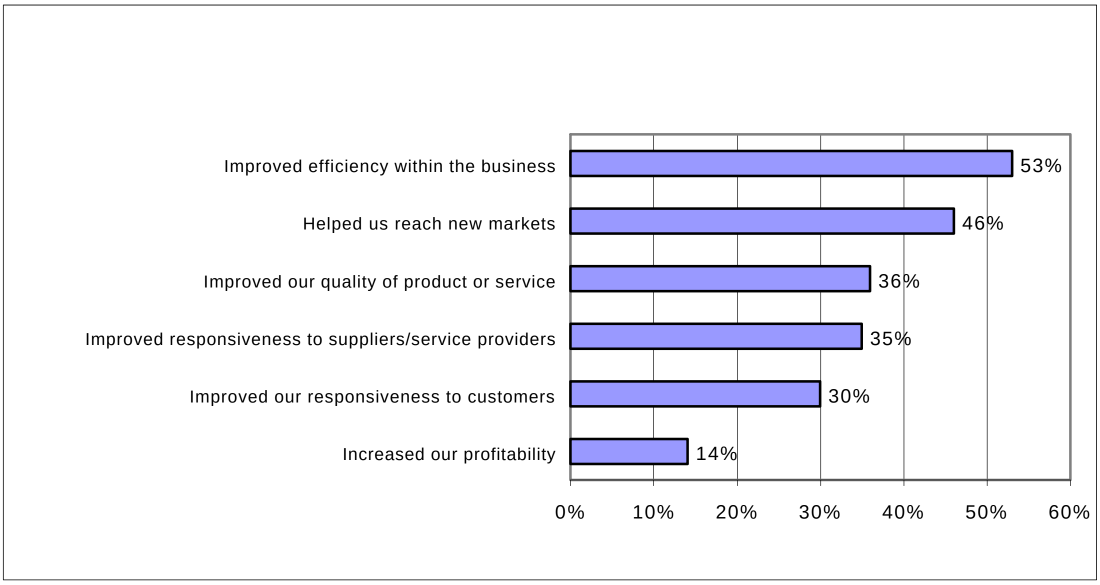
Section 11 examines how small businesses communicate with government. The question of why small business people mix communication channels in this way and why face-to-face interaction and phone calls are so important is explored in Section 5.

[15] Respondents were asked to rate each communication channel listed from 1 (no importance) to 5 (very important) for each activity. To understand the relative importance of each channel for each activity, the responses of four and five were totalled, and produced the table over the page.

Perceptions of value of Internet Connection

Small businesses see that connection to the Internet has helped them do their business better. Internet access has been recognised to improve efficiency within the business, help reach new markets and improve their quality of service or product. Relatively fewer small businesses (14 per cent) see that access to the Internet has overtly increased their profitability. These findings are illustrated in Figure 5.

Figure 5: Perceptions of value of Internet connection



N = 235

Table 8: Importance of different communication channels across activities

Activities	Percentages of respondents who saw the channel as "important" and very "important"						
Marketing, promotion	Phone 85%	Face-face 84%	Mail 49%	Fax 30%	Home page 16%	Other Internet channels 7.7%	TV advertising 7.1%
Receive orders	Phone 84%	Face-face 69%	Fax 67%	Mail 45%	Email 15%	Online ordering via home page 4.5%	
Order goods/services	Fax 82%	Phone 80%	Face-face 44%	Mail 29%	Email 13%	Modem to modem 4.9%	Online ordering via home page 3%
Communicate within business	Face-face 89 %	Phone 71%	Fax 32%	Mail 19%	Email 16%		
Get information on goods and services	Phone 72%	Mail 66%	Face-face 63%	Fax 62%	WWW searching 19%	Email 19%	

4. Matching Activities, Channels and Meanings

In order to understand the mix of communication channels in small business, we asked: Why does a small business choose one channel to communicate for one activity and another channel for another activity? The answer from our qualitative study[16] was that the choice of communication channel is influenced by the fit between:

- The characteristics of the channel;
- The requirements of the business activity;
- The communication choices of the audience; and
- The social and cultural meanings associated with the activities and channels of communication.

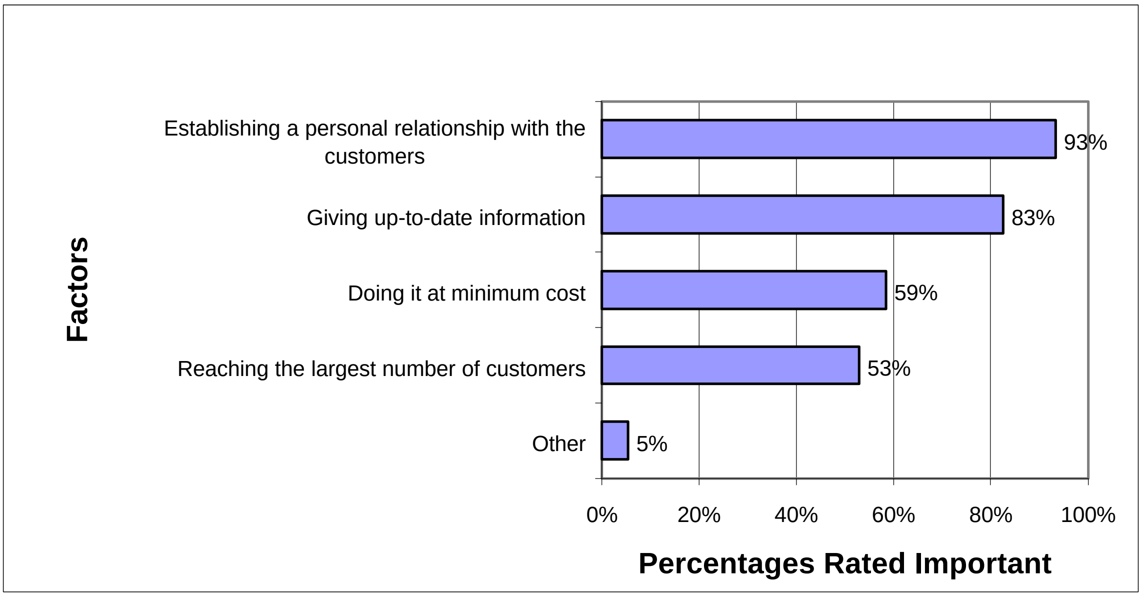
Examining face-to-face interaction, telephone calls, fax, email and the home page, the qualitative study explains that we can place the different communication channels and business activities along dimensions such as: record of interaction, sense of personal communication, speed for written communication, and reduction in ambiguity.

The requirements of the business activity has been explored further through the survey by asking what factors are important when carrying out activities such as marketing and seeking information on goods and services. With marketing (Figure 6) the greatest need is to establish a personal relationship with customers and give them up-to-date information. This helps explain why the phone and face-to-face interaction are most important for this activity. When a business is seeking information on goods and services there is a need for accurate, timely information to which the business has immediate access.

The survey also substantiates the importance of characteristics relating to the channel through examination of what hinders or triggers takeup (Section 5). The most important trigger for setting up email was that it made possible instant communication and enabled a business to transfer digital files. The home page and the WWW allowed businesses to reach out across both time and space.

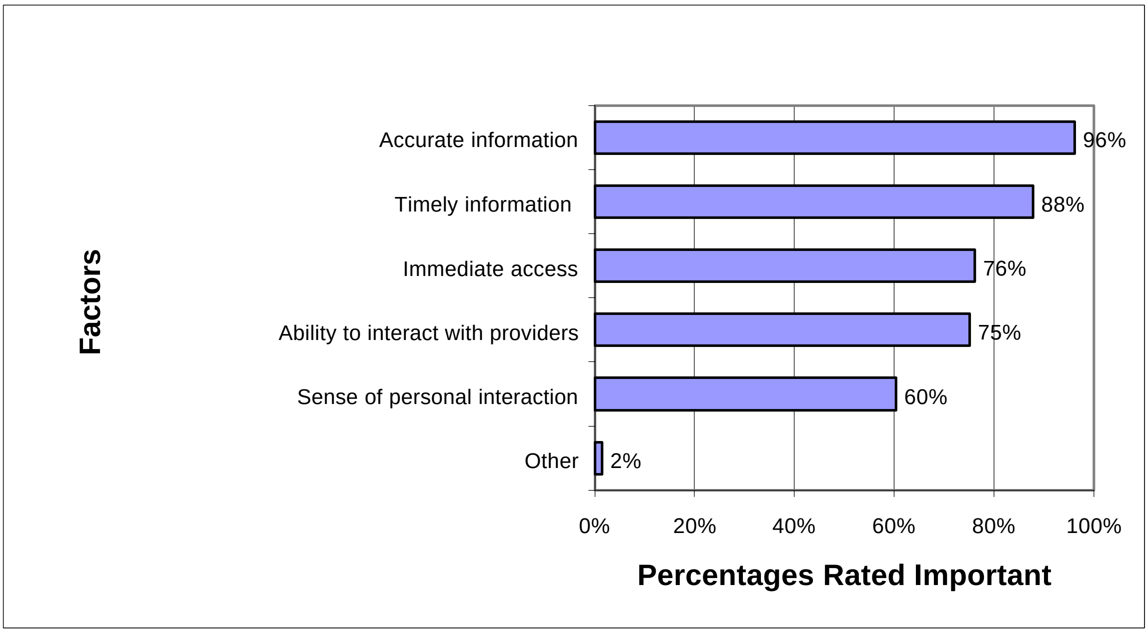
[16] Singh, S. and Slegers, C. (1998) *The Story of Small Business and Electronic Commerce* Policy Research Paper No. 43. Melbourne: Centre for International Research on Communication and Information Technologies

Figure 6: Marketing the business : important factors



N = 633

Figure 7: Seeking information on goods/services : important factors



N = 639

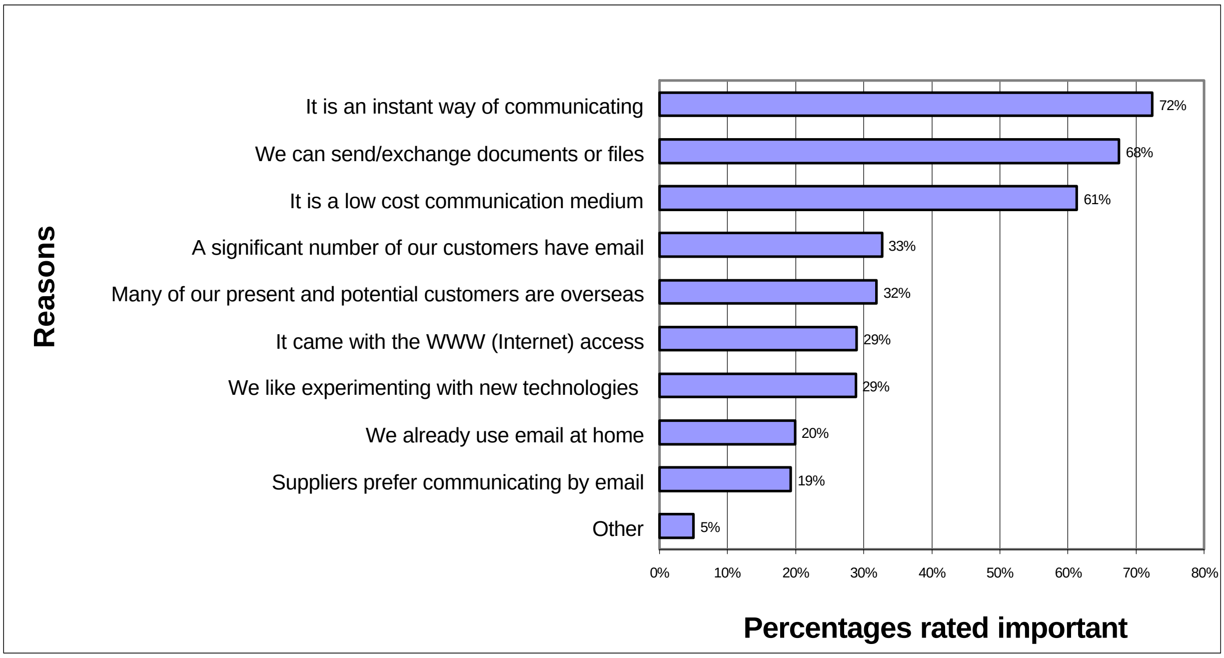
5. Factors Influencing the Set up of Internet services

Triggers

The instant communication of email, and the ability to send or exchange files and documents are the most important reasons for small businesses to set up email. Email and home page were set up by many because they are cheaper for communication and updating information about the business. This is illustrated in Figure 8 and Table 9 below.

The greater customer reach of the home page was most important. An image of innovation was important for 63 per cent of small businesses.

Figure 8: Triggers to setting up email



N = 465

Table 9: Triggers to setting up a homepage

To reach customers nationally and internationally	76%
Ensuring business survival in an age of electronic commerce	68%
It shows our business is innovative	63%
It is a cheaper way of updating information about the business	50%
To enable Internet sales and orders	50%
Our competitors have a home page	25%
We had the expertise to set it up	22%
We feared we would not have a business in the next five years otherwise	13%
Did a cost benefits analysis of information provision, payments and/or delivery	6%
Other	4%

N = 364

Barriers

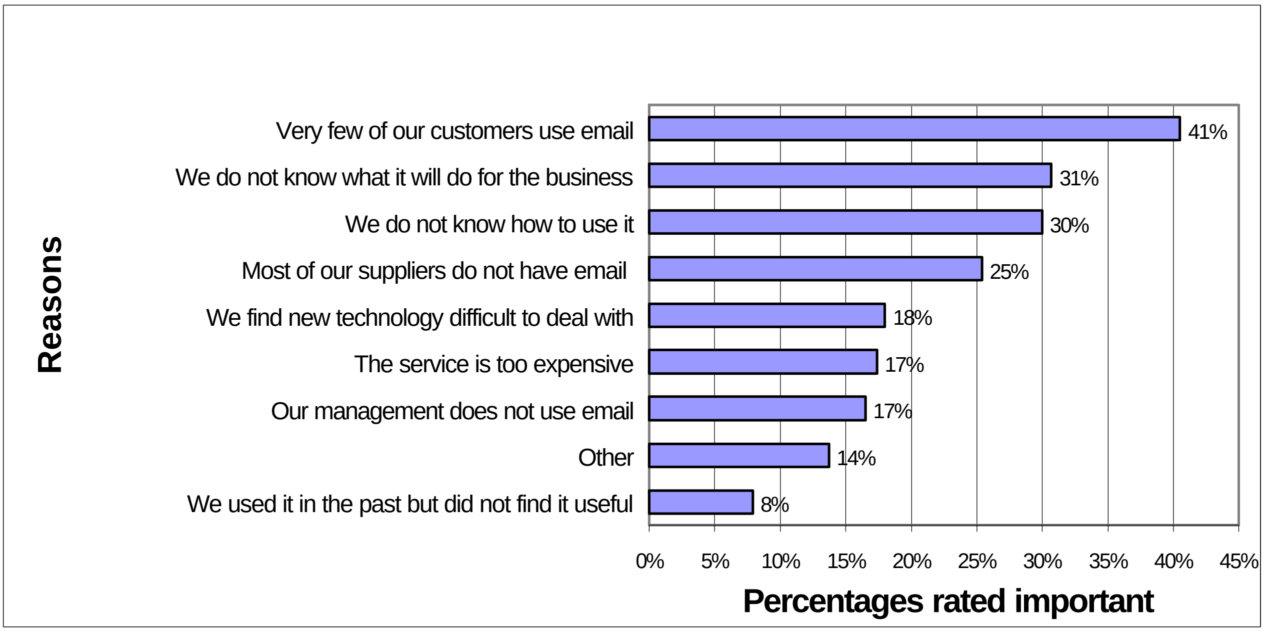
The most important barriers to accessing Internet services are lack of awareness and skills.

The connectedness of a small business' networks of customers, suppliers and service providers is a more important factor in hindering takeup than triggering it. Those without email say the most important reason is that very few of their customers have it. Over one quarter (29 per cent) of small businesses report they have not set up a home page because their customers are not on the Internet.

The cost of connection was identified as less of a barrier than these factors for small business, including those in rural and remote areas. However these factors may well come into play when other motivational factors are overcome.

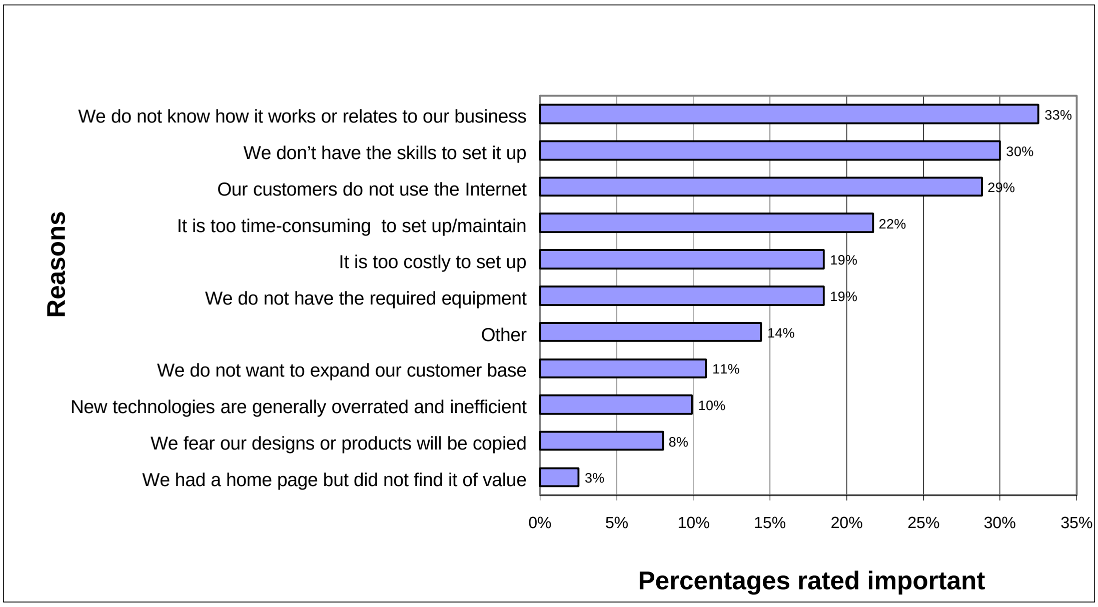
A negative attitude to new technologies is a barrier to takeup for a fifth of the businesses surveyed: 18 per cent indicated an important reason they did not set up email was that they find new technologies difficult to deal with. Ten per cent said that they did not set up a home page because they find new technologies overrated and inefficient.

Figure 9: Barriers to setting up email



N = 140

Figure 10: Barriers to setting up a home page



N= 240

6. Payment Transactions

Exploring the use of online payments we found that direct debit has been used by over two thirds (68 per cent) of all small businesses to pay for goods or services. Almost one fifth of small businesses have paid for goods and services by credit card over the Internet.

Over 14 per cent of small businesses have set up online banking through their personal computer. Over a quarter of businesses (27 per cent) plan to set up PC banking by the year 2000. Phone banking has been set up by 28 per cent of small businesses to date. However 20 per cent plan to set it up by the year 2000.

Use of PC banking and direct debit increases with employee size, but there is no similar relationship with phone banking.

Table 10: Use of online payments and online banking

	Have paid for goods and services by…		Have set up……		
	Direct debit (N= 660)	Credit card over Internet (N= 675)	Phone banking (N= 659)	PC banking (N = 666)	EFTPOS for customers (N= 567)
All small business	**68%**	**19%**	**28%**	**14%**	**28%**
0-4 employees	64%	22%	28%	7.7%	24%
5-9 employees	72%	20%	26%	15%	31%
10-19 employees	75%	11%	31%	31%	35%

Industry Division

Use of PC banking, phone banking, credit card over Internet, and direct debit in small business do not vary across industry divisions as evidenced by an absence of statistical relationships between the items.

Retail/wholesalers (52.5 per cent), and recreational/personal services sectors (19 per cent) are more likely to have an EFTPOS system in place for their customers. However only 12.3 per cent of business services/finance have EFTPOS for customers.

7. Use of Payments Channels Across Activities

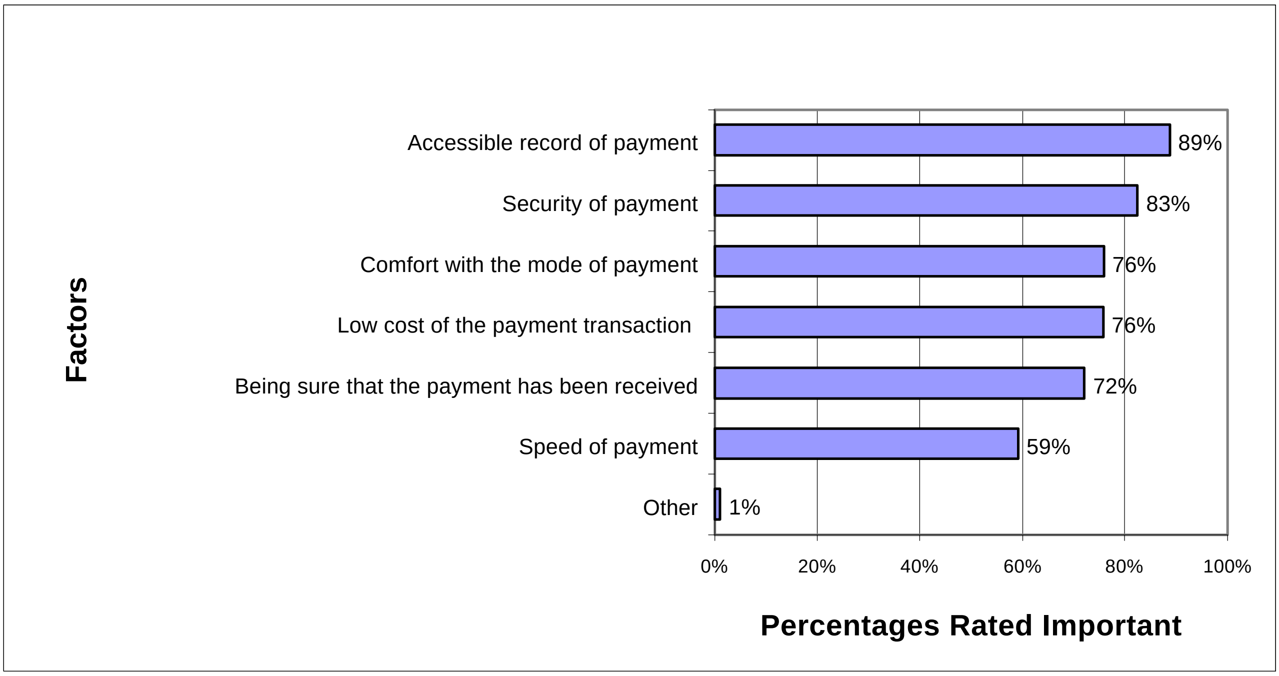
The importance of the fit between the characteristics of the channel and activity, communication choices of the audience and meanings ascribed to the channel of communication is demonstrated in the choice of payments instruments and transaction modes.

Cheque by mail remains by far the dominant payment channel for paying and being paid for over eighty per cent of the small businesses in the sample, as shown in Table 11. Cheque over the counter is an important way of paying for over one quarter of small businesses and an important way of receiving money for nearly 40 per cent of all small business. This is because having an accessible record of payment that is secure and feels comfortable are the most important factors in the choice of payment. The qualitative study found that the comfort with the cheque is that it generates a paper record in the cheque butt, which is central to the way small businesses account for and prove expenditure.

Direct debit is an important way of paying service providers and/or suppliers for almost one quarter of small business and an important way of receiving money for over one third of the businesses.

Although 55 per cent of the small businesses surveyed are connected to the Internet and 50 per cent have email only 2.8 per cent see the (encrypted) credit card over the Internet as an important way of paying. One and a half per cent of small businesses see the unencrypted credit card as important.

Figure 11: Paying for a product/service : important factors



N = 632

Table 11: Importance of different payments instruments and channels for different activities

Percentages for "important" and "very important"											
Payments for goods/services	Cheque by mail (93.9%)	Cheque over counter (27.5%)	Direct debit (22.7%)	Credit card no. over phone (21.5%)	Credit card over counter (17.9%)	Phone payments from bank account (10.4%)	Credit card no. by fax (9.9%)	Cash (9.2%)	EFTPOS (7.3%)	Credit card no. over Internet (encrypted) (2.8%)	Credit card no. over Internet (unencrypted) (1.5%)
Payment from customers	Cheque by mail (84.4%)	Cheque over counter (39.4%)	Cash (36.3%)	Direct credit (36.1%)	Credit card over counter (26.7%)	EFTPOS (18.6%)	Credit card no. over phone (15.5%)	Credit card no. by fax (7.8%)	Credit card no. over Internet (2.5%)		
Pay employees	Cheque (61.3%)	Direct debit (39.7%)	Cash (31.8%)								

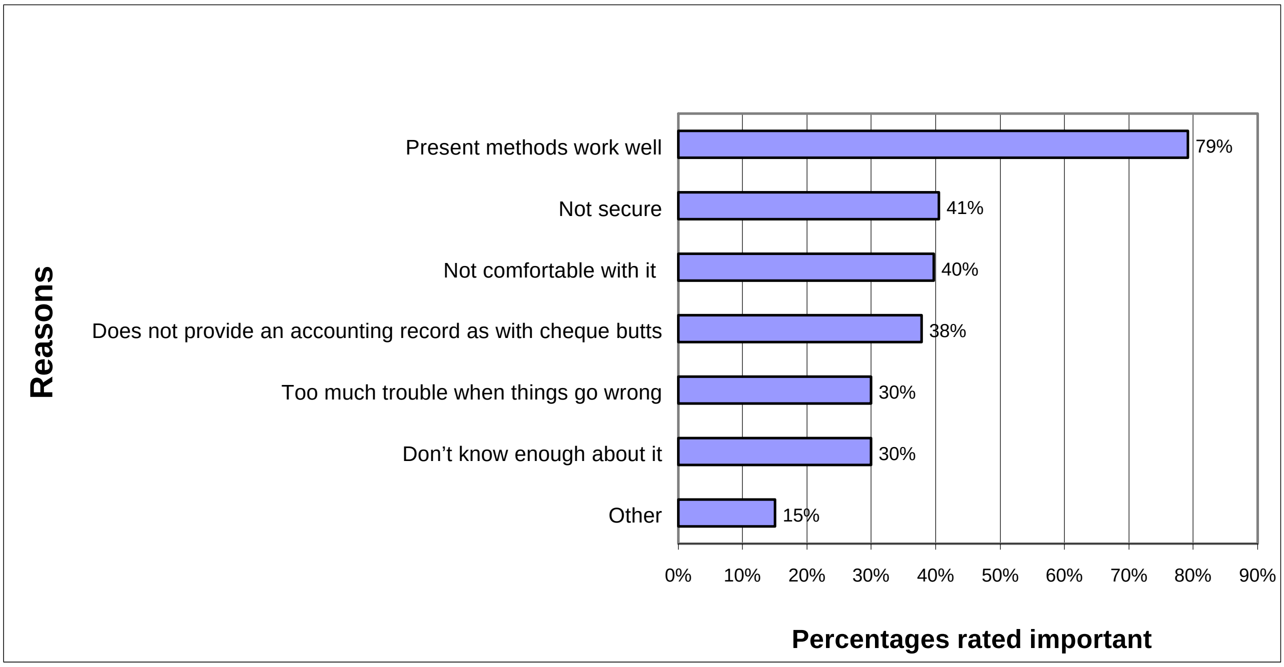
8. Barriers to the Use of Online Payment and Banking

The most important factor preventing the greater use of online channels and electronic payments is that present payment methods offer businesses greater control over their money and are seen to better suit their business.

Internet Credit Card

Small business people do not use the credit card over the Internet because present methods work well. This echoes the findings in the qualitative study which revealed that many continue to use the cheque because it generates a record which fits in well with the way they track and account for their money.

Figure 12: Barriers to using credit card over the Internet

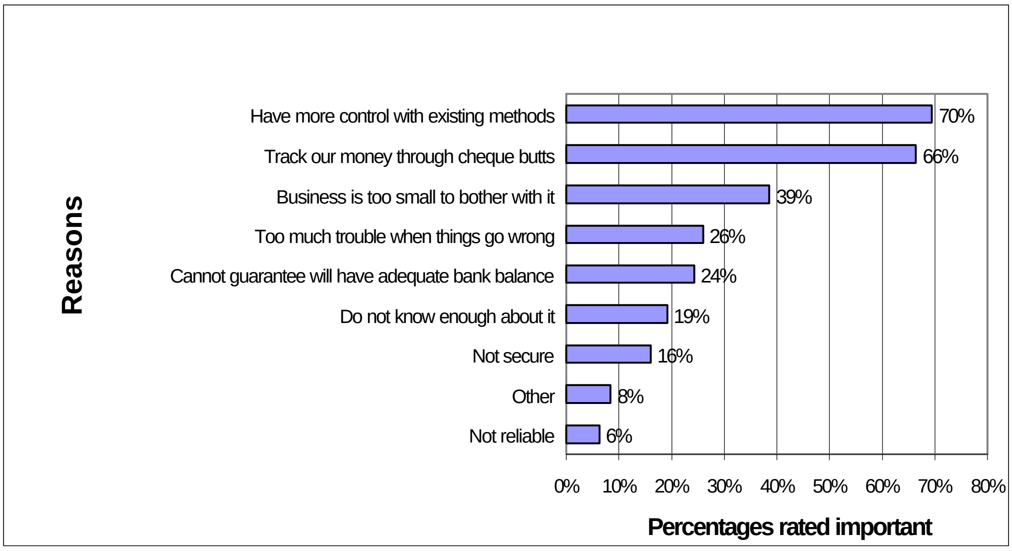


N= 530

Direct Debit

The findings on barriers to using direct debit show that small business people feel they have more control with existing methods such as cheques. It is clear that reliability, redress, bank balance, security, size of the business and awareness are not the most important problems, though they would alert the banks that there is potential for increasing the take up if these are addressed.

Figure 13: Barriers to using direct debit

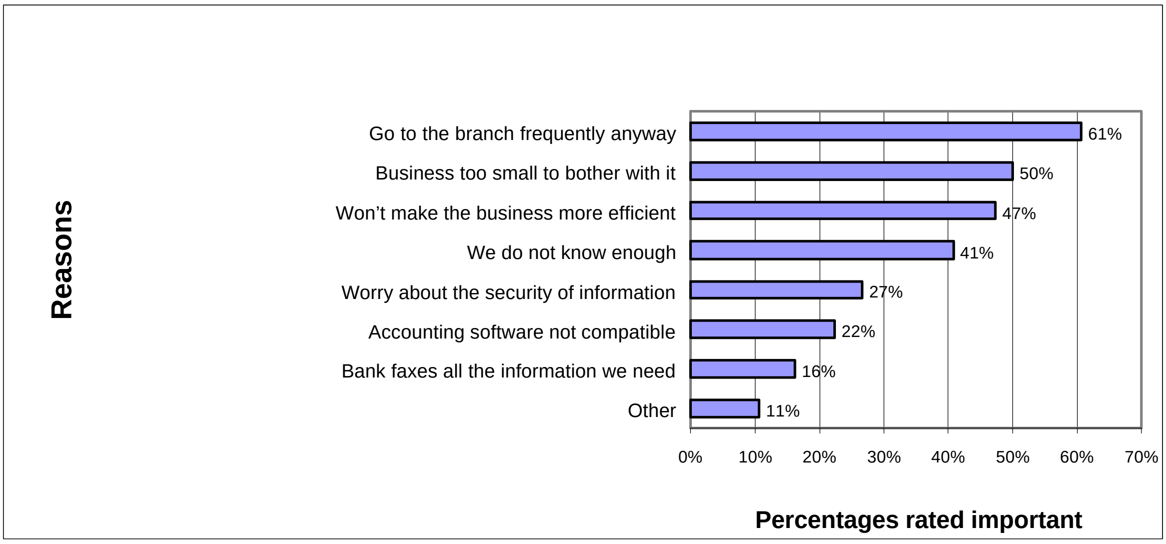


N = 193

PC Banking and Phone Banking

The most important reason for not using the phone or the PC more is that people in small business go to the branch frequently to deposit cheques and cash. Other important reasons are that the business is too small to bother with it and they do not believe phone or PC banking[17] will make the business more efficient. It is significant that only about one quarter of respondents see security as an important reason not to use PC banking and phone banking.

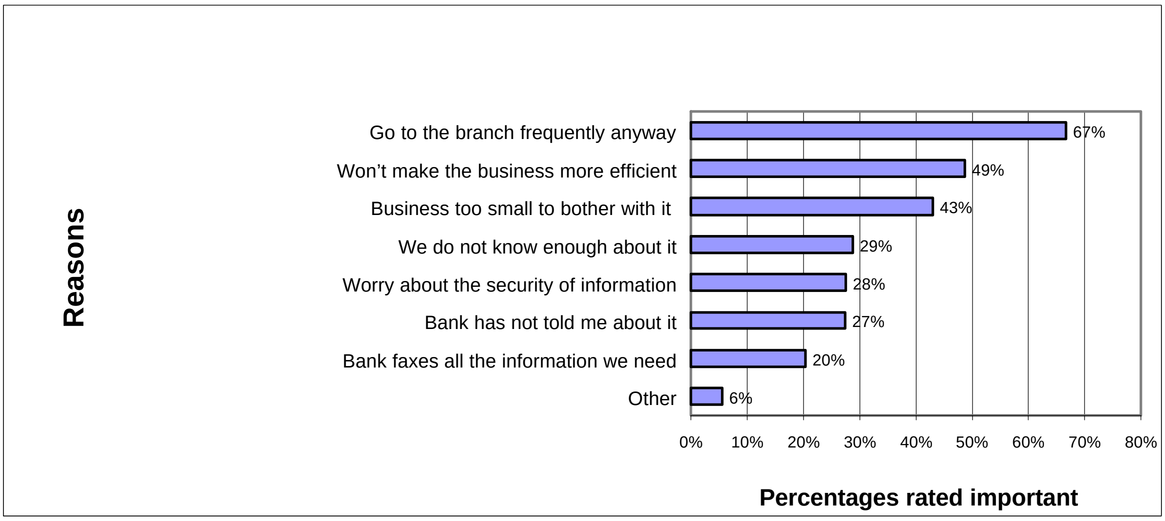
Figure 14: Barriers to using PC banking



N = 364

[17] Reasons clustered under 'other' include: no PC and/or Internet access, no perceived need and not set up or promoted by bank.

Figure 15: Barriers to using phone banking



N = 330

9. Value of Purchases and Sales Over the Internet, 1997-2000

Small businesses surveyed expect that between 1998 and the year 2000 their online purchases[18] will increase tenfold, from around $1000 in 1998 to $10,000 in the year 2000. In the same period small businesses expect their sales to increase one hundredfold, from $1000 to $100,000 in the year 2000.

The figures presented are indicative rather than conclusive, because only a small fraction of the sample are buying and/or selling over the Internet.

More small businesses surveyed are buying online than selling online. The tables below show that in 1997 nearly 6 per cent purchased online, with the most common amount purchased per business in that year being less than $500. In 1998 nearly 10 per cent of small business people purchased online, with the most common amount spent that year between $1000 and $5000.

In 1997 less than 3 per cent of small business people sold anything on line. The most common amount sold in that year was in the range of $1000 to $5000.

Table 12: Dollar value for purchasing online

	1997	1998	1999	year 2000
Number of small businesses	39	67	80	78
Percentage of small business	5.8%	9.9%	11.9%	11.6%
Most common value	less than $500	$1,000-$4,999	$1,000-$4,999	$10,000-$49,999

Table 13: Dollar value for selling online

	1997	1998	1999	year 2000
Number of small businesses	19	45	77	78
Percentage of small business	2.8%	6.7%	11.4%	11.6%
Most common value	$1,000-$4,999	$1,000-$4,999	$10,000-$49,999	$100,000 - $499,999

[18] Definition of "purchasing over Internet" in the questionnaire was: "goods/services ordered and/or paid [by the small business] using the Internet". Definition of "selling over Internet" in the questionnaire was: "goods/services ordered and/or paid using the Internet".

10. Transactions with Government

Communication Channels Used with Government

Small business people were asked what communication channels they currently use when interacting with government across a range of activities. Table 14 illustrates the findings.

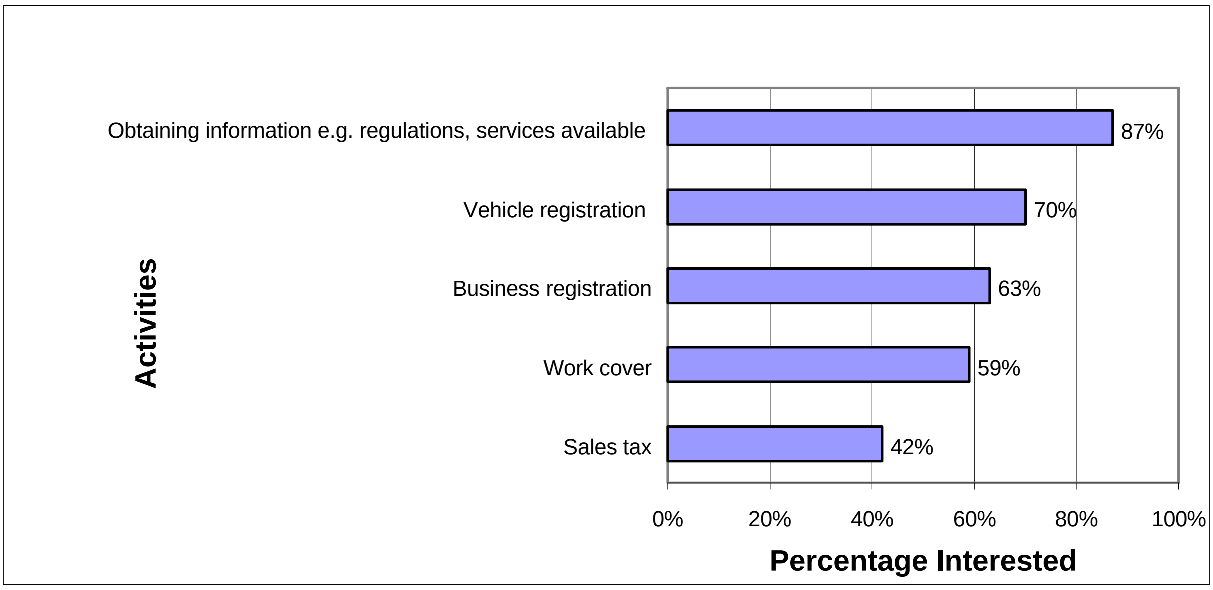
Mail is the predominant communication channel used by small businesses when they deal with the government. The phone, fax and the Internet are important for gaining government information. At present 13 per cent use online services for government information. However 87 per cent of small businesses would like to use the Internet for government information if possible and 70 per cent would like to do Internet vehicle registrations.

When conducting income tax returns post is used by 58 per cent of small business people but electronic lodgement/email is also favoured by 25 per cent.

Future Use of Online Services for Government Related Activities

The majority of small businesses surveyed would be willing to use a wide range of services for interacting with government if it were possible. Of these activities, most (87 per cent) would like to get government information online (e.g. services, regulations) and conduct vehicle registration (70 per cent).

Figure 16: Future use of online services with government activities



N = 421

Table 14: Communication channels used with government

Business registration	Post (70%)	Face to face (18%)	Phone (12.4%)	Fax (11%)	Email/WWW/electronic lodgement (2.7%)
Vehicle registration	Post (58%)	Face to face (38%)	Phone (5%)	Fax (2.4%)	Email/WWW/electronic lodgement (0.7%)
WorkCover	Post (78%)	Phone (10.7%)	Fax (7%)	Face to face (6%)	Email/WWW/electronic lodgement (0.9%)
Income tax	Post (58%)	Email/WWW/electronic lodgement (25%)	Face to face (17%)	Phone (8%)	Fax (7%)
Sales tax	Post (44%)	Face to face (7.3%)	Phone (6.4%)	Fax (5.5%)	Email/WWW/electronic lodgement (2.1%)
Obtaining information e.g. regulations, services available	Post (58%)	Phone (41%)	Fax (23%)	Email/WWW/electronic lodgement (12.7%)	Face to face (10%)

Appendix

The Sample

Data was collected in May 1998 via a mailed survey to 6000 small businesses. Responses to the survey numbered 741, yielding a response rate of 12.4 per cent. A number of responses were removed at the analysis stage because they do not fit the Australian Bureau of Statistics definition of small business[19] producing a total of 675 surveys which were analysed for this report and a final response rate of 11.25 per cent.

Sampling methodology

We aimed for a representative sample of small businesses in Australia. The method chosen to obtain a representative random sample was clustered stratified random sampling.

For sampling purposes we have used the key characteristics and definitions of non-agricultural small business as depicted in the Australian Bureau of Statistics publication[20]. Businesses in our sample have under 20 employees for non-manufacturing businesses and up to 100 employees for manufacturers.

The source of the sample is the Dunsfile database from Dunn and Bradstreet Marketing, listing over 20, 000 businesses. Although the list is overweighted for some industry divisions necessitating the use of stratification, it was the most comprehensive list available to us. This source records key characteristics to aid the stratified random sample approach. Other sources, such as industry associations, would have yielded an unrepresentative sample requiring complex weighting.

We used the ABS percentages on state, industry sector and employee number. Taking the non-agricultural sector first (89.6 per cent of total small business), the database list was stratified initially into representative numbers from each state. Each state cluster was then stratified by industry division (according to percentage for that state). These state industry divisions were further stratified by employee number, using the *national* percentages because these were fairly consistent across all the states, for non-employing firms, those with 1-4 employees, those with 5-19 employees, and those with 20-99 employees for manufacturers.

The agricultural businesses were drawn to comprise 10 per cent of the total number of small businesses in the sample. These agricultural businesses were stratified by state to yield representative numbers from each state. These groups were then stratified to get

[19] The ABS publication *Small Business in Australia 1997*. (1998) defines a key criteria of small business as having less than 20 employees if non-manufacturing and up to 100 employees if manufacturing. A small business also has the following management or organisational characteristics : it is independently owned and operated; it is closely controlled by owners/managers who also contribute most if not all the operating capital; and the principal decision making functions rest with owners/managers.

[20] *Small Business In Australia* (1998) Catalogue No. 1321.0. Canberra: Australian Government Publishing Service. The exception to this has been in sampling the agricultural businesses, where the 1995 version of this publication was used.

representative numbers from livestock enterprises (72.7 per cent) and non-livestock enterprises (27.2 per cent). The state groups were not stratified by industry (e.g. vegetable grower, fruit grower, pig farmer) as it was thought to be unnecessarily detailed for a sample of this size. These state industry divisions were not stratified by employee number as the agricultural sector employs mainly itinerant and seasonal workers: we included all businesses with less than 20 employees. The EVAO (estimated value of agricultural operations) was not used to segment because this information was not available on the database.

We requested 6000 business names aiming for a response rate of around 20-25 per cent[21]. The questionnaire was posted to 6000 small businesses across Australia. Letters were addressed to the proprietor.

The initial response rate was only 10% with 600 returned surveys[22]. Having anticipated that we would need to telephone a proportion of the businesses to boost the response rate, five hundred names were randomly drawn (by taking every twelfth name) from our original Dunn and Bradstreet list of 6000 businesses. We phoned them to remind them to send the survey back or to consider us resending a new copy for them to post or fax back. We then telephoned 500 more randomly chosen businesses in the same way. At this time we also posted 250 *new* businesses with the survey, stratified this time only by state as it was such a small group. These were needed because of the 250 redundant business names Dunn and Bradstreet had given us. We followed this up by telephoning these businesses to alert them to the survey. These actions yielded a total of 141 more returned surveys.

Comparison of the CIRCIT sample with Australian Bureau of Statistics and Yellow Pages data

Business characteristics

Characteristics of the sample compare with the Australian Bureau of Statistics data[23] across agricultural vis-a-vis non-agricultural sectors, state/territory, and non-agricultural industry division across Australia and within each state. A comparison of the characteristics of the CIRCIT final sample with the ABS small businesses study is illustrated in Table 15.

CIRCIT's sample contains 9.8 per cent agricultural businesses compared with ABS's 10.4 per cent. The CIRCIT sample contains a breakdown of states comparable to that of the ABS, with 27.2 per cent of CIRCIT's firms from Victoria compared to 24.5 per cent in the ABS study; and 19 per cent of CIRCIT businesses from Queensland compared to 19 per cent in the ABS study. However the CIRCIT sample is slightly under-represented by businesses from New South Wales with 24.6 per cent compared with 33.3 per cent in the ABS survey.

The breakdown of non-agricultural industry divisions within each state is generally comparable with the ABS data. For example in Victoria the ABS data yielded 17.69 per

[21] Our research into common response rates for random representative surveys of small business indicated that it was usually quite low: varying between 6-20%.
[22] This may have been partly explained by the fact that many of the business we had sent the questionnaires to had already closed down: 250 surveys were posted back to us in the first two weeks.
[23] *Small Business In Australia* (1997)

cent property and business services and CIRCIT data yielded 17 per cent; retail 17.6 per cent (ABS) compared to 21.4 per cent (CIRCIT); manufacturing comprised 10 per cent (ABS) compared to 13.8 per cent (CIRCIT). In New South Wales property and business Services is 20.47 per cent for the ABS study and 17.4 per cent for CIRCIT's sample; manufacturers comprise 8.6 per cent (ABS) and 12.5 per cent (CIRCIT).

However the CIRCIT sample is slightly over-represented in most states in retail, wholesale and manufacturing and under-represented in construction. The most extreme example is in NSW where retail comprises 16.6 per cent of ABS's businesses and 26.4 per cent of CIRCIT's businesses. In Victoria ABS data suggests construction comprises 17.6 per cent compared with CIRCIT's 11.9 per cent.

The CIRCIT sample is under-representative for very small businesses: the non-agricultural sample comprises 55.7 per cent of very small businesses (less than 5 employees) in contrast to 83 per cent in the ABS data.

Table 15: Comparison of the CIRCIT sample with ABS and Yellow Pages samples

Small business characteristics	CIRCIT sample (N=675)	ABS[a]	Yellow Pages[b] (N = 1200)
Sector			
Non-agricultural	90.2%	89.6%	100%
Agricultural	9.8%	10.4%	0%
State (as % of non-agricultural)			
Victoria	27.2%	24.5%	19.3%*
New South Wales	24.6%	33.3%	19.5%
Queensland	19.0%	19.0%	15.3%
Western Australia	12.8%	10.8%	12.5%
South Australia	10.3%	7.9%	11.0%
Tasmania	3.9%	2.3%	8.1%
Northern Territory	1.0%	0.71%	7.1%
ACT	1.2%	1.4%	7.2%
Industry division (as % of non-agricultural)			
Mining	1.3%	0.3%	0%*
Manufacturing	13.5%	8.6%	21.2%
Construction	15.3%	17.6%	16.5%
Wholesale	10.3%	5.9%	
Retail	23.5%	17.6%	19.3%
Transport/storage	4.4%	5.6%	10.6%
Finance & insurance	1.3%	2.0%	
Property & business	15.8%	18.4%	18.1%
Health and community services	5.6%	7.5%	
Cultural & recreational services	2.5%	3.4%	
Personal & other services	4.2%	6.5%	14.1%
Accommodation, cafes and restaurants	1.3%	3.1%	
Education	1.0%	2.0%	
No of employees (% of non-agricultural):			
0-4	55.7%	83.0%	68.5%**
5-19	41.5%		31.5%
20-100	2.8%		
Geographical Distribution			
Urban	71.8%		79.3%
Rural and regional businesses	28.2% in “rural or remote region”		20.7%***

a Australian Bureau of Statistics. (1998). *Small Business in Australia 1997*. Catalogue No. 1321.0. Canberra: Australian Government Publishing Service.
b Yellow Pages Australia. (April, 1998). *Survey of e-commerce in Australian small and medium businesses*. Small Business Index. Melbourne: Telstra Corporation Limited.
*The Yellow Pages sample data for state and industry division includes 600 medium businesses in addition to the 1200 small businesses in the sample. Regarding Yellow Pages industry divisions, some are grouped with others so that these figures are for wholesale/retail, finance/property/business services, recreational/personal/business services, transport/storage, building/construction and manufacturing
**The Yellow Pages report indicates employee number for 1-4 employees: proprietor is included if he/she is part of workforce. Sample data does not provide a figure for businesses with no employees.
*** The Yellow Pages sample data for metro versus non-metro composition includes 600 medium businesses in addition to the 1200 small businesses in the sample.

Access to equipment and Internet services

The CIRCIT figures for ownership and presence of technologies and services are higher than the latest Yellow Pages survey[24]. This may be because:

- The wording of the questionnaire implied we wanted to know only from those with online services. The opening paragraph in the questionnaire states ..."We are interested in understanding how people in small business communicate and use online services in their main business...". Any number of non-computerised businesses may have concluded that the questionnaire is not relevant to their operation and would therefore be much less likely to respond[25].
- Our sample has more non-micro businesses.
- Our sample was targeted to represent all 14 small business sectors as per ANZSIC code (including agriculture) unlike the Yellow Pages data which targets nine industry sectors. The Yellow Pages sample does not include manufacturing businesses with up to 100 employees, which the ABS define as small business. Furthermore our sample has somewhat higher levels of retail, wholesale, manufacturing (all industry divisions with known high levels of ownership) than the ABS and less construction.
- Some questions (e.g. modem ownership, PABX phone system) may have yielded a lower response rate with 10 to 16 per cent not answering perhaps because they did not know what the technology is or whether they have it.
- There is a five month gap between when the CIRCIT survey data was collected (May 1998) and the latest Yellow Pages data (January/February 1998).

[24] Yellow Pages Australia. (April, 1998). *Survey of e-commerce in Australian small and medium businesses*. Small Business Index. Melbourne: Telstra Corporation Limited

[25] We thank David McGeachie of Australian Bureau of Statistics for his insights here.

Table 16: Comparison of the access to equipment and Internet services (CIRCIT and Yellow Pages samples)

	CIRCIT	Yellow Pages [a]
Equipment		
Computer	90%	75%
Modem	74%	42%
Internet services		
Internet access	55%	34%
Email	50%	Not asked
Home page	21%	12%

a Yellow Pages Australia. (April, 1998). *Survey of e-commerce in Australian small and medium businesses.* Small Business Index. Melbourne: Telstra Corporation Limited.

Data Analysis

The Statistics Package for the Social Sciences (SPSS) was used to analyse the data.

Some non-agricultural industry divisions were recoded into similar groupings to the Yellow Pages[26] categories at the analysis stage, as the numbers were too small. For example financial services was regrouped with business services; personal services, cultural and recreational services and accommodation, cafes and restaurants were regrouped together. Health, community services and education were regrouped together. States/territories were also recoded for analysis as there were too few numbers in the smaller states: Tasmania, ACT and NT were regrouped together.

To produce the findings presented in Section 3 of this report, respondents were asked to rate the importance of a range of communication channels when they carry out business activities. Respondents were asked to rate each communication channel listed from 1 (no importance) to 5 (very important) for each activity, as shown in the questionnaire attached. To understand the relative importance of each channel for each activity (shown in Table 8), the responses of four and five were totalled.

Where bivariate analysis was conducted, the measures of association were chosen according to the type of variables involved: when nominal variables were used, the Cramer's V statistic was chosen to analyse the strength of association.

Recognising the limits of the sample, we used the statistical significance test to identify the existence of relationships between variables in the sample. Statistical significance was gauged by examining the approximate significance level generated next to the value for measure of association. The 5 per cent level of error was used. Those bivariate relationships identified for discussion in the publication were those which were statistically significant at the 5 per cent level of error.

[26] Yellow Pages Australia. (April, 1998). *Survey of e-commerce in Australian small and medium businesses*. Small Business Index. Melbourne: Telstra Corporation Limited.

Communication Choices for Small Business

We are interested in understanding how people in small business communicate and use online services in their *main* business. We are particularly interested in how you communicate with your customers, suppliers and government for different activities.

Section One: Purchase and Use of Online Services

1. *Has your business purchased or set up any of the following communication equipment or services? Please circle the appropriate number for each item listed.*

	Yes	**No**	**No, but likely to purchase by year 2000**
Fax	1	2	3
Mobile phone	1	2	3
Cordless phone	1	2	3
PABX phone system such as Commander or B24	1	2	3
Computer (PC)	1	2	3
Modem	1	2	3
Online ordering system on your home page	1	2	3
EFTPOS service	1	2	3

2. *Does your business have electronic mail (email)? Please circle the appropriate number then follow the instructions on the right.*

Yes	1	Read the instructions in bold then go to Question 3
No but likely to set up by 2000	2	Read the instructions in bold then go to Question 3
No	3	Read the instructions in bold then go straight to Question 4

The following questions relate to the reasons for choosing various communication services. Please rate the importance of each of the items listed on a scale from 1-5, with 1 representing 'not important' or 'not applicable' and 5 representing 'very important'.
For example, in Question 3 if an item listed is a very important influence in your decision to set up email now or by year 2000, circle 5. If it is not at all important, circle 1. If it is somewhat important in your decision you could rate it between 2 and 4.

3. *Why has (or will) your business set up email?*

It is a low cost communication medium	1 2 3 4 5
It came with the WWW (Internet) access	1 2 3 4 5
It is an instant way of communicating	1 2 3 4 5
Many of our present and potential customers are overseas	1 2 3 4 5
We can send/exchange documents or files	1 2 3 4 5
Suppliers prefer communicating by email	1 2 3 4 5
A significant number of our customers have email	1 2 3 4 5
We already use email at home	1 2 3 4 5
We like experimenting with new technologies	1 2 3 4 5
Other. Please specify	1 2 3 4 5

____

Now please go straight to question 5.

4. *Why has your business not set up email?*

We do not know what it will do for the business	1 2 3 4 5
The service is too expensive	1 2 3 4 5
We do not know how to use it	1 2 3 4 5
Most of our suppliers do not have email	1 2 3 4 5
We find new technology difficult to deal with.	1 2 3 4 5
Very few of our customers use email	1 2 3 4 5
We used it in the past but did not find it useful	1 2 3 4 5
Our management does not use email	1 2 3 4 5
Other. Please specify	1 2 3 4 5

____

5. *Does your business have its own home page on the Internet?*

Yes	1	Go to Question 6
No but likely to set it up by 2000	2	Go to Question 6
No	3	Go straight to Question 7

6. *Why has (or will) your business set up its own home page on the Internet?*

Please rate each item from 1-5. 1 represents 'not important' or 'not applicable' and 5 represents 'very important'.

Our competitors have a home page	1 2 3 4 5
It is a cheaper way of updating information about the business	1 2 3 4 5
We had the expertise to set it up	1 2 3 4 5
Did a cost benefits analysis of information provision, payments and/or delivery	1 2 3 4 5
To reach customers nationally and internationally	1 2 3 4 5
To enable Internet sales and orders	1 2 3 4 5
Ensuring business survival in an age of electronic commerce	1 2 3 4 5
It shows our business is innovative	1 2 3 4 5
We feared we would not have a business in the next five years otherwise	1 2 3 4 5
Other. Please specify	1 2 3 4 5

____

Now please go straight to Section Two.

7. *Why has your business not set up its own home page on the Internet?*

Please rate each item from 1-5. 1 represents 'not important' or 'not applicable' and 5 represents 'very important'.

It is too time-consuming to set up/maintain	1 2 3 4 5
We do not know how it works or relates to our business	1 2 3 4 5
We don't have the skills to set it up	1 2 3 4 5
It is too costly to set up	1 2 3 4 5
We do not have the required equipment	1 2 3 4 5
We fear our designs or products will be copied	1 2 3 4 5
We do not want to expand our customer base	1 2 3 4 5
Our customers do not use the Internet	1 2 3 4 5
We had a home page but did not find it of value	1 2 3 4 5
New technologies are generally overrated and inefficient	1 2 3 4 5
Other. Please specify	1 2 3 4 5

____

Section Two: Mixing Communication Channels

We want to understand the ways you communicate with different groups such as customers and suppliers/service providers.
For all of the following questions please rate from 1-5 the importance of each of the items listed. 1 represents 'not important' or 'not applicable' and 5 represents 'very important'.

Communicating with Customers

8. *To promote or market your business, how do you communicate with customers?*

Face-to-face	1 2 3 4 5
Telephone	1 2 3 4 5
Printed material mailed (e.g. brochures, Yellow Pages, newspaper)	1 2 3 4 5
Printed material faxed	1 2 3 4 5
Television advertising	1 2 3 4 5
Your own home page	1 2 3 4 5
Other Internet channels	1 2 3 4 5

9. *How do you receive orders for goods or services?*

Face-to-face	1 2 3 4 5
Phone	1 2 3 4 5
Mail	1 2 3 4 5
Fax	1 2 3 4 5
Email	1 2 3 4 5
Online ordering system on home page	1 2 3 4 5

10. *How do your customers make their payments to you?*

Cash	1 2 3 4 5
Cheque over the counter	1 2 3 4 5
Cheque by mail	1 2 3 4 5
Credit card over the counter	1 2 3 4 5
Credit card number over the phone	1 2 3 4 5
Credit card number by fax	1 2 3 4 5
Credit card over the Internet	1 2 3 4 5
EFTPOS	1 2 3 4 5
Direct credit	1 2 3 4 5

Communicating with Suppliers and/or Service Providers

11. *How do you order goods and services from suppliers or service providers?*

Face-to-face	1 2 3 4 5
Telephone	1 2 3 4 5
Mail	1 2 3 4 5
Fax	1 2 3 4 5
Email	1 2 3 4 5
Modem to modem	1 2 3 4 5
Online ordering system on home page	1 2 3 4 5

12. *How do you pay for goods and services?*

Cash	1 2 3 4 5
Cheque (handed over personally)	1 2 3 4 5
Cheque (by mail)	1 2 3 4 5
Credit card over the counter	1 2 3 4 5
Credit card number over the phone	1 2 3 4 5
Credit card number by fax	1 2 3 4 5
Credit card (encrypted) over Internet	1 2 3 4 5
Credit card (unencrypted) over the Internet	1 2 3 4 5
EFTPOS	1 2 3 4 5
Direct debit	1 2 3 4 5
Telephone payments from bank account	1 2 3 4 5

If your business *has not* made payments by credit card over the Internet please go on to Question 13.
If your business *has* made payments by credit card over the Internet go straight to the section *Communicating within the Business.*

13. Why has your business not made payments by credit card on the Internet?

Please rate each item from 1-5. 1 represents 'not important' or 'not applicable' and 5 represents 'very important'.

We don't know enough about it to decide to use it	1 2 3 4 5
It is not secure	1 2 3 4 5
We are not comfortable with it	1 2 3 4 5
It does not provide an accounting record like cheque butts	1 2 3 4 5
The present methods work well	1 2 3 4 5
When there is an error with the transaction it is too much trouble to chase up………………….	1 2 3 4 5
Other. Please specify ____________________	1 2 3 4 5

Communicating within the Business

If there are no employees in the business please go straight to Question 16.

14. How do you communicate within the business (with onsite or remote workers) when creating the product/service?

Please rate from 1-5 the importance of each item listed. 1 represents 'not important' or 'not applicable' and 5 represents 'very important'.

Face-to-face	1 2 3 4 5
Telephone	1 2 3 4 5
Fax	1 2 3 4 5
Email	1 2 3 4 5
Paper letter	1 2 3 4 5

15. What is the main way you pay employees?

Cash	1 2 3 4 5
Cheque	1 2 3 4 5
Direct debit	1 2 3 4 5

16. How do you get information on goods and services for your business?

Face-to-face	1 2 3 4 5
Telephone	1 2 3 4 5
Print material received by mail (e.g. Yellow Pages, journals and newsletters)	1 2 3 4 5
Fax	1 2 3 4 5
Email	1 2 3 4 5
WWW searching	1 2 3 4 5

17. Has your business set up online banking through your PC (computer) ? Please circle the appropriate number.

Yes	1	Go straight to Question 19
No but likely to set up by 2000	2	Go straight to Question 19
No	3	Go to Question 18

18. Why have you not set up PC banking?

Please rate from 1-5 the importance of each of the following reasons. (1 represents 'not important' or 'not applicable' and 5 represents 'very important').

We do not know enough about it to make a decision to use it	1 2 3 4 5
Our accounting software is not compatible	1 2 3 4 5
The business is too small to bother with it	1 2 3 4 5
We did not believe it would make the business more efficient	1 2 3 4 5
We go to the branch frequently anyway	1 2 3 4 5
The bank faxes us all the information we need	1 2 3 4 5
We worry about the security of the information	1 2 3 4 5
Other. Please specify	1 2 3 4 5

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19. Has your business set up phone banking? Please circle the appropriate number.

Yes	1	Go straight to Question 21
No but likely to set up by year 2000	2	Go straight to Question 21
No	3	Go to Question 20

20. Why have you not set up phone banking?

Please rate from 1-5 the importance of each of the following reasons. 1 represents 'not important' or 'not applicable' and 5 represents 'very important'.

We do not know enough about it to make a decision to use it	1 2 3 4 5
We go to the branch frequently anyway	1 2 3 4 5
The bank faxes us all the information we need	1 2 3 4 5
We did not believe it would make the business more efficient	1 2 3 4 5
We worry about the security of the information	1 2 3 4 5
The bank has not told me/us about it	1 2 3 4 5
The business is too small to bother with it	1 2 3 4 5
Other. Please specify	1 2 3 4 5

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21. Has your business made payments by direct debit?

Yes	1	Go straight to Section Three
No	2	Go to Question 22

22. Why does your business not make any payments by direct debit?

Please rate from 1-5 the importance of each of the following reasons. (1 represents 'not important' or 'not applicable' and 5 represents 'very important').

It is not reliable	1 2 3 4 5
We feel we have more control with existing payment methods	1 2 3 4 5
We track our money through cheque butts	1 2 3 4 5
When there is an error with the transaction it is too much trouble to chase up	1 2 3 4 5
We cannot guarantee our bank balance will always be adequate	1 2 3 4 5
It is not secure	1 2 3 4 5
We do not know enough about it to decide to use it	1 2 3 4 5
Our business is too small to bother with it	1 2 3 4 5
Other. Please specify	1 2 3 4 5

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Section Three: What Factors Influence Choice?

We would like to know why business people choose different communications channels for different activities.
For each question in this section please rate from 1-5 the importance of each of the items listed. 1 represents 'not important' or 'not applicable' and 5 represents 'very important'.

23. To promote or market your business, which of the following factors are very important?

Establishing a personal relationship with the customers	1 2 3 4 5
Giving up-to-date information	1 2 3 4 5
Reaching the largest number of customers	1 2 3 4 5
Doing it at the minimum cost	1 2 3 4 5
Other. Please specify	1 2 3 4 5

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24. When seeking information about goods and services for your business, which of the following factors are very important?

Accurate information	1 2 3 4 5
Timely information	1 2 3 4 5
Immediate access	1 2 3 4 5
Ability to interact with providers	1 2 3 4 5
Sense of personal interaction	1 2 3 4 5
Other. Please specify	1 2 3 4 5

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25. *When paying for a product or service for the business, which of the following factors are very important?*

Having an accessible record of payment	1 2 3 4 5
Being sure that the payment has been received	1 2 3 4 5
Low cost of the payment transaction	1 2 3 4 5
Speed of payment	1 2 3 4 5
Security of payment	1 2 3 4 5
Comfort with the mode of payment	1 2 3 4 5
Other. Please specify	1 2 3 4 5

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Section Four: About Your Business

We would like to know about your business to see how different types of businesses use different communication methods and services.

26. *Please tick any of the following items which are true. Your business:*

- ❑ Operates mainly from home
- ❑ Is situated in a rural and remote region
- ❑ Operates only via the Internet (no physical shop)
- ❑ Is a physical shop with Internet access
- ❑ Operates only as a physical shop

27. *For how many years has the business been established?*

________________ years

28. *How many employees does the business have? If there are no employees put 0.*

________________ employees

29. *In which industry sector is your business **primarily** involved? Please tick one box only.*

- ❑ 1 Manufacturing
- ❑ 2 Retail
- ❑ 3 Wholesale
- ❑ 4 Business Services and Property (includes IT)
- ❑ 5 Construction
- ❑ 6 Transport/storage
- ❑ 7 Finance and insurance
- ❑ 8 Accommodation, cafes and restaurants
- ❑ 9 Personal and other services
- ❑ 10 Mining
- ❑ 11 Personal and other services
- ❑ 12 Cultural and recreational services….(see next page)
- ❑ 13 Education
- ❑ 14 Health and community services
- ❑ 15 Agriculture

30. *What is the main activity of your business?*

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31. *What is the firm's approximate annual turnover?*

☐ 1 Less than $100,000	☐ 4 $401,000-$700,000
☐ 2 $101,000-$200,000	☐ 5 $701,000-$1,500,000
☐ 3 $201,000-$400,000	☐ 6 More than $1,500,000

If your business does not have Internet access please skip the next question and go to Question 33.

32. *If your business has access to the Internet please tick any of the following that apply to your business.*

- ❑ Helped us reach new markets
- ❑ Increased our profitability
- ❑ Improved our quality of product or service
- ❑ Improved our responsiveness to customers
- ❑ Improved responsiveness to suppliers/service providers
- ❑ Improved efficiency within the business

33. *Please indicate an approximate value for **purchases** or likely purchases by your business over the Internet (ordered and/or paid using the Internet) for the following periods. If your business has not bought or does not plan to buy anything on the Internet put N/A*

1997 $_______
1998 $_______
1999 $_______
2000 $_______

34. *Please indicate an approximate value for **sales** or likely sales by your business over the Internet (goods/services ordered and/or paid using the Internet) for the following periods. If your business has not sold or does not plan to sell anything on the Internet put N/A.*

1997 $_______
1998 $_______
1999 $_______
2000 $_______

35. *Please estimate the percentage value of the goods and services sold over the Internet in 1997 bought by the following groups. (If you have not sold anything on the Internet put N/A).*

Other businesses ______%
Consumers ______%
Government ______%

We would like to know about the person running the business (the chief decision maker) to see which characteristics are related to the use of online services. Please tick the appropriate boxes below.

36. *The chief decision maker:*

- ❑ *Is from a non-English speaking background*
- ❑ *Was born overseas*
- ❑ Is between 30 and 50 years old
- ❑ Is less than 30 years old
- ❑ Is more than 50 years old
- ❑ Is female

37. *What is the chief decision maker's highest completed educational qualification?*

- ❑ Completed highest year of secondary school
- ❑ [2]Gained vocational qualifications
- ❑ [3]Has degree or diploma
- ❑ [4]Did not complete secondary school

38. *How did the chief decision maker become aware of the Internet and services delivered over the Internet?*

Please rate the importance of the following factors from 1-5. (1 represents 'not important' or 'not applicable' and 5 represents 'very important').

Media	1 2 3 4 5
Family/friends	1 2 3 4 5
Educational institution	1 2 3 4 5
Within the work place	1 2 3 4 5
Industry associations	1 2 3 4 5

39. *Please rate the chief decision maker's level of computer skills from 1-5, with 5 meaning excellent skills and 1 meaning no skills.*

Word processing	1 2 3 4 5
Internet skills	1 2 3 4 5

40. *How did the chief decision maker gain skills in word processing and/or the Internet? (Please tick as many boxes as applicable.)*

	Word processing	**Internet skills**
Self taught		
Through partner/family who have skills		
Through friends who have skills		
School		
TAFE		
University		
On the job training		
Council of Adult Education courses		
Industry association courses		
Community learning centres		

Section Five: Dealing with Government

We would like to know the extent and ways your business deals with government now and how this will change in future.

41. *Please tick the relevant activities for your business and the way you conduct them now. Please tick all relevant boxes.*

Service	Communication Channel				
	Face-to-face	**Phone**	**Fax**	**Mail**	**Email/ WWW/ Electronic lodgement**
Business Registration					
Income tax return					
Sales tax					
Vehicle registration					
Work cover					
Information e.g. government regulations or service available					

42. *Would you like to do any of the following government-related activities using email and the WWW if it were possible? Please tick the appropriate box(es).*

Business registration

❑ Business registration

❑ Sales tax

❑ Vehicle Registration

❑ Work Cover

❑ Obtaining information e.g. regulations, services available.

❑ Other. Please specify ________________________

43. *What government policies do you think will help small business sell goods on the Internet? Please rate in importance from 1-5. If you are uncertain or do not know if the policy is important circle U.*

Government to buy goods on the Internet from Australian small business	1 2 3 4 5 U
Ensuring security of payments for customers	1 2 3 4 5 U
Legislation to ensure merchant risk of Internet payments is capped	1 2 3 4 5 U
Promoting an Australian online brand to give more comfort to international customers	1 2 3 4 5 U
Establishing an Online Ombudsman to deal with complaints and redress	1 2 3 4 5 U
Cheaper Internet access	1 2 3 4 5 U
Help foster uniform legislation and standards regarding electronic commerce across the Asia Pacific region	1 2 3 4 5 U
A well understood privacy regime for customer data	1 2 3 4 5 U
No tax on Internet exports	1 2 3 4 5 U
Training for small businesses to set up online businesses	1 2 3 4 5 U

Other. Please specify

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Thank you for your participation.

Please tick *any* box which applies to you.

❑ I would like to be in the draw to win communication services to the value of $400.

❑ I would like to receive a free summary of the survey findings.

❑ I would be willing to be contacted by CIRCIT in future about the possibility of further participation.

If you ticked any of the above boxes please insert your contact details.

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About the Authors

Claudia Slegers is an Associate Research Fellow at CIRCIT. Claudia has been researching in the area *The Use of Information and Communication Services,* particularly in the residential and business sectors. Claudia is currently exploring the link between the use of communication services and the design of services, and is co-ordinating the CIRCIT 1998 Policy Forum *Linking Design and Development of Information and Communication Services to Effective Use*.

Claudia’s publications include: *Trust and Electronic Money*, CIRCIT Policy Research Paper No. 42 (with Supriya Singh); *The Story of Small Business and Electronic Commerce*, CIRCIT Policy Research Paper No. 43 (with Supriya Singh); *Evaluation for Chronic Illness Alliance On-line Project* (with Sarah Miller); and *Passing First Year University: Perceptions of Key Stake-holders* (with John Glass, Patricia McLean, and Judy Maxwell) for the Department of Access and Preparatory Learning, Royal Melbourne Institute of Technology and University of Melbourne.

Claudia's interest in the connections between language, meaning and the use of new communication services is being explored through an MA Preliminary in Linguistics at La Trobe University.

Claudia has a Bachelor of Arts Degree in Social Sciences and a Graduate Diploma in Social Survey and Research Techniques from La Trobe University. Claudia has been a consultant for NUD· IST qualitative analysis software (Non-numerical Unstructured Data Indexing Searching and Theorising) at Qualitative Solutions and Research, Melbourne.

Dr Supriya Singh is a Senior Research Fellow at CIRCIT at RMIT. She holds a Ph.D in Sociology and Anthropology from La Trobe University. She was awarded the Jean Martin Award by the Australian Sociological Association for the best Social Science thesis in Australia for 1993-95. The thesis was published by Allen and Unwin in 1997 as *Marriage Money: The Social Shaping of Money in Marriage and Banking.* This follows her previous books on banking history in Malaysia and Australia, *Bank Negara Malaysia: The First 25 Years, 1959-1984* (Bank Negara Malaysia: 1984) and *The Bankers* (Allen and Unwin: 1991) and a study of Simunul Bajaus in Borneo, *On the Sulu Sea* (Angsana Publications: 1984).

Dr Singh’s work at CIRCIT has focused on studying the use of information and communication technologies, with a special emphasis on electronic money and electronic commerce. From 1993 - 1998, Dr Singh represented consumers on the Australian Payments System Council which advised the Federal Treasurer about developments in the payments system.

John Hall (BA, DipEd, BEdMonash, MedMelb, GradDipBusSwinburne) is Senior Lecturer in Marketing at Victoria University and is also a Director of Australian Total Quality Research. John teaches marketing research and strategic marketing. John is currently conducting his Ph.D research in consumer behaviour in the wine industry.

John's research interests include consumer behaviour, international marketing, application, development and use of market research techniques, and marketing education. John's publications include *Marketing Research in Australia* (1997). John has participated in numerous consultancies for Federal, State and local governments as well as numerous businesses.