

Online Community Supporting Trading Functions in an Online Auction Website

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Abstract

Online auctions have been taking place along the lines of traditional auctions. This has been made possible by the internet and web technology. Online communities associated with the online auction websites are thought to be a critical success factor. It is therefore important to identify how an online community supports an online auction website.

The objectives of this research are to identify the value of the different activities and needs of the online community in online auction websites, and also the facilities provided by the online auction website to support the needs of the community.

This dissertation looks at Trade Me as a local example of an online auction website. An initial observation of this New Zealand online auction website was first conducted to find out the extent of Trade Me's community and the facilities provided by Trade Me to support its community. This information, together with the results from a literature search, was then used to create research questions for an online survey posted on Trade Me's discussion board. There were 224 responses to the online survey.

The dataset shows that about three quarters of the respondents are females and more than half (56%) are from the younger age group (34 or less). The dataset also shows that respondents have a high need to interact within Trade Me. Further, the dataset finds that various activities are performed by users before and after a trade and that the attitudes of users affect their feedback as traders.

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1 Introduction

Online communities have been used as strategic tools by companies (Larsen, 2004). An online auction website can only achieve an advantage as a business by also having business customers as a community online. Having access to an online community is one of the success factors of successful online auction websites (Lin & Joyce, 2004). Large international (eBay, Amazon, Yahoo auctions) and local New Zealand (Trade Me) online auction websites focus their competitive strategy on their online community.

Technical platforms and technologies are used by online auction websites to support their communities. Trade Me Ltd runs New Zealand's largest online auction website (Trade Me, 2007). It uses discussion boards and provides access to the community websites. Many past studies of online auctions have concentrated on bidding behaviors, feedback rating mechanisms and trust. This research evaluates the influence of an online community on trading in Trade Me.

A literature review was conducted to gain background knowledge on the existing field. The study focuses only on Trade Me as a case study. Data collection for this study was done using online survey which was conducted on Trade Me's discussion board.

1.1 Research description

While many studies have focused on online communities as a topic, this study focuses on online communities in the context of online auctions. The context of this research is the online community supporting trading functions in an online auction website.

The focus is to carry out a participative observer research approach to Trade Me as a New Zealand online auction website. Communities in the internet may exist in different infrastructures (Stanoevska-Slabeva & Schmid, 2001), and one has been formed as part of the Trade Me online auction website.

Reasons for choosing Trade Me as a case study are:

- Trade Me users comprise almost 40% of New Zealand's population (Trade Me, 2007).
- Trade Me is ranked first by Nielsen NetRatings (2007) as the website most visited by New Zealanders.
- Many of these users have formed themselves into a community within the website.
- Not only does the website serve as an online auction website, but it also provides a facility for users as a community to "collaborate" (Zacharia, Moukas, & Maes, 1999).

The geographic area of this research is New Zealand.

1.2 Research questions

The factor that this researcher wants to understand at the end of this project is:
How does the online community support Trade Me as an online auction website?

The question can further be broken down to:

1. What kind of activities do users of Trade Me's website engage in?
2. How does the discussion board help with trading on Trade Me?
3. What value do the other community sites have for Trade Me's customers?
4. What activities do users engage in before and after a trade?
5. How do gender differences affect trading on Trade Me?
6. What are the differences in activities of the younger and older age groups on Trade Me?

2 Literature review

2.1 Introduction

This chapter reviews a range of literature to provide:

- background knowledge for the study
- an aid to understanding the findings of the research
- a base to develop further discussion by reflecting on the findings in the literature.

To obtain the background for this research, a literature search was conducted early in the research phase. Following each of the main literature themes, different studies were identified that could contribute to the context of this research.

As shown in Table 1, the literature related to the research topic can be categorised according to three main themes: internet demographics, online communities and online auctions.

Internet demographics	Online communities	Online auctions
Astleitner & Steinberg (2005).	Barnatt (1998).	Akula & Menasce (2004)
Bhatnagar et al. (2000).	Bostock & Lizhi (2005).	Ba (2001).
Boneva, Kraut & Frohlich (2001).	Caspi et al. (2006).	Bapna, R., Goes, P., & Gupta, A (2001)
Bonisteel (2000).	Dawson (2006).	Barnes & Vidgen (2001).
Comscore (2006).	Erickson et al. (2002).	Bolton et al. (2005).
Dai & Cude (2004).	Flavian & Guinaliu (2005).	Boyd (2002).
Dholakia & Kshetri (2002).	Gopal et al. (2006).	Cameron & Galloway (2005).
E-government (2004).	Guiller & Durndell (2006).	Chong et al. (2003).
Emarketer (2005)	Guillet et al. (2006).	Doyle & Baska (2002)
Esearch (1999).	Hamman (2001).	Fairfax. (2006).
Fallows (2005).	Koh & Kim (2004).	Gavish & Tucci (2006).
GVU (1998).	Kraft, et al. (2000).	Gillian, Malhotra, & Murnighan (2005).
Jackson et al. (2001).	Larsen (2004).	Harris Interactive. (2001).
Joines et al. (2003).	Maclaran & Catterall (2002).	

Li, Kuo & Russel (1999).	Marathe (2002).	Khopkar, Li & Resnick (2005).
Nielsen NetRatings (2007).	Masters & Oberprieler (2004).	Kollock (1999).
NTIA (2001).	Pitta & Fowler (2005).	Lee, Im & Lee (2000).
SciVisum (2006).	Preece (2001).	Lin & Joyce (2004).
Sorce, Perotti & Widrick (2005).	Rafaeli & Noy (2002).	Lucking-Reiley et al. (2006).
Statistics New Zealand (2006).	Rafaeli & Noy (2006).	Malaga (2001).
	Scott & Johnson (2005).	Mathews (2003).
	Stanoevska-Slabeva & Schmid (2000).	Myers (2003).
	Stanoevska-Slabeva & Schmid (2001).	Peters & Bodkin (2007).
	Stern & Stafford (2006).	Schneiderman (2000).
	Wenger (2001).	Steiner (2002).
	Williamson (2005).	Steiner (2006).
		Trade Me (2007).
		Wang & Chiu (2005).
		Wolfenbarger & Gilly (2001).
		Wurman (2003).
		Yahoo! Finance (2007).
		Zacharia et al. (1999).
		Zhang (2006).

Table 1: Themes in the Literature

2.1 Internet demographics

Lin and Joyce (2004) describe how online auctions emerged in the context of e-commerce and the internet. Li, Kuo, and Russel (1999) identify different online transactional technologies as “channels”. Channels involve marketing activities as well as the process of ordering, online payment, and physical exchange of services and products between sellers and buyers. Online auctions and other online stores are examples of channels. Dai and Cude (2004) group transaction-based activities in the internet into three: online shopping, online financial transactions, and online auctions. Unlike the other two categories where users can only simply purchase and transact online, online auctions allow users not only to shop online (buy now), but also to be engaged in an auction situation similar to the traditional auction (Lin & Joyce, 2004). Different studies (Bhatnagar, Misra, & Rao, 2000; Boneva, Kraut, & Frochlich, 2001; Dai & Cude, 2004; Jackson, Ervin, Gardner, & Schmitt, 2001) find that age and gender are two demographic elements that play a significant role in online auctions, particularly affecting online buying behavior.

Table 2 (below) shows the usage of internet by males and females in different countries in 2000.

	Male %	Female %	Source
Eastern Europe			
Bulgaria	67.0	33.0	Euromedia
Croatia	60.0	40.0	Euromedia
Bosnia and Herzegovina	66.7	33.3	Bilalic
Western Europe	75.0	25.0	ILO
	58.0	42.0	MMXI Europe
Denmark	64.0	36.0	MMXI Europe
Germany	55.0	45.0	Nielsen Net Rating
Ireland	60.0	40.0	Between
Italy	70.0	30.0	MMXI Europe
Spain	56.0	44.0	MMXI Europe
Sweden	60.9	39.1	Nielsen Net Rating ⁴
UK	57.0	43.0	MMXI Europe
USA	50.0	50.0	Nua
Latin America	62.0	38.0	ILO, Hafkins and Taggart (2001)
	60.0	40.0	E-Marketer
Argentina	57.0	43.0	E-Marketer
Brazil	56.7	43.3	E-Marketer
Mexico	58.0	42.0	E-Marketer
Asia	78.0	22.0	LA Times, Hafkins and Taggart (2001)
China	70.0	30.0	CNNIC
India	77.0	23.0	E-Marketer, Hafkins and Taggart (2001)
			ILO
Japan	82.0	18.0	Media Metrix
	67.0	33.0	ZD Net
Korea	58.0	42.0	Nielsen Net Rating
Singapore	57.6	42.4	
Russia	81.0	19.0	ILO
	62.0	38.0	Hafkins and Taggart (2001)
Oceania			
Australia	54.9	45.1	Nielsen Net Rating
New Zealand	52.3	47.7	Nielsen Net Rating
Middle East	94.0	6.0	Hafkins and Taggart (2001)

Table 2: Gender distribution of internet users worldwide (2000) (Dholakia & Kshetri, 2002)

According to Table 2, gender equity in year 2000 was only seen in America (50% for both females and males). Australia (54.9% males and 45.1% females) and New Zealand (52.3% males and 47.7% females) were two other countries that came close in gender equity in internet use. Gender distribution on the internet was extremely weighted in the Middle East (94.0% males and 6.0% females). A later study by E-government (2004) finds no significant gender differences in New Zealand, but only an age-related difference.

It needs to be noted that in the evolution of the internet, reliability and comparability of data, and factors such as language and government policies in different countries influence internet usage. In the past, males were found to use the internet more than females. Research by GVU (1998) shows that 66.4% of the world-wide internet users at that time were men and 33.6% were women. Since then the gender gap has narrowed and even reversed in some countries. “According to the latest statistics, there are more women online than men in the United States” (O’Leary, as cited in Dholakia & Kshetri, 2002).

A more recent study by eMarketer (2005) shows that since the year 2003 the number of females who use the internet in the United States has surpassed the number of males. The study predicts that the gender gap would widen steadily (from 4.5% in 2003 to 9.9% in 2008).

The result of the study can be seen in Table 3 below.

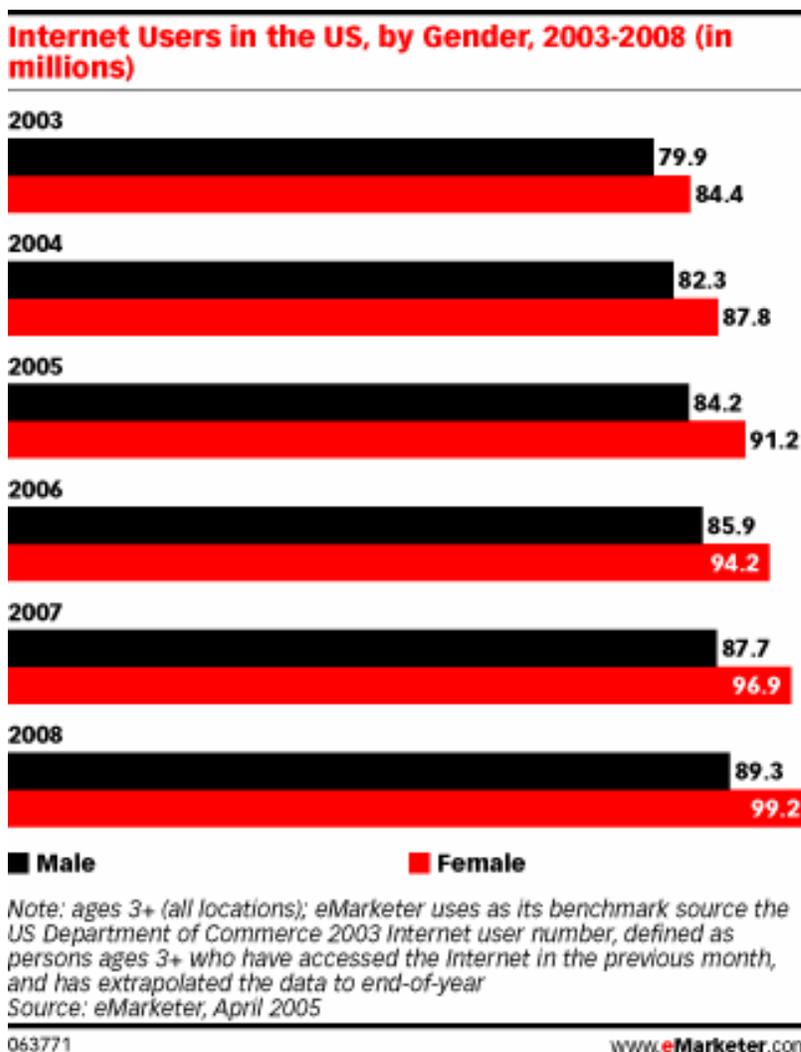


Table 3: Gender distribution of internet users in the United States (2005)
 (eMarketer, 2005)

Dholakia and Kshetri (2002) mention the concept of the “width and depth” of technology usage which can be used to further extend the analysis of gender differences at the household level. What the technology is used for and how particular functions are used still differ between males and females. With the growing number of females using the internet, more and more companies have adjusted their selling techniques to appeal women. These include personalised e-mails, word-of-mouth marketing, and relationship-building continuity programs (eMarketer, 2005). This may be the reason for the growing number of females using online shopping and online auctions, too.

A study by Ernst and Young (as cited in Bonisteel, 2000) shows the differences between males and females in products purchased online. In the year 2000, the overall difference between males and females varied depending on the products purchased online, however, males are more likely to purchase things online than females. The study also shows that males tend to spend more than females (Ernst & Young in Bonisteel, 2000). A higher proportion of males than females purchased online in all product groups other than children’s and women’s clothing. Males are also more likely to participate in online auctions than females (Bonisteel, 2000; Dai and Cude 2004; Dholakia & Kshetri, 2002; Esearch, 1999). A recent study by Dai and Cude (2004) supported the hypothesis that “males and younger persons had higher odds of participating in online auctions”. The result of the study can be seen in Table 4 (below).

Items purchased online	Male (%)	Female (%)
1. Children’s clothing	18	31
2. Men’s clothing	29	20
3. Women’s clothing	21	30
4. Computers	76	57
5. Small consumer electronics	44	26
6. Financial investment	14	6
7. Sporting goods	19	12
8. Airline reservations	34	24
9. Hotel reservations	26	18
10. Car rentals	18	10
11. Online auction participation	55	48
Mean:	32.2	25.6
12. Spend over \$500USD in the previous year (1999)	58	39

Table 4: Items purchased online by males and females (Ernst & Young in Bonisteel, 2000).

A later study on items purchased online by eMarketer (2005) identifies the top ten consumer products purchased online by females and males. The details can be seen in Tables 5 and 6 below.

Top 10 Consumer Product Categories among Females Worldwide, Ranked by Market Share, 2005 (% of spending)

	Female	Male
1. Skin care	92.5%	7.5%
2. Color cosmetics	85.5%	14.5%
3. Baby food	84.9%	15.1%
4. Depilatories	84.7%	15.3%
5. Hair care	84.5%	15.5%
6. Premium cosmetics	84.0%	16.0%
7. Fragrances	78.0%	22.0%
8. Medicated skin care	75.3%	24.7%
9. Baby care	75.2%	24.8%
10. Laundry care	74.7%	25.3%

Source: Euromonitor, September 2006

077053

www.eMarketer.com

Table 5: Top 10 consumer product categories among females worldwide in 2005 (eMarketer, 2005).

Top 10 Consumer Product Categories among Males Worldwide, Ranked by Market Share, 2005 (% of spending)

	Male	Female
1. Cigars	94.0%	6.0%
2. Camcorders	83.9%	16.1%
3. Beer	80.0%	20.0%
4. Men's grooming products	76.8%	23.2%
5. Video games	71.6%	28.4%
6. Spirits	68.2%	31.8%
7. Wine	65.8%	34.2%
8. DVD (including DVDR)	64.4%	35.6%
9. Small electrical appliances	64.3%	35.7%
10. Digital cameras	64.1%	35.9%

Source: Euromonitor, September 2006

077054

www.eMarketer.com

Table 6: Top 10 consumer product categories among males worldwide in 2005 (eMarketer, 2005).

While it is known that the type of product purchased in online shopping depends on gender, a more recent study by SciVisum (2006) supports the hypothesis that men still purchase more online than women do.

In addition, Fallows (2005) suggests that men spend more time online than women. The study by Fallows (2005) finds that more males are participants in most categories of internet activities, although females are catching up. Women are more likely to use e-mails to nurture relationships while men are more likely to use e-mails to communicate with various organisations. Fallows (2005) further finds that more men perform online transactions, participate in online auctions, look for wider topics of information online, and to use the internet for recreation.

A study by Sorce, Perotti and Widrick (2005) shows that the difference of buying behavior amongst age groups is affected heavily by different factors, namely:

- marketing approach of the business
- things being sold or auctioned
- experience with the internet
- pre-purchase search behavior.

Findings by Dai and Cude (2004) also suggest not only demographic variables are important in determining online buying behavior, but also the user's online experience.

One of the factors influencing different age groups to buy online is the type of item being sold or auctioned. Joines, Scherer, and Scheufele (2003) indicate that there are plenty of demographic studies on online auctions involving age and gender. Further, their study finds that age impacts on purchase behavior but not on search behavior and that older users purchased less than younger users. Another recent study by Sorce et al. (2005) find that "younger users were more likely to search online than older users", but of those searching online for particular product categories, older users were more likely to buy online. Sorce et al. (2005) state that "online buying varied by product category as predicted by age related interests". The results of the study are in Table 7 (below).

Product category	Percentage who have shopped for product online			Percentage who have Purchased product online		
	<30	30+	<i>p</i>	<30	30+	<i>p</i>
Age						
Travel services	81.7	60.7	***	52.7	44.1	
C/music	71.0	55.4	***	41.2	34.5	
Toys	39.7	45.2		19.1	30.5	**
Sporting goods	43.5	38.6		19.8	21.0	
Jewelry	35.9	18.1	***	6.1	6.2	
Virus detection software	29.8	17.0	***	10.7	8.5	
Insurance	30.5	12.5	***	4.6	0.0	***
Wine	19.8	16.5		1.5	3.4	
Vitamins	22.9	14.1	**	9.9	6.8	
Tires	12.2	9.0		0.8	2.3	
Massage services	11.5	2.3	***	3.1	0.0	**
Garden tools	3.8	10.2	**	0.0	2.8	*
Dishwasher	2.3	6.2		0.0	0.0	
Vacuum cleaners	4.5	4.8		0.5	0.0	
Pain relief medicine	4.6	4.0		0.8	0.6	
Security system	0.8	1.7		0.0	1.1	
Insect repellent	0.0	1.7		0.0	0.6	

Notes: *** 99 percent confidence, ** 95 percent confidence, * 90 percent confidence
Table: percentage of respondents who shop for and/or purchased each product online (*n* = 308 with 131 people under age 30 and 177 people 30 or older)

Table 7: Younger and older age groups who shop and buy online (Sorce et al., 2005).

Eight product categories show significant differences in shopping behaviour; in seven of these (travel services, music, toys, jewelry, virus detection software, insurance, and vitamins) the younger age group is more active and in one (garden tools) the older age group is more active. There are six product categories where significant differences in purchasing behaviour are found; in four of these (travel services, music, insurance, and massage services) the younger age group is more active and in two (toys and garden tools) the older age group is more active.

An earlier study by Esearch (1999) finds that online auctions seem to have a higher appeal (defined as participating in at least one online auction as a buyer or seller) to people aged 55 or more and the lowest appeal to people aged between 20 and 25. A fairly even appeal can be found for people aged between 25 and 54 (Esearch, 1999). A newer study by Comscore (2006) finds on the contrary that people aged 25 to 34 are 12 percent more likely than the average to participate in an online auction site and those aged 35 to 44 are 11 percent more likely than average to visit. This result is supported by findings from NTIA (2001) which show that online buying is more common for people aged 25 to 34 years old, followed by people aged 35 to 44 years old. A similar study by Dai and Cude (2004) also finds online auction users are younger, more experienced, and feel connected to the internet.

2.2 Online Communities

An online community as defined by Larsen (2004, p. 5) is a group of individuals with shared interests who interact using the internet to also form personal relationships. The online community as it is known by many is also known by other common names used in

different studies such as “virtual community” (Barnatt, 1998; Flavian & Guinaliu, 2005; Koh & Kim, 2004; Kraft, Pitsch, & Vetter, 2000), “internet community” (Pitta & Fowler, 2005, p. 265), “interpersonal life online” (Baym, 2002, as cited in Larsen, 2004), “professional virtual community” (Guillet, Crave, & Ladame, 2006, p.2) and “e-community” (Scott & Johnson, 2005, p.10).

The concept of a community has been around since 1848, while the concept of an online community has only started since the emergence of the internet (Hamman, 2001). The history of community is as follows:

Year	Description
1848	“Communities are based upon the shared goal of wealth accumulation among members of the same class”
1955	Studies on community emerged
1994	First definition of community in the Internet
1995	Internet community became a culture
1997	Emergence of electronic markets
1999	Failures of e-commerce site who did not embrace community as a part of it
2000	“More and more people are turning into web communities”

Table 8: History of community (Hamman, 2001)

Because the implementation of auctions in an online context has not changed the fact that an auction is a social process (Smith, 1989, as cited in Rafaeli & Noy, 2002), an online community is viewed as one of the critical factors affecting the success of online auctions (Lin & Joyce, 2004, p. 73).

Marathe (2002, p.4) indicates that a community in its online form differs from its traditional form. The online community delivers value rapidly by providing multiple channels of interaction. While some e-commerce websites only provide a single communication channel between the site and the users, the existence of online communities in e-commerce allow for communication channels between users too. Information on products and services can then be easily shared among the users. Despite the different purposes an online community may have, an online community by itself attracts people, provides useful feedback to the infrastructure it supports, increases possible supply and demand relations, and builds barriers to new entry (Marathe, 2002).

Kozinets (2000, as cited in Maclaran & Catterall, 2002) categorises different ways in which online communities may interact on the internet. They are discussion boards, rings, lists, dungeons, chat and rooms. Larsen (2004) further provides a definition for each as shown in Table 9 (below):

Structure	Description
Boards	Boards are electronic bulletin boards such as discussion boards, UseNets and newsgroups.
Rings	Rings are web pages that are linked together
Lists	Lists are e-mailing lists that people subscribe to, where they can interact with others about a topic of mutual interest. A newsletter is considered to be a list.
Dungeons	Dungeons are themed virtual locations in which interactions are structured by role-playing rules.
Chat rooms	Chat rooms are un-themed virtual locations loosely organized around common interests.

Table 9: Description of online community structures (Larsen, 2004, p. 8).

Boards, rings, and lists are considered as asynchronous and time-delayed communication whereas dungeons and chat rooms are synchronous and real-time communication (Maclaran & Catterall, 2002, p.320). Williamson (2003) finds that there are further issues which may also contribute to success in the infrastructure that the online community supports, as follows:

1. Access–“Not simply access that was important but that the immediacy of access was also an issue in terms of fully utilizing the potential of ICT for both personal and community activities” (Williamson, 2005, p.5).
2. Planning– the idea of structuring an online community because there is no one-size-fits-all solution. Online community provides a form of knowledge base (Williamson, 2005, p.5).
3. Partnership–“Where communities can work together, otherwise unavailable benefits and economies of scale can be realized” (Williamson, 2005, p.6).

Preece (2001) also identifies technical issues in online communities such as dialogue and interaction support, information design, and navigation.

A study by Masters and Oberprieler (2004) finds that both women and men post equal numbers of messages, however, findings by Caspi, Chajut, and Saporta (2006) show in contrast that women post more than men. Findings indicating that women prefer web based communication more than men do are further supported by other studies (Bostock & Lizhi, 2005; Jackson et al., 2001). These findings may also be affected by the decreasing of “asymmetrical differences” (Chong, Yang, & Wong, 2003) between women and men which suggest that there are more and more women using the internet (Astleitner & Steinberg, 2005). Participation of men and women in a discussion board may also be affected by the contextual purpose of the discussion board itself. For example, Caspi et al. (2006) found about 40% of students never logged in to web-based internet learning, and of those who did, many did not post at all. Kirkwood and Price (2005, as cited in Caspi et al., 2006) suggested that the participation of both men and women in an online environment may also be dependant on their perceived value of the online context. Guiller and Durndell (2006, p.2240) added that males tend to respond negatively and use more authoritative language than females in discussion boards, and

females tend to “explicitly agree and support others and make more personal and emotional contributions, than males”

In the learning context, discussion boards, as asynchronous computer-mediated communication (CMC), play a certain role to which the degree of learning is controlled by the students and teaching staff as a community. Dawson (2006) finds that in a learning context, “discussions manifesting within the unit forums are more associated with aspects of socialisation in contrast to discussion relating to shared learning goals and outcomes”. The goal of learning can still be achieved but only through socialising online. To be able to socialise online, a “strong sense of community” (Dawson, 2006) first needs to be in place and only through a strong sense of community, can the online community further develop achieving a common goal. Unlike the physical offline environment of discussion where participants can see direct visual and non-verbal communication, the online context does not provide a direct visual communication but only a contextual body which acts as the identity of the forum. In the learning context, the time used for online learning may very well be used for developing a community identity (Dawson, 2006). However, Gunawardena (1995, as cited in Dawson, 2006) state that the time needed to develop the sense of community as a strong base for further development can be influenced and reduced by the ability of an instructor to generate discussion.

2.3 Online Auctions

Online auctions as described by Rafaeli and Noy (2002, p.198) are “one of the most dominant examples of online behaviour”. Auctions in the online format are of research interest for a variety of reasons (Kagel, 1995, Rafaeli & Noy, 2002, p.198). What sets online auctions apart from traditional auctions are the advantages of diminishing any physical limitations; “geography, presence, time, space, and a small target population virtually disappear in online settings” (Bapna, Goes, & Gupta, 2001, p. 43).

The auction system of exchange started back around 500 B.C. Doyle and Baska (2002) summarise the history of auctions as follows:

History of auction	
Year	Description
500 BC	Selling women for wives (Greece)
30 AD	Family furniture auctions (Rome)
7 th to 16 th Centuries	Beginning of English auctions
17 th to 18 th Centuries	Beginning of American auctions
1904	Auction schools began
1920	Images used by American companies for advertising auctions.
1950	Modern auction business was born.
1990	Beginning of technology use in auction industries.
1995	The beginning of online auctions

Table 10: History of auctions (Doyle & Baska, 2002).

Although auction industries have used information technology since the year 1990, online auctions did not begin until 1995. This may be because it was the beginning of the internet era, when the internet was still at its growth stage. In 1995, the first company to run auctions online was the Japanese company Aucnet with automobiles for auction (Doyle & Baska, 2002). This was then followed by the launches of Onsale on May 1995 and eBay on September 1995. Yahoo and Amazon entered the online auction industry in 1996 (Doyle & Baska, 2002).

Table 11 shows the number of users in different large online auction websites from the year 2006 to 2007:

Worldwide users	eBay	Amazon	Trade Me
Active users	81 million users on the month of Dec, 2006 (Yahoo! Finance, 2007)	59 million users (Steiner, 2006)	1,623,138 users on the month of April, 2007 (Trade Me, 2007)
Registered users	222 million users on the month of Dec, 2006 (Yahoo! Finance, 2007)		
Active users: "Users who has bid, bought, or sold in the trailing twelve months period" (Steiner, 2002).			
Registered users: Registered users, but not necessarily active.			

Table 11: Active and registered users in eBay, Amazon, and Trade Me.

Common technical functions used by large online auction websites are the reputation mechanism system and the discussion board. The discussion board (forum) has been identified by many as a medium to communicate business to consumer (B2C) or simply to provide a communication medium for consumers (C2C). As mentioned by Kozinets (2000, as cited in Maclaran & Catterall, 2002), discussion boards are regarded as an asynchronous, time delayed communication and their nature is more information-based rather than social-based. In many online auction websites, discussion boards are also used to communicate between members of the communities (C2C) of the online auction (Pitta & Fowler, 2005, p.266). Online auction companies have little involvement in the discussion board. Their involvement is simply regarded as to moderate the forum but not go as far as participating in the discussion.

There are different purposes identified by different studies for the existence of online discussion boards as part of business websites. They are:

- as a value creation model in businesses (Barnatt, 1998)
- for knowledge creation and transfer (Koh & Kim, 2004)
- to build personal connection (Scott & Johnson, 2005)
- to build "trust" (Ba, 2001; Boyd, 2002; Chong et al., 2003)
- to "deal information" (Gopal, Pathak, Tripathi, & Yin, 2006, p.155)
- to ask "online opinion of other consumers before they buy" (Pitta & Fowler, 2005, p.266).

The reputation mechanism system (Zhang, 2006) is another technical structure used by online communities associated with online auction as a form of interaction between buyers and sellers. A reputation system is defined by Ba (2001) as “an effective enforcement measure for honest behaviour”. Large electronic markets that use reputation mechanism systems include:

- eBay
- Amazon.com Auctions
- Yahoo! Auction
- Auction Universe.

(Malaga, 2001)

Myers (2003, p.2) states that “one of the key ingredients to the success of eBay is the rating system that grades every individual and organisational seller and buyer”. This reputation system (also known as a feedback system) lets buyers and sellers provide either ‘negative’, ‘positive’ or ‘neutral’ feedback along with a space for comments on the trade that had just been completed.

Several different factors are viewed as elements contributing to the success of online communities associated with online auction websites. “Collaboration” is identified by several different studies as a factor that plays an important part in online auctions (Lucking-Reiley, Bryan, Prasad & Reeves, 2006). Different forms of collaboration in online auctions can be identified in several forms, namely: the online community itself associated with “social structure” (Ba, 2001) such as a discussion board; and a “collaborative reputation mechanism” (Zacharia, Moukas, & Maes, 1999, p.7) that allows the community to communicate using a feedback rating system.

Reputation mechanisms in online auction websites are found to have an effect on auction prices. Lucking-Reiley et al. (2006) identify that a negative rating has a greater effect than a positive rating; the minimum bid has a positive effect on the final price but only if bonded to one bidder; and the longer an auction lasts, the more possibility there is for an increase in the auction price.

“Trust” is another online community factor which contributes to trading on an online auction website (Ba, 2001). A cross-cultural study by Chong et al. (2003) indicates that trust leads to the intention of purchasing online. Trust is important where users in online auctions cannot feel and touch the particular item being auctioned. Boyd (2002, p.1) states that “the rhetorical construction of community on the site provides a foundation for trust between users”. If the level of trust between one individual and another surpasses the “threshold of perceived risk” (Boyd, 2002, p.1), it will allow the individual as a buyer or seller to engage in a risk-taking relationship, namely the auction process itself. Trust grows stronger as more interactions take place between individuals. Trust between a business and its customer can be gained by “giving assurances, references, certifications from third parties, and guarantees of privacy and security” (Schneidermann, 2000, p.57). Without trust, traders will find difficulties in selling and buying items. Looking back to the history of trading, trust was used by group of merchants in the beginning of first millennium (Bolton, Katok, & Ockenfels, 2005). Trust was established between the business associates of traders. If there is an untrustworthy associate, the word of mouth would spread within the community.

Personal relationships and feedback rating mechanisms justify the level of trust between a buyer and a seller. Feedback rating mechanisms are used by large online auction websites, namely Amazon, eBay and Yahoo (Wang & Chiu, 2005). The feedback rating mechanism works by giving the other trader a score after a trade has been done.. The score can be negative (-1), neutral (0), or positive (+1) along with an additional comment to be made with each score given. A study by Bolton, Katok, & Ockenfels (2005) finds that the reputation mechanism does fill the online trust gap, but, does not directly replace a trustworthy partner relationship. Such systems have been used for fraud (Wang & Chiu, 2005; Wurman, 2003). Most users are still unaware of these challenges and still rely on the number of positive ratings shown by the feedback rating system (Wurman, 2003). In this way the feedback rating mechanism also creates a “sense of community”, similar to an online discussion board, which enhances personal relationships between users and is considered critical to the success of online auctions (Lin & Joyce, 2004; Wurman, 2003).

“Social translucence” is another factor looked at in the study of online auction (Erickson, Halverson, Kellogg, Laff, & Wolf, 2002, p.60). Based on the concept that auctions are social events, users in an auction are conscious of their actions and aware of being watched by other people (Erickson et al., 2002). A recent experimental study by Rafaeli and Noy (2006) further supports this claim by finding out that the virtual presence in an online auction affects users’ bidding behavior and the outcome of the auction. A case study example by Stern and Stafford (2006) indicates that the presence of a visual cue of an item also leads to early bids as well as providing opportunity for a higher winning bid.

Other than social aspects, there is also a technical aspect to community online. The technical platform plays an important part in deciding how the community can interact and play its part in an online auction website (Wenger, 2001). Stanoevska-Slabeva and Schmid (2000) identify that logical space and organisational structure are significant factors. Different structural platforms have been proposed for different types of communities; however, there is no ultimate solution to deciding which platform to use for which kind of community in a given online situation. The quality of online auction websites has also been assessed (Barnes & Vidgen, 2001) and shown to play a part in determining how the community itself can influence trading.

2.1.1 Activities in online auction websites

Different activities on online auction websites include “bidding activity” (Akula & Menasce, 2004), discussion boards and chat rooms, customer service (Lin & Joyce, 2004), user rating system (Ba, 2001), and even “fraud” (Gavish & Tucci, 2006). Lin and Joyce (2004) indicate the existence of other online auction website activities such as online learning centres and online auction programs.

In the context of online shopping, Wolfinbarger and Gilly (2001) determine that there are more goal-oriented (for efficiency) than experience-oriented (for fun) online shoppers. While goal-oriented shoppers are “task-oriented, efficient, rational, and deliberate”, experience-oriented shoppers have an “ongoing, hobby-type interest” (Wolfinbarger & Gilly, 2001, p. 349). Wolfinbarger and Gilly (2001) also mention the importance of website design to ease the process of finding information for the users. It may also be the basic building block which can be used to provide easy navigation for users to move from

one activity to another within the website. Only experiential consumers are said to be more interested in the community within an online auction website than in shopping.

Bidding activity is one of the main activities in online auction websites. Bidding in online auction websites is thought to have a more unique activity flow than other e-commerce infrastructures (Akula & Menasce, 2004). Online auction websites have rules on how the users can bid. Two different examples of rules are in eBay and Amazon. While eBay has a fixed end time, Amazon extends its end auction time if there are last minute bids. The fixed end time of eBay often leads to what is called “bid sniping” (Roth & Ockenfels, 2000).

2.1.2 Interaction in the discussion board

Lin and Joyce (2004) identify the discussion board as one of critical success factors in online auction websites. The result of this researcher’s survey indicates that actual trades are happening based on participation in Trade Me’s discussion board by showing that a significant minority (40%) of users have done so. A research by Cameron and Galloway (2005) even finds that there are “many consumers have been motivated to turn to online auctions to purchase and sell goods”. Users still get the benefit of having lower prices than those items sold from retail stores, along with the ease of purchasing unobtainable items (Cameron & Galloway, 2005). Mathews (2003) note that impatience of either the seller or bidder in online auctions may also trigger the process of buy-now. When only the seller is time impatient, rather than the bidder, it can lead to the decrease of optimal price of the item. Gillian, Malhotra, and Murnighan (2005, p.89) also mention that “rivalry, social facilitation, time pressure, and/or the uniqueness of being first can fuel arousal, which then impairs decision making”. If an auction fulfills those criteria, there is a high possibility of selling the item at higher price.

Kollock (1999) shows that formal and informal risk management is exercised by many online markets to avoid an unwanted outcome in a transaction. One example of an informal mechanism is for both parties to meet face to face to diminish the possibility having one side going empty handed, whilst examples of formal mechanisms are credit card companies, accounting firms, and collection agencies. Kollock (1999) further mentions that risks involved from trading through an informal mechanism such as a Usenet may eventually lead to fraudulent acts; however, there are still many users who exercise informal ‘trades’. Nowadays, online auction websites do provide discussion forums for their users to informally interact with one another, however, what is not known at this stage is the existence of any informal trading conduct aside from using the formal mechanism provided by the online auction website itself (i.e. through the bidding or buy now process).

Boyd (2002) defines the community in eBay, one of the largest international online auction websites, as a collection of users who share the same interests and transact, having commerce as the basic reason for the community to interact. Due to this particular reason, eBay has embraced the model of a community of trust as mentioned by Anders (1999, as cited in Boyd, 2002). Boyd (2002) introduce seven elements for eBay’s community of trust. They are: individual identities, a common symbol system, reciprocal

influence, shared narrative, emotional connection, antagonism towards outsiders, and status.

2.1.3 Trade Me's community sites

Trade Me, as one of the community websites online, provides its online community with access to other community websites. Not only can the community trade on Trade Me, but they are also accustomed to using the different services provided by the other community websites such as Oldfriends, Smaps, Findsomeone, Safetrader, and Stuff.

Oldfriends and Findsomeone are described by Fairfax (2006) as the only two 'community sites' in terms of their ability to provide a community supporting website. The other sites that are not mentioned by the study but included as community sites are Stuff (a news site), Smaps (digital maps), and Safetrader (a safe transaction site). Findsomeone and Oldfriends both provide a web based profile for each member and allow them to connect with one another. Only Findsomeone has a discussion board similar to Trade Me.

2.1.4 Aspects taken into account before and after trading

Although fraudulent actions have been a concern in online auction websites, Harris Interactive (2001) observes that the majority of online auction participants are confident they will get what they pay for from the seller (94%) and, for those who mostly sell, they are confident they will get what they pay for when buying (99%). The reason may be that the sellers are blindly optimistic and expect others to be as honest as they themselves are when selling.

Gavish and Tucci (2006) define non-delivery of items as the number one main method of swindlers in online auctions. The cases vary from one another. While some still deliver with an alternate lower quality item, some do not deliver the item at all after payment has been made. More variations of fraud actions are:

- setting up a fraudulent escrow company
- using a partner to keep the bids high
- sending fake e-mails to lure users sending out their credit card information.

(Gavish & Tucci, 2006)

Lee, Im, and Lee (2000) suggest that the amount of feedback that is negative is more significant to buyers and sellers than its percentage. Buyers are more sensitive to negative feedback on buying a second hand product than new products and are also "more willing to give a negative feedback to sellers who have recently received other negative feedback" (Khopkar, Li, & Resnick, 2005).

Visual representation of an item is also reported to be inferior to verbal cues as forms of communication between the seller and buyer (Rafaeli & Noy, 2006; Stern & Stafford, 2006)

2.1.5 Time spent on the website

Rafaeli and Noy (2002) find that when users in online auctions are aware of the online presence of other bidders, they are more inclined to stay longer in the auction activity. The result indicates that respondents stay longer because they are waiting for an item. Users on Trade Me are able to see other bidders and their bids while waiting or bidding on an item. This is also a form of virtual cue for the existence of other users while bidding. Peters & Bodkin (2007) also state in their findings that eBay users tend to lose track of time while browsing although they initially do not want to browse longer than an hour. Although some users have experienced fraud, they still continue purchasing items in online auctions.

2.4 Summary

The following list summarises important points in the literature review:

- Online auctions in the internet are a part of online transactional technologies along with online shopping.
- Males outweighed females as internet users in the past, however, countries like Australia, New Zealand and America have already come close to gender equity for using the internet. The gender gap has narrowed over the years and has even reversed, now having more females than males as internet users.
- Data on age and gender differences are used by online companies to appeal and reach dominant gender and age groups. Studies show that males and females shopping online purchase different products.
- Studies find that younger and older users have different buying preferences and younger users are more likely to purchase online than the older ones.
- Online communities are beneficial because they attract people and provide competitive advantage to the online market.
- Participation by gender is affected by the contextual purpose of the discussion board. The use of discussion boards is affected by their perceived value and by experience in the online context.
- Online auctions are highly popular.
- Online discussion boards are used as tools to provide competitive advantages in businesses.
- The online community is a critical factor in the success of an online auction website and includes elements such as collaboration, trust, social translucence and technical platforms.
- Activities in an online auction website include trading, interacting, and even fraud.
- Interactions on discussion boards may lead to informal trades.
- Trade Me's community sites are Oldfriends and Findsomeone, whereas others are seen as additions to the services provided (Safetrader, Smaps, and Stuff)
- Negative feedback on online auction websites is more significant than positive feedback.

- Staying longer and interacting with others may lead to purchases in an online auction website.

Not many studies have been found that directly investigate how online communities either directly or indirectly affect trading in an online auction website. However, it is hoped that the result of this research will provide more knowledge about this area. The following chapter describes the methods used in this research, including different data collection techniques.

3 Methodology

3.1 Introduction

This chapter provides an overview of the methods used in this study. This chapter is divided into the following sections:

- research method
- data collection method
- data analysis method.

This study employs both quantitative and qualitative approaches. Trade Me is a particular case of an online auction website chosen for this research. An online survey was posted on the Trade Me discussion board, including both closed and open-ended questions. The qualitative approach in this research helped to analyse the comments from research participants, while the quantitative approach helped to provide a summary of their responses. The data analysis uses descriptive statistics.

3.2 Research method

Mixed method research as defined by Creswell and Clark (2004) is “a design for collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies to understand a research problem”. Burns (2000) states that both approaches (qualitative and quantitative) in research are needed and “no one methodology can answer all questions and provide insights on all issues”.

A quantitative approach is described by Straub, Gefen, and Boudreau (2004) as “a set of methods and techniques that allow IS researchers to answer research questions about the interaction of humans and computers”, while investigations in the form of a qualitative approach “tend to be based on a recognition of the importance of the subjective, experiential ‘lifeworld’ of human beings” (Burns, 2000)

The structure of this research is modeled as shown in Figure 1 below.

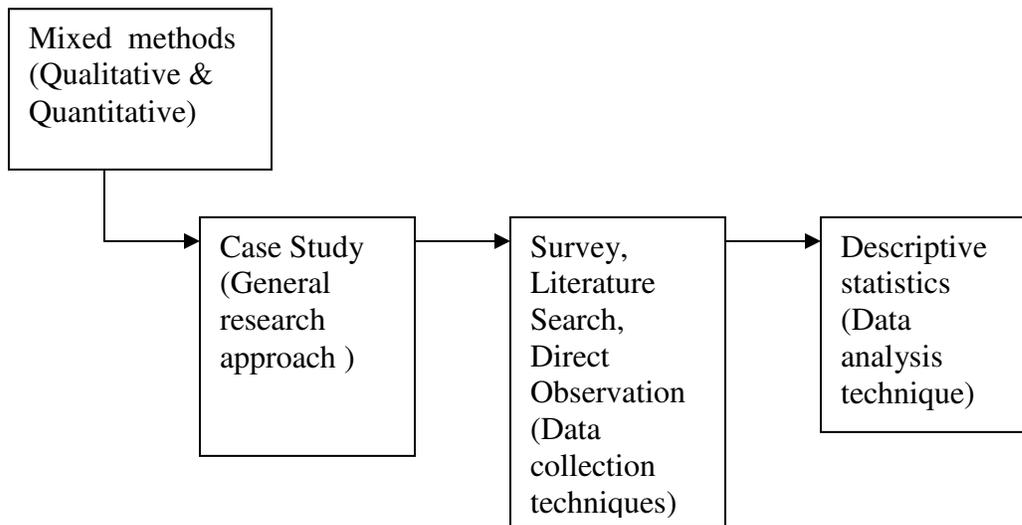


Figure 1: Research Method (template adapted from: Straub, Gefen, and Boudreau, 2004)

Although both approaches were used, this study tends to be more quantitative than qualitative.

Further explanation of the survey questions used can be seen in the Survey section of this dissertation.

3.2.1 Case Study

The case chosen for the research was Trade Me as New Zealand’s online auction website. The study is focused solely on Trade Me.

3.3 Data collection method

Data in this research was gathered by using three methods. The methods used were:

- direct observation
- a literature search
- survey questionnaires.

Early in this study, the data collection method used was as a participant observer on the online auction website Trade Me. The discussion board, community sites and reputation mechanism system in Trade Me were three particular aspects investigated. Knowledge gathered from observing the website was complemented by reviewing a range of literature.

Research questions were then formulated to help determine the survey questions. After data gathering by using the online survey, more literature was reviewed to help interpret the collected data.

3.3.1 Survey

Straub, Gefen, and Boudreau (2004) classify surveys as experimental instruments for capturing data. Owens (2005) notes that survey data can be collected either at one point of time or various points of time. The survey in this study was only conducted at one point of time as the data gathered were sufficient to meet the research aims. The survey used both open and closed questions.

For the data collection stage of the research, survey questionnaires were developed using Survey Monkey and hyperlinks were posted as a thread in the discussion board of Trade Me's website. As Trade Me's discussion board was divided into 18 different sections, the four sections with most threads in Trade Me's discussion board were chosen to conduct the survey in order to get the most responses. They were:

- General section
- Opinion section
- Parenting section
- Pets and animals section

The reason for choosing only four sections was also that the researcher did not want the threads to be regarded as spam. It was necessary to limit the number of sections chosen as the survey target. New threads were made in each of those sections with the title "Research on Trade Me". The threads were simultaneously monitored until at least 150 responses were gathered. If sufficient responses had not been received, monitoring and posting to make sure the topic was the first to be displayed on the list would have been done until enough responses were acquired. The threads were also 'bumped' several times to keep the threads active within the time they were monitored.

The types of questions asked of participants included both closed and open-ended questions. Data from all open-ended questions were further classified to ease the process of data analysis. The questions were categorised into the following:

1. Questions on gender, age, and location (the only demographic questions asked).
2. Questions on different purposes in Trade Me.
3. Questions on the discussion board.
4. Questions on the community sites.
5. Questions on activities done in the website which may relate to trading.
6. Questions on time factor.

One disadvantage of a survey questionnaire is the difficulty of generating random samples of a general population (Owens, 2005). An online survey was chosen because it was seen as an appropriate and efficient way of reaching members of an online community. Initially, 150-200 responses were expected to be an acceptable dataset for this dissertation; however, the actual responses exceeded this expectation. There were 224 responses in one day.

Another downside of an online questionnaire is the credibility of the survey from the perspective of the participants. Participants may doubt whether the data they submit will be used for an honest purpose or as stated by the researcher. In this online survey, the researcher stated on the discussion board both the purpose and the background of the research, and assured the participants that private questions were not going to be asked as

only three strictly demographic questions were asked (age, gender, and locations). Participants who had done the survey encouraged others to participate and the researcher also received useful feedback from the participants. Some considered the survey was ‘fun’, while others gave comments on how the layout could have been improved.

3.3.1.1 Survey questions

The survey questions in this study reflect both research approaches (qualitative and quantitative). However, during the data analysis phase of the research, answers to open-ended questions were classified and grouped in order to quantify the data and make them easy to manage due to the large number of responses. Similar answers were received to all open-ended questions in the survey; therefore, it eased the process of grouping and classifying data into quantifiable measures.

Only three of the twenty seven questions are open-ended. Two of the open-ended questions (questions 18 & 19) ask about the aspects users take into account when giving negative and positive feedback after a trade has been done. Since there are similar answers from respondents, the answers are further classified in this study as follows:

Aspects for positive feedback:

1. Attitude
2. Communication
3. Feedback
4. Product quality
5. Timeliness

Aspects for negative feedback:

1. Attitude
2. Communication
3. Feedback
4. Product quality
5. Reliability
6. Timeliness

The following list explains the classification of each variable:

- **attitude:** how friendly the traders are
- **communication:** how much effort is put into communicating with other traders
- **feedback:** feedback received from the other trader
- **product quality:** how does the product quality match the expectation of buyers depending on the description of the product and the picture provided during the auction
- **reliability:** trade done but goods aren’t received (unsuccessful trade)
- **timeliness:** how fast the traders respond to e-mails

The results show that reliability does not come up as an aspect of positive feedback.

The one other open-ended question (question 22) asks about the aspect of someone’s profile that the participants normally look at before performing a trade. The answers are classified as follows:

1. Feedback: positive and negative feedback from the trader.
2. General profile: name, photos, current listings and start date of membership.
3. Location: location of the trader.
4. Trades: past trades.
5. Trading rules: if certain trading rules are stated in the profile.
6. Trust: if the trader has listed anyone on their blacklist.

Some other definitions on the survey answers are:

1. Bidding: bidding on one or more items, but not winning the item(s).
2. Bidding and winning the bid: Bidding for an item and winning the item.
3. Buying: Buying an item directly
4. Selling: Selling or setting up an auction for an item, or selling the item.

Not all respondents answered all the questions given in the survey. The percentage provided in the 'all' column in the results table only shows the percentage out of the respondents who actually answered to that particular question. Five questions (13, 14, 16, 17, and 26) allow multiple answers—where a respondent can choose more than one answer for that particular question.

3.3.1.2 Concerns with the dataset

The respondents cannot be considered a random sample because of the limited time frame. By choosing only four sections with most threads in Trade Me's discussion board, the survey leaves out:

- users who don't use Trade Me's discussion board
- users who were not online at the time the survey was conducted
- users who don't visit the particular thread that was chosen.

Some users of the discussion board may also be more willing than others to complete a survey. On the other hand, Survey Monkey provided an easy to use browser so that differences in software and computer capability did not affect the survey.

It was also necessary to break the number of participants into their age groups during data analysis, resulting in small samples for each age group.

3.3.2 Observation

Observation as explained by Silvermann (2001) is "fundamental to understanding another culture". The first data collection, done during the initial stage of the research to help scope the project, involved observing Trade Me's website, discussion board, and other community sites to gather background knowledge about Trade Me and its community.

3.3.3 Literature search

The literature search was undertaken in order to gather background knowledge at the start of the research and to establish the basic knowledge claim for the data gathered. The background knowledge was then reflected in the literature review part of this document. Different studies included studies on trust, web site quality, critical success factors, community, and social aspects of online auctions.

The secondary data sources used to search for the literature were hardcopy journals and the internet. Internet sources used include online databases and search engines.

A literature search was used to firstly initiate a knowledge claim or background theory as the base of this study. This method was also used after the survey data was collected to underpin further discussions.

3.4 Data analysis method

Data were gathered and processed using the SPSS statistical tool with the help of Microsoft Excel tables. The results showed how online behaviour varies across different age groups and genders.

The data analysis method chosen in this study is descriptive statistics. Descriptive statistics as mentioned by Trochim (2006) “are used to describe the basic features of data in a study”. Descriptive statistics describe the data without any influence or judgments from the researcher. Descriptive statistics are a good way of summarising data. This method was chosen because there was initially a large amount of data gathered from the participants. There are a total of 21 questions including some with multiple answers which introduced more variables into the study. Descriptive statistics helped to summarise the data into a summary table where patterns could easily be identified.

As there were no questions asked within the survey that could identify the participants, they did not need to worry about having their data revealed. It can only be assumed that the responses were genuine.

3.5 Ethics issues

As the research is carried on through the online media where the anonymity of users is respected, no major ethical issues have been identified in the study.

3.6 Summary

Both qualitative and quantitative approaches were used in this research, however, the research tends to be more quantitative. Different data collection techniques were used to enrich the results of the research. Although the researcher’s personal bias may affect the initial observations, quantitative data were further used to support the outcome of the study. The following chapter provides details on the results gathered through the online survey questionnaire.

4 Results and Analysis

4.1 Introduction

This chapter provides an insight to analysis done based on the survey data. Section 4.2 analyses the demographics of survey respondents, while section 4.3 to section 4.7 categorises the data into different categories and analyses the respondents' activities and attitudes. Section 4.3 explores major activities on the website, while section 4.4 and 4.5 look into activities of respondents on the discussion boards and the community websites respectively. Section 4.6 explores more activities before and after a trade and section 4.7 explores factors that may influence time spent on the website. Section 4.8 summarises the major trends and findings described in section 4.3 to section 4.7.

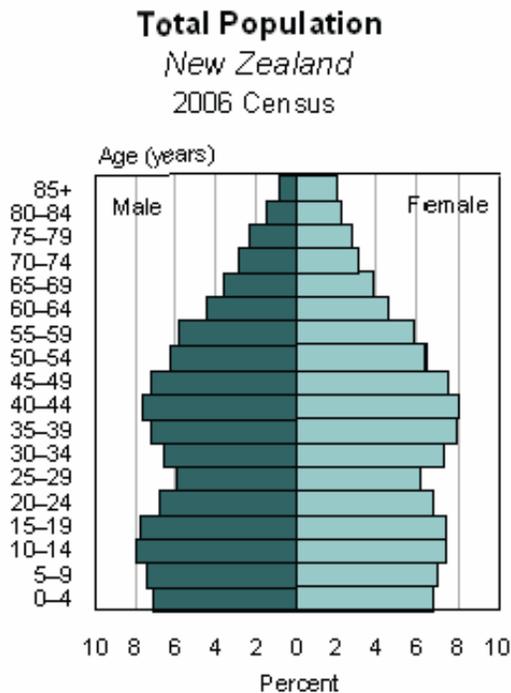
4.2 Demographics

All respondents were older than 12, nearly all (97.8%) were located in New Zealand and nearly three quarters (71.9%) were female. The proportions of respondents in different age groups are shown in Table 12 along with the corresponding proportions from the 2006 census (see Figure 2).

	13-24	25-34	35-44	45-54	55 or more
Proportion in sample	26	33	19	14	8
Proportion in population	18	17	19	18	29

Table 12: Proportion in sample and proportion in population amongst different age groups.

According to Willard (personal communication, March 20, 2007), the age and gender breakdown of Trade Me's user population is very much in line with the general New Zealand population. Statistics New Zealand (2006) showed the percentage of female population has been slightly higher than males from the year 2004 to 2006.



It can be seen that females and the two younger age groups are over-represented in the sample while males and the two older age groups are under-represented in the sample.

Figure 2: New Zealand age group population 2006 (Statistics New Zealand, 2006)

4.3 Activities on the site

Table 13 shows the responses concerned with respondents' activities on Trade Me's site

	All	Female	Male	13-24	25-34	35-44	45-54	55-
Number of responses	224	161	63	55	70	41	30	16
% Primary Purpose:								
Trades(buy/sell/bid/bid-win)	67.0	67.1	66.7	60.0	61.4	68.3	80.0	75.0
Use discussion board	30.4	30.4	30.2	38.2	35.7	29.3	13.3	25.0
Visit community sites	2.7	2.5	3.2	1.8	2.9	2.4	6.7	0.0
% Secondary Purpose:								
Use discussion board	60.3	60.9	58.7	56.4	55.7	65.9	76.7	56.3
Trades(buy/sell/bid/bid-win)	36.2	36.0	36.5	40.0	42.9	31.7	20.0	31.3
Visit community sites	3.6	3.1	4.8	3.6	1.4	2.4	3.3	12.5
% Both purposes in multiple web sessions	70.1	70.3	69.5	81.1	75.0	74.4	57.1	50.0
% Multiple tasks in multiple web sessions:								
Auctions	60.7	62.7	55.6	70.9	61.4	70.7	50.0	31.3
Boards	44.2	47.2	36.5	47.3	38.6	61.0	33.3	37.5
Browse sites	6.7	6.2	7.9	9.1	5.7	9.8	3.3	6.3
Check e-mails	1.8	1.2	3.2	1.8	1.4	2.4	3.3	0.0
Visit community sites	1.8	2.5	0.0	1.8	2.8	0.0	0.0	6.3

Table 13: Respondents purposes on Trade Me's site

What might be your primary purpose upon entering the website?

- a. Trading (Buying/Selling/Bidding)
- b. Using Trade Me's discussion board
- c. Visiting other community sites, please specify which site(s): _____

*Note: community sites are: Stuff, Find Someone, Old Friends, Smaps, Safe Trader.

Trading is the primary purpose for a clear majority (60% to 80%) of both genders and all age groups (more for the two oldest groups).

Using the discussion board is the primary purpose for a minority (13% to 38%) of both genders and all age groups (more for the two youngest groups).

Very few respondents identified visiting community sites as their primary purpose.

Females have very similar percentage to males on all primary purposes.

What might be your secondary purpose upon entering the website?

- a. Trading (Buying/Selling/Bidding)
- b. Using Trade Me's discussion board
- c. Visiting other community sites, please specify which site(s): _____

*Note: community sites are: Stuff, Find Someone, Old Friends, Smaps, Safe Trader.

Using the discussion board is a secondary purpose for a majority (56% to 77%) of both genders and all age groups (more for the second oldest and middle age groups).

Trading is a secondary purpose for a minority of all age groups (20% to 43%, more for the two youngest groups) and both genders.

Very few have visited the community sites as secondary purpose.

Females have very similar percentage to males on all secondary purposes.

A clear majority of participants (60%) have identified trading as a primary purpose and using the discussion board as a secondary purpose in using Trade Me.

A substantial minority of participants (nearly 30%) identified using the discussion board as their primary purpose and trading as their secondary purpose in Trade Me.

Very few participants (less than 5%) have identified trading as their only purpose upon entering Trade Me.

Have you ever tried doing both of your primary and secondary tasks (e.g. using discussion board while watching an item) at the same time by using multiple web sessions/browsers in Trade Me? Yes/No

A majority (50% to 81%) of both genders and all age groups have done both primary and secondary tasks in multiple web sessions.

The proportions of respondents doing both the primary and secondary tasks in multiple web sessions tend to decline with age.

The proportions doing both the primary and secondary tasks in multiple web sessions are very similar for females and males.

What other task(s) in Trade Me do you do at the same time by using multiple web sessions? (E.g: watching auctioned item while using the discussion board.)

The majority of participants aged 13 to 54 have included ‘auction’ as one of the multiple tasks, but only a minority of participants aged 55 or more have done so.

A majority of participants aged 35 to 44 have included ‘discussion board’ as one of the multiple tasks, but only a substantial minority of all other age groups have done so.

A higher proportion of the oldest age group (55 or more) have ‘discussion board’ than have ‘auction’ as one of the multiple tasks.

Only a small number of participants have included ‘browsing websites’, ‘checking e-mails’ and ‘visiting community sites’ as tasks in multiple web sessions.

More than half of both females and males have included ‘auction’ as one of the tasks done in multiple web sessions.

A significant minority of females and males have included ‘discussion board’ as one of the tasks done in multiple web sessions.

Higher proportions of females than males include ‘auction’ and ‘discussion board’ as tasks done in multiple web sessions.

4.4 Interaction on the discussion board

Table 14 shows the responses concerned with respondents’ interactions on Trade Me’s discussion board.

	All	Female	Male	13-24	25-34	35-44	45-54	55-
Number of responses	224	161	63	55	70	41	30	16
% Interacting on the discussion board	80.7	80.4	81.4	84.9	80.6	84.2	67.9	85.7
% Checking for trading possibilities on the discussion board	38.2	37.9	39.0	47.2	40.3	42.1	32.1	14.3
% Trading based on interaction on the discussion board	40.1	41.8	35.6	41.5	47.8	50.0	28.6	14.3
% Types of trading based on discussion board interaction:								
Buying	28.1	28.6	27.0	32.7	34.3	34.1	16.7	0.0
Selling	18.8	19.3	17.5	25.5	18.6	19.5	16.7	12.5
Bidding	17.0	19.3	11.1	18.2	18.6	24.4	16.7	0.0
Bidding and Win	14.7	16.8	9.5	14.5	20.0	17.1	13.3	0.0

Table 14: Respondents interaction on Trade Me’s discussion board.

Have you ever interacted with any of the members on the discussion board? Yes/No

The great majority of respondents (more than 80%) have interacted on the discussion board.

The proportion doing so is slightly (1%) higher for males than females.

The proportions vary widely across the age groups, being highest (85.7%) for those aged 55 or more and lowest (67.9%) for those aged 45-54

Have you ever checked the discussion board for possibilities of trading with other people? Yes/No

Only a minority of respondents (less than 40%) have checked for trading possibilities on the discussion board.

The proportion doing so is slightly (1.1%) higher for males than for females.

The proportions vary greatly across the age groups, being highest (47.2%) for those aged 13-24 and lowest (14.3%) for those aged 55 or more. The trend is for the proportion of respondents checking to decrease with age.

Have you ever performed trading based on the interaction with other member(s) on the discussion board? Yes/No

Only a minority of respondents (around 40%) have traded based on interactions on the discussion board.

The proportion doing so is significantly (6.2%) higher for females than for males.

The proportions vary greatly across the age groups, being highest (50%) for those aged 35-44 and lowest (14.3%) for those aged 55 or more. The trend is for the proportion of respondents trading to increase up to the age group of 35-44 and decrease after the age group of 35-44.

If yes, please specify what kind of trading you have performed based on the interaction with other members:

- i. Buying
- ii. Selling
- iii. Bidding
- iv. Bidding and winning the bid
(Can be more than one answer)

The data show that buying is the most common trading activity based on discussion board interaction, followed by selling, bidding, and bidding to win.

Similar proportions of females and males undertook buying and selling based on interactions on the discussion board

Higher proportions of females than males undertook bidding, and bidding and winning based on interactions on the discussion board.

4.5 Interaction on community sites

Table 15 shows the responses concerned with respondents' interaction on the other community sites.

	All	Female	Male	13-24	25-34	35-44	45-54	55+
Number of responses	224	161	63	55	70	41	30	16
% Visiting community sites	87.9	87.5	89.1	87.8	89.7	86.8	96.4	83.3
% Community sites visited:								
Oldfriends	68.3	73.9	54.0	65.5	75.7	63.4	76.7	62.5
Stuff	58.5	57.8	60.3	65.5	52.9	61.0	66.7	43.8
Smaps	51.3	51.6	50.8	49.1	58.6	51.2	63.3	31.3
Findsomeone	21.4	21.7	20.6	23.6	28.6	17.1	10.0	17.8
Safetrader	8.9	6.8	14.3	12.7	4.3	14.6	10.0	6.3
Others	1.8	1.9	1.6	5.5	1.4	0.0	0.0	0.0
% Activities in community sites:								
Finding friends	45.5	51.6	30.2	40.0	57.1	43.9	43.3	50.0
Looking for help	33.9	32.3	38.1	38.2	42.9	17.1	36.7	31.3
Asking for advice	31.3	33.5	25.4	32.7	42.9	17.1	30.0	25.0
Giving feedback	26.3	26.7	25.4	20.0	25.7	29.3	40.0	18.8
Others	23.7	23.0	25.4	20.0	25.7	31.7	23.3	6.3
% Traded based on interaction in the community sites	3.9	4.7	1.8	0.0	6.3	2.7	10.0	0.0
% Community Sites used for trade:								
Oldfriends	2.2	1.9	3.2	0.0	4.3	0.0	6.7	0.0
Stuff	1.3	0.6	3.2	0.0	1.4	2.4	3.3	0.0
Findsomeone	0.9	0.6	1.6	0.0	1.4	0.0	3.3	0.0
Others	0.9	1.2	0.0	1.8	0.0	0.0	0.0	6.3
Smaps	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Safetrader	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Types of trading based on community sites interaction:								
Buying	2.2	2.5	1.6	1.8	2.9	0.0	3.3	6.3
Selling	1.8	1.9	1.6	1.8	2.9	0.0	3.3	0.0
Bidding	1.8	2.5	0.0	1.8	1.4	0.0	3.3	6.3
Bidding and Win	1.8	1.9	1.6	1.8	0.0	2.4	3.3	6.3

Table 15: Respondents' interaction on the community sites.

Have you ever visited other community websites? Yes/No

*Note: community sites are: Stuff, Find Someone, Old Friends, Smaps, Safe Trader.

The great majority of respondents (nearly 90%) have visited the community sites.

The proportion doing so is slightly (1.6%) higher for males than for females.

The proportions vary widely across the age groups, being highest (96.4%) for those aged 45-54 and lowest (83.3%) for those aged 55 or more

If yes, which site(s) did you visit?

- i. Stuff.co.nz
 - ii. Findsomeone.co.nz
 - iii. Oldfriends.co.nz
 - iv. Smaps.co.nz
 - v. Safetrader.co.nz
 - vi. Others please specify_____
- (Can be more than one answer)

A clear majority (54% to 77%) of respondents of both genders and all age groups have visited the Oldfriends site.

A majority (53% to 67%) of respondents of both genders and all age groups other than the oldest have visited the Stuff site.

The majority of respondents aged 25 to 54 have visited the Smaps site.

For these three sites, the second oldest age group (45 to 54) has the highest proportion of those who have visited and the oldest age group has the lowest proportion.

The proportion of respondents who have visited the Oldfriends site is much higher for females than males.

The proportion of respondents who have visited the Safetrader site is much higher for males than females.

Similar proportions of females and males have visited the Stuff, Findsomeone and Smaps sites.

A small number of respondents aged 13 to 34 visited other websites (no respondents aged 35 or more did so). Other websites visited include Zillion, GetSorted, HooHaa, Outsidethenine, Nzxt, Gpforums, Friendsunited, Smilecity, and Yahoo.

If yes, what activities do you do in the community site(s)?

- i. Asking for advice
 - ii. Looking for help
 - iii. Giving feedback
 - iv. Finding friends
 - v. Others please specify_____
- (Can be more than one answer)

In all age groups, the activity in which the highest proportion of respondents has engaged is finding friends.

Higher proportions of females than males look for advice and find friends in the community sites.

A higher proportion of males than females look for help in the community sites.

Similar proportions of females and males provide feedback in the community sites.

Less than a quarter respondents have engaged in other activities in the community sites. These include: “reading the news”, “looking for directions”, “reading not posting”, “helping people out”, “catch up with old friends”, and “conducting some research”.

Have you ever performed trading in Trade Me based on your interaction with people in the other community site(s)? Yes/No

Only a few respondents have traded based on interaction in the community sites.

No one in the youngest and oldest age groups has done so at all.

Only a few of both genders and all age groups except the youngest and the oldest have traded based on interaction on the community sites.

Significantly higher proportions of females than males have traded based on interaction in the community sites.

If yes, please specify which community website(s):

- i. Stuff.co.nz
- ii. Findsomeone.co.nz
- iii. Oldfriends.co.nz
- iv. Smaps.co.nz
- v. Safetrader.co.nz
- vi. Others please specify
(Can be more than one answer)

Only a few respondents have traded based on their interaction in the community sites.

Very small numbers of respondents have traded based on interaction in Oldfriends, Stuff, and Findsomeone.

Zillion is the only website that the respondents specified other than those listed.

If yes, please specify what kind(s) of trading in Trade Me you have performed based on your interaction with other people in the other community website(s):

- i. Buying
- ii. Selling
- iii. Bidding
- iv. Bidding and winning the bid
(Can be more than one answer)

Only few of both genders and all age groups have traded based on interaction on the community sites.

4.6 Aspects taken into account before and after trading

Table 16 shows the responses concerned with the aspects taken into account before and after trading.

	All	Female	Male	13-24	25-34	35-44	45-54	55-
Number of responses	224	161	63	55	70	41	30	16
% Checking on seller's profile	79.2	80.7	75.0	72.1	83.6	79.4	84.0	81.8
% Checking on bidder's profile	53.6	54.1	52.1	55.8	55.7	52.9	52.0	54.5
% Profile aspects checked before trading:								
Feedback	61.2	64.0	54.0	54.5	71.4	65.9	60.0	50.0
Location	27.2	29.2	22.2	30.9	30.0	19.5	36.7	18.2
Past trades	4.5	3.7	6.3	3.6	2.9	4.9	6.7	18.2
General profile	4.0	3.7	4.8	5.5	4.3	2.4	3.3	0.0
Trading rules	1.8	2.5	0.0	3.6	2.9	0.0	0.0	0.0
Trust list	0.4	0.6	0.0	0.0	0.0	2.4	0.0	0.0
% Checking on item's background	64.5	60.0	77.1	58.1	68.9	67.6	64.0	54.5
% Thinking that visual representation is important	95.6	97.0	91.7	93.0	98.4	100.0	100.0	81.8
% Positive feedback criteria:								
Timeliness	57.1	59.6	50.8	52.7	65.7	56.1	63.3	43.8
Product quality	37.9	41.0	30.2	27.3	45.7	43.9	50.0	18.8
Communication	30.4	32.9	23.8	29.1	35.7	31.7	33.3	12.5
Attitude	23.7	24.2	22.2	29.1	25.7	31.7	6.7	18.8
Feedback	0.4	0.6	0.0	0.0	0.0	2.4	0.0	0.0
% Negative feedback criteria:								
Product quality	38.8	40.4	34.9	32.7	47.1	43.9	36.7	37.5
Communication	35.7	39.1	27.0	40.0	40.0	34.1	30.0	12.5
Attitude	33.0	36.0	25.4	38.2	29.3	31.7	30.0	12.5
Timeliness	30.4	33.5	22.2	27.3	37.1	31.7	33.3	25.0
Reliability	11.6	10.6	14.3	7.3	12.9	12.2	20.0	0.0
Feedback	2.2	1.9	3.2	1.8	2.9	5.0	0.0	0.0

Table 16: Pre and post trading activities of the respondents.

Do you check the seller's profile before buying an item? Yes/No

The great majority of respondents (nearly 80%) check on the seller's profile before buying or bidding an item.

The proportion doing so is significantly (5.7%) higher for females than for males.

The proportions vary widely across the age groups, being highest (84%) for those aged 45-54 and lowest (72.1%) for those aged 13-24.

Do you check the buyer's or bidder's profile before selling an item? Yes/No

A majority of respondents (more than 50%) check on the bidder's profile while selling or auctioning an item.

The proportion doing so is slightly (2%) higher for females than for males.

The proportions vary slightly across the age groups, being highest (55.8%) for those aged 12-24 and lowest (52.0%) for those aged 45-54

What aspect of someone's profile do you normally look at before performing a trade?

The majority (50% to 71%) of both genders and all age groups check on the other trader's feedback more than on the other profile aspects before making a trade.

A substantial minority (18% to 37%) of both genders and all age groups check on the other trader's location before making a trade.

Only a few of both genders and all age groups check on the other trader's general profile, past trades, trading rules, and trust list before making a trade.

Significantly higher proportions of females than males check on feedback and location.

Higher proportions of males than females check on general profiles and past trades.

Few females and no males check on trading rules and trust lists.

Do you normally find out about the item from other sources before bidding/buying an item? Yes/No

A clear majority of respondents (more than 60%) check on item's background before buying an item.

The proportion doing so is significantly (17.1%) higher for males than for females.

The proportions vary widely across the age groups, being highest (68.9%) for those aged 25-34 and lowest (54.5%) for those aged 55 or more.

Is being able to view a virtual representation (photo) of the item being auctioned important for you before making a bid? Yes/No

The great majority of respondents (more than 90%) think that visual representation of an item being auctioned is important.

The proportion doing so is significantly (5.3%) higher for females than for males.

The proportions vary widely across the age groups, being highest (100%) for those aged 35-54 and lowest (81.8%) for those aged 55 or more.

What aspects would you take into account in giving positive feedback to other people after a trade has been done?

In all age groups, timeliness is viewed as the most important criterion for positive feedback.

In all age groups except the youngest, product quality is viewed as the second most important criterion for positive feedback.

In all age groups, feedback is viewed as the least important criterion for positive feedback.

Both genders think that timeliness is the most important criterion for positive feedback.

Both genders think that feedback is the least important criterion for positive feedback.

More females have chosen timeliness, product quality, communication, attitude, and feedback as positive feedback criteria than males.

What aspects would you take into account in giving negative feedback to other people after a trade has been done?

In all age groups except the youngest, product quality is viewed as the most important criterion for negative feedback.

In all age groups, feedback is viewed as the least important criterion for negative feedback.

Both females and males think that product quality is the most important criterion for negative feedback.

Both females and males think that feedback is the least important criterion for negative feedback.

Higher proportions of females than males consider attitude, communication, product quality, and timeliness as important criteria for negative feedback.

Higher proportions of males than females consider feedback and reliability as important criteria for negative feedback.

4.7 Time spent on the website

Table 17 shows the responses concerned with time factors in the website.

	All	Female	Male	13-24	25-34	35-44	45-54	55-
Number of responses	224	161	63	55	70	41	30	16
% Aware of time spent	72.9	72.6	73.9	76.2	65.6	82.4	76.0	70.0
% Factors in spending more time in Trade Me:								
Discussion board	71.4	75.2	61.9	72.7	77.1	75.6	66.7	50.0
Watching item	36.6	37.9	33.3	36.4	42.9	36.6	30.0	25.0
Read profile	14.7	16.8	9.5	9.1	22.9	24.4	3.3	0.0
Community sites	9.4	11.2	4.8	5.5	11.4	9.8	13.3	12.5
Others	8.9	8.1	11.1	9.1	5.7	7.3	10.0	6.3
% Think to trade more based on longer spending time in Trade Me:	46.4	47.4	43.5	42.9	54.1	52.9	40.0	40.0

Table 17: Time factors in the website

Are you aware of the time you spend on the website? Yes/No

A clear majority of respondents (nearly 75%) are aware of the time they spend in Trade Me.

The proportion doing so is slightly (1.3%) higher for males than for females.

The proportions vary widely across the age groups, being highest (82.4%) for those aged 35-44 or more and lowest (65.6%) for those aged 25-34.

What makes you stay longer in the website?

- i. Reading other's profile
- ii. Participating in discussion board
- iii. Browsing other community sites
- iv. Waiting for an item
- v. Others please specify _____
(Can be more than one answer)

A majority (50% to 77%) of respondents of both genders and all age groups think that using the discussion board is a factor in spending more time in Trade Me.

A substantial minority (25% to 43%) of respondents of both genders and all age groups think that waiting for an item is a factor in spending more time in Trade Me.

A substantial minority (nearly a quarter) of participants aged 25 to 44 think that reading profiles is a factor in spending more time in Trade Me.

Very few respondents think factors other than those listed affect spending more time in Trade Me.

Only a small minority of both females and males think that reading profiles or visiting community sites are factors in spending more time in Trade Me.

Higher proportions of females than males think that reading profiles, using the discussion board, visiting community sites and watching items are factors in spending more time in Trade Me.

A small number of respondents gave other reasons for staying longer. These include “hunting car parts”, checking listings to “make more attractive”, and “browsing out”.

If you stay longer in the website, do you think you are likely to do more trading (buying/selling/bidding)? Yes/No

The majority of participants aged 25 to 44 and a substantial minority of those in the other age groups think they are more likely to trade based on time spent.

A minority of both males and females think they are more likely to trade based on time spent, with the proportion of females being higher.

4.8 Summary

This chapter has summarised the results of the data analysis and observed some patterns in terms of differences between age and gender.

The major trends found in the data are:

1. There are more females respondents (about 71%) than males
2. The two youngest age groups form about half (51%) of the proportion of the respondent population.
3. The respondents were all discussion board users and may not necessarily represent Trade Me’s users overall.
4. Trading and participating in discussion boards are the major (primary or secondary) activities identified as more common than visiting the community sites.
5. Trading based on interaction on the discussion board is done by almost half of the participants.
6. Community sites are visited by a clear majority (88%) of the respondents with Oldfriends as a site visited more than the others.
7. More females visit Oldfriends website than males.
8. More of the second youngest age group (25-34) find friends in the community sites than do the other age groups.
9. Many respondents think that a photo is important and/or check on the seller’s and/or buyer’s profile and/or the item’s background before transacting a trade.

10. There is a significant difference (17%) between males and females in respect to checking on item's background, with more males than females doing a check.
11. No significant trends are identified amongst the age groups on activities before or after trading.
12. There is a significant difference (7%) between females and males in respect to reading profiles, with more females than males reading profiles.
13. The middle age group (35-44) is more aware of their time spent in the website than other age groups (6-17% difference).

The next chapter discusses the results and relates these to the literature.

5 Discussion

5.1 Introduction

This chapter discusses the findings outlined in the previous chapter. The discussion relates to the six research questions, which are:

1. What kind of activities do users of Trade Me's website engage in?
2. How does the discussion board help with trading on Trade Me?
3. What value do the other community sites have for Trade Me's customers?
4. What activities do users engage in before and after a trade?
5. How do gender differences affect trading on Trade Me?
6. What are the differences in activities of the younger and older age groups on Trade Me?

5.2 The dataset

Out of 224 respondents 161 are females and 63 are males; more than half are aged between 13 and 34; and very few are aged 55 or more. According to Willard (personal communication, March 20, 2007), Trade Me's total population is much more evenly divided between females and males and more evenly spread across age groups, but it is not known whether this applies to the population using the discussion board. In the circumstances, we cannot say that the responses are representative of all Trade Me users.

5.2.1 What kind of activities do users of Trade Me's website engage in?

Although there are plenty of activities which can be described within an online auction website, this study focuses on the discussion board, trading activities and activities in community websites.

The dataset shows that a high number of the users both trade and use the discussion board. The function provided by the discussion board on Trade Me for the community to interact is important to users (30% of respondents identify 'using the discussion board' as their primary purpose upon entering Trade Me, while 60% of respondents identify 'using the discussion board' as a secondary purpose upon entering Trade Me).). **The dataset** also shows a high number interacting in the discussion board.

Almost as many respondents use the discussion board as those who trade on Trade Me.

5.2.2 How does the discussion board help with trading on Trade Me?

The dataset shows a high number of respondents interacting on the discussion board (81%). Users do trade based on interaction on the discussion board (40% of respondents)

In addition to what they already do (trading), having a discussion board provides an opportunity for the traders to do further trading **based on** their interaction with other people. Trading based on their interactions would allow them to obtain more information before buying the item. Cameron and Galloway (2005) pointed out that customers are motivated to directly buy and sell items on the online auctions and the benefits of making

an informal purchase through searching for a potential seller or buyer on a discussion board outweigh the risks (Kollock, 1999).

5.2.3 What value do the other community sites have for Trade Me's customers?

The dataset shows a high number of respondents visit the community sites. More than half visit Oldfriends, Stuff, and Smaps. Activities identified included: finding friends, looking for help, asking for advice, giving feedback, and others.

Although the dataset identifies only 4% of trades as based on interactions in the community sites, a great majority of respondents (88%) visit the community sites. The links to other community websites (Oldfriends, Stuff, Smaps, Findsomeone and Safetrader) provide Trade Me users with the advantage of access to other community websites. Not only can Trade Me's community members interact on the discussion board and trade in Trade Me, they also have the option to use functions provided by other community websites, such as having a safe trading mediator, finding places using digital maps, and looking for old and new friends.

The community website links provide services and fulfill the basic need for interaction for community members. By doing so, they become a useful asset to Trade Me by keeping its users satisfied.

As there are people who still trade on the internet despite various security concerns (Harris Interactive, 2001), it would be interesting to know why these trades are still happening. This study identifies various activities before and after a trade by the respondents. The activities included: a high number of respondents checking the profiles of sellers (79%) and buyers (53%), checking on an item's background (65%) and looking at a visual representation of items being auctioned (96%). More users (61%) check a traders' feedback than other profile aspects. It can be assumed that the system built by Trade Me was well enough built to take account of security issues while still providing sufficient user information.

The feedback mechanism on Trade Me provides information about trader's credibility by showing positive and negative feedback about the trader. A possible side effect of having an in-built feedback mechanism may be that it encourages traders to maintain an acceptable attitude in order to achieve positive feedback, which also counts towards their credibility as a trader.

5.2.4 How do gender differences affect trading in Trade Me?

First of all, the results show that there are more female participants than male in the survey. Latest studies (eMarketer, 2005) find that currently there are more females than males in terms of internet usage. However, the study only covers American participants, not New Zealand. Recent literature (Caspi, Chajut, and Saporta, 2006) also indicates that women may post more messages than men on a discussion board in the educational context and that women also prefer web based communication (Bostock & Lizhi, 2005).

There are, however, no data about gender preferences on discussion boards in the context of an online auction, particularly in New Zealand.

The dataset shows that, although less than half of both genders traded based on their interactions on the discussion board and only a few traded based on their interactions on the community sites, **large numbers of** both genders interact on both the discussion board and the community sites. The dataset shows that males take a more objective view (visit Safetrader, make checks on past trades, and check an item's background); while females who participate on the discussion board take a more subjective view (such as participating in auctions, using discussion boards, checking on personal profiles) and think they are more likely to trade if they stay longer in the website.

Table 18 below shows areas where the proportions of females and males acting in particular ways are more than 5% of the total and are similar or else differ by more than 5%.

Females and males similar	More females than males	More males than females
Primary purposes Secondary purposes Doing both tasks Interacting on the discussion board Checking for trading possibilities on the discussion board Buying and selling based on discussion board interaction Visiting community sites Visiting Stuff Visiting Smaps Visiting Findsomeone Giving feedback Other activities Checking bidder's profile Having attitude as positive feedback criterion Being aware of time spent	Participating in auctions Using discussion board Trading based on interaction on the discussion board Bidding and bidding and winning based on discussion board interaction Visiting Oldfriends Finding friends Asking for advice Checking seller's profile Checking feedback Checking location Thinking visual representation is important Having timeliness, product quality and communication as positive feedback criteria Having product quality, communication, attitude, timeliness as negative feedback criteria Having participating in discussion board, watching item, reading profile and visiting community sites as factors in spending more time Thinking likely to trade more if stay longer	Browsing sites Visiting Safetrader Looking for help Checking past trades Checking item's background Having reliability as negative feedback criterion Having other activities as factors in spending more time

Table 18: Gender similarities and differences

Table 18 suggests the following generalisations about gender differences:

- Females tend to spend more time in Trade Me's website while males tend to spend time outside Trade Me.
- When interacting, females tend to create relationships. These may be trading based on the interaction on the discussion board, visiting Oldfriends, finding friends and asking for advice. On the other hand, males tend to find a direct answer by looking for help. The reason may be that females are more interested to develop a long term relationship over the internet which can include using trading as a communication channel.
- Females tend to take into account different aspects or criteria than males do both before and after a trade. More females than males identify the positive criteria of timeliness, product quality, and communication and the negative criteria of product quality, communication, attitude, and timeliness, whereas more males than females identify the negative feedback criteria of reliability. More females than males think that the visual representation of item is important.
- There may be a relationship between males emphasising reliability more than females as a negative feedback criterion and their visiting Safetrader more than females. The need to feel secure about whether the goods will be delivered after trade, may lead males to use Safetrader for sending payment only after the goods have been received.
- Higher proportions of females think that they trade more if they stay longer in the website, and identify using the discussion board, watching items, reading profiles, and visiting community sites as the factors. This may also be the reason why females do more trading based on the interaction on the discussion board than males.

Although both genders check for trading possibilities on the discussion board, females were identified to trade more than males based on their interactions on the discussion board. Both genders were identified as visiting community sites, with more females visiting Oldfriends and more males visiting Safetrader. Although only a few were identified trading based on interaction in community websites, a high number did visit community websites. Other major gender differences noted in the table are that more females use criteria for giving feedback and think they trade more when spending a longer time in Trade Me.

5.2.5 What are the differences in activities of the younger and older age groups in Trade Me?

The dataset shows that although less than half of all age groups trade based on their interaction in the discussion board and only a few trade based on their interaction in the community sites, there is a high number across all age groups interacting in both the discussion board and the community sites.

Table 19 shows areas where the proportions of younger (34 or less) and older (35 or more) age groups acting in particular ways are more than 5% of the total and are similar or else differ by more than 5%.

Younger and older similar	Younger more than older	Older more than younger
<p>Using discussion board Browsing sites</p> <p>Interacting in the discussion board Selling and bidding based on discussion board interaction</p> <p>Visiting community sites Visiting Oldfriends, Stuff Smaps and Safetrader Finding friends</p> <p>Checking on seller's profile Checking on bidder's profile Checking feedback Checking on item's background Thinking that visual representation is important Having timeliness, product quality and communication as positive feedback criteria Having product quality, timeliness and reliability as negative feedback criteria</p> <p>Having reading profile, browsing community sites and other activities as factors in spending more time Thinking likely to trade more if stay longer</p>	<p>Using discussion board as primary purpose Trading as secondary purpose Doing both tasks Participating in auctions</p> <p>Checking for trading possibilities in the discussion board Trading based on interaction in the discussion board Buying and bidding and winning based on discussion board interaction</p> <p>Visiting Findsomeone Looking for help Asking for advice Other activities</p> <p>Checking location Having attitude as a positive feedback criterion Having communication and attitude as negative feedback criteria</p> <p>Having participating in discussion board and watching item as factors in spending more time</p>	<p>Trading as primary purpose Using discussion board as secondary purpose</p> <p>Giving feedback</p> <p>Being aware of time spent</p>

Table 19: Age group similarities and differences

Table 19 suggests the following generalisations about age differences:

- A higher proportion of the younger age group identified using the discussion board as a primary purpose and trading as a secondary purpose, whereas a higher

proportions of the older age group trades as a primary purpose and uses the discussion board as a secondary purpose. The reason may be that the older age group identifies Trade Me as an online auction website which primarily performs trading activities, whereas the younger ones may tend to browse and search the website.

- The younger age group does more of secondary and primary purposes at the same time using multiple web browsers. The reason may be that the younger age group is more used to **using** the internet (that is, are ‘digital natives’) than the older age group.
- There is an obvious relationship between using the discussion board, checking for trading possibilities in the discussion board, trading based on the discussion board, and participating on the discussion board as factors in spending more time on Trade Me for the younger age group.
- The younger age group visit Finds someone more than the older age group. It may be because more of the younger age group are looking for a partner and friends than the older age group.
- A higher proportion of the younger age group look for help, ask for advice, and do other activities such as “reading news”, “just looking around”, “idly searching” and “finding information”; whereas the older age group seem to give more feedback and be more aware of the time spent than the younger age group. The reasons may be:
 - health and age related factors in the older age group
 - the older age group has other commitments
 - the younger age group is keener on exploring the website and it would be easier for them to not be aware of the time spent.
- A higher proportion of the younger age group uses attitude as a criteria for both positive and negative feedback than the older age group.

As can be seen from Table 19, the younger age group use the discussion board as their primary purpose, and the older age group has trading as their primary purpose. The reason may be that younger users seek information on the item they are looking for from the discussion board, while the older age group directly bid on an item. This also correlates with the study by Sorce et al. (2005) that indicates younger users are more likely to search on the item before buying. However, that study indicates older users are more likely to buy online provided they search on the item beforehand (Sorce et al., 2005), a result that is not confirmed by this study. The table shows that more younger users trade based on their interaction on the discussion board than the older ones.

5.3 Summary

This chapter has built a discussion based on the research questions and existing literature. The next chapter summarises the dissertation.

6 Conclusion and summary

The aim of this study is to find out how the online communities support Trade Me as an online auction website. The research used an online survey and quantitative approach to analyse the dataset. This chapter summarises the main findings and points out major implications

The dataset indicates that a high number of users interact with one another. It identifies that the activities done by the community involve the use of discussion board, visiting community sites, and using other facilities provided by Trade Me such as a customisable auction page, online profiles, and the feedback rating mechanism.

A significant number of users (41%) trade based on interactions on the discussion board. This indicates that collaboration and interaction between community members provide opportunities for the community to trade more. This in turn provides an advantage for using Trade Me as an online auction company.

There are ways the survey questions could have been improved give more results in answering the research questions. Although the results of the survey did not fully answer the research questions, it is hoped that the result of this study contributes to the body of knowledge in the context of online communities in online auction websites. A more thorough and in depth research would use not only quantitative but also qualitative approach.

7 References

- Akula, V., & Menasce, D. A. (2004). An analysis of bidding activity in online auctions. *Lecture notes in computer science*, 3182, 206-217.
- Astleitner, H., & Steinberg, R. (2005). Are there gender differences in web-based learning? An integrated model and related effect sizes. *AACE Journal*, 13(1), 47-63.
- Ba, S. (2001). Establishing online trust through a community responsibility system. *Decision Support Systems*, 31, 323-336.
- Bapna, R., Goes, P., & Gupta, A. (2001). Insights and analyses of online auctions – Exploring the structure and mechanisms for online mercantile processes and bidding strategies. *Communications of the ACM*, 44(11), 42-50.
- Barnatt, C. (1998). Virtual communities and financial services – Online business potentials and strategic choice. *International Journal of Bank Marketing*, 16(4), 161-169.
- Barnes, S. J. & Vidgen, R. T. (2001, January 2-6). *Assessing the quality of auction web sites*. Paper presented at the 34th Hawaii International Conference on System Science, Outrigger Wailea Resort, Island of Maui.
- Bhatnagar, A., Misra, S., & Rao, H. R. (2000). On risk, convenience, and internet shopping behavior. *Communications of the ACM*, 43(11), 98-105.
- Bolton, G. E., Katok, E., & Ockenfels, A. (2005). Bridging the trust gap in electronic markets: A strategic framework for empirical study. *Applications of supply chain management and e-commerce research*, 92(2), 195-216.
- Boneva, B., Kraut, R., & Frohlich, D. (2001). Using e-mail for personal relationships. *American Behavioral Scientist* 45(3), 530-549.
- Bonisteel, S. (2000). *Gender, age, income color online shopping data*. Retrieved March 7, 2007, from http://findarticles.com/p/articles/mi_m0HDN/is_2000_April_21/ai_61620421
- Bostock, S. J., & Lizhi, W. (2005). Gender in student online discussions. *Innovations in Education and Teaching International*, 42(1), 73-85. Retrieved March 31, 2007, from <http://www.keele.ac.uk/depts/aa/landt/lt/docs/bostock%20and%20lizhi%20RIIE420107.pdf>
- Boyd, J. (2002). In community we trust: Online security communication at eBay. *Journal of Computer-Mediated Communication*, 7(3), 1-17.
- Burns, R. B. (2000). *Introduction to research methods*. London: SAGE.
- Cameron, D. D., & Galloway, A. (2005). Consumer motivations and concerns in online auctions: An exploratory study. *International Journal of Consumer Studies*, 29(3), 181-192.

Caspi, A., Chajut, E., & Saporta, K. (2006). Participation in class and in online discussions: Gender differences. *Computer and Education*. Retrieved May 15, 2007, from the ScienceDirect database.

Chong, B., Yang, Z., & Wong, M. (2003, September). *Asymmetrical impact of trustworthiness attributes on trust, perceived value and purchase intention: A conceptual framework for cross-cultural study on consumer perception of online auction*. Paper presented at the 5th International Conference on Electronic Commerce ICEC 2003, Pittsburgh, Pennsylvania, USA. Retrieved October 6, 2006, from the ACM database.

Comscore. (2006). *The score: Online auctions*. Retrieved March 6, 2006, from <http://www.imediconnection.com/content/8854.asp>

Creswell, J. W., & Clark, V. L. P. (2004). *How to design a mixed methods study*. Retrieved April 8, 2007, from <http://www.andrews.edu/Leaderpart/RoundTable/2004/workshops/1a/AU-MM-071504-jwc-vpc.pdf>

Dai, X., & Cude, B. J. (2004). *Differences in internet users' online activities: The influence of their characteristics on what they do online*. In J. Fox (Ed.). (2004). Proceedings of Eastern Family Economics Resource Management Association Annual Conference (pp. 88-100).

Dawson, S. (2006). Online forum discussion interactions as an indicator of student community. *Australasian Journal of Educational Technology*, 22(4), 495-510. Retrieved April 2, 2007, from <http://www.ascilite.org.au/ajet/ajet22/dawson.html>

Dholakia, R. R. & Kshetri, N. (2002). *Gender asymmetry in the adoption of internet and e-commerce*. Retrieved March 7, 2007, from <http://www.crito.uci.edu/noah/HOIT/HOIT%20Papers/Gender%20Asymmetry.pdf>

Doyle, R. A. & Baska, S. (2002). *History of auctions*. Retrieved March 23, 2007, from http://auctioneersfoundation.org/news_detail.php?id=5094

E-government. (2004). *Who uses the internet?* Retrieved April 25, 2007, from <http://www.e.govt.nz/resources/research/channel-surfing-200409/chapter16.html/view?searchterm=gender%20internet>

Emarketer. (2005). *Women online in theUS: A growing majority*. Retrieved May 4, 2007, from http://www.emarketer.com/Report.aspx?code=women_may05&src=report_summary_reports

Erickson, T., Halverson, C., Kellogg, W. A., Laff, M., & Wolf, T. (2002). Social translucence: Designing social infrastructures that make collective activity visible. *Communications of the ACM*, 45(4), 40-44.

Esearch. (1999). *Survey summary – Online auctions*. Retrieved March 6, 2007, from <http://www.esearch.com/currentstudies/4qsummary99.htm>

Fairfax. (2006). *Fairfax to acquire Trade Me*. Retrieved June 3, 2007, from <http://www.scoop.co.nz/stories/BU0603/S00071.htm>

Fallows, D. (2005). *Reports: Demographics*. Retrieved March 7, 2007, from http://www.pewinternet.org/PPF/r/171/report_display.asp

Flavian, C. & Guinaliu, M. (2005). The influence of virtual communities on distribution strategies in the internet. *International Journal of Retail & Distribution Management*, 33(6), 405-425.

Gavish, B., & Tucci, C. L. (2006). Fraudulent auctions on the internet. *Electronic Commerce Research*, 6(2), 127-140.

Gillian, K., Malhotra, D., & Murnighan, J. K. (2005). Towards a competitive arousal model of decision making: A study of auction fever in live and internet auctions. *Organisational behavior and Human Decision Process*. 96(2), 89-103.

Gopal, R. D., Pathak, B., Tripathi, A. K., & Yin, F. (2006). From Fatwallet to eBay: An investigation of online deal-forums and sales promotion. *Journal of Retailing*, 82(2), 155-164.

Guiller, J., & Durndell, A. (2006). Students' linguistic behaviour in online discussion groups: Does gender matter?. *Computers in Human Behavior*, 23(3), 2240-2255.

Guillet, L. C., Crave, S., & Ladame, S. (2006, June 26-28). *How ICT can facilitate trust inside networks of SME: The role of professional virtual communities*. Paper presented at International Conference on Concurrent Enterprising, Milan, Italy. Retrieved March 25, 2006, from [http://www.eamber-esilkroad.org/Projects/408/ICE%202006/Virtual%20Enterprises%20\(Collaborative%20processes\)/p5-55.pdf](http://www.eamber-esilkroad.org/Projects/408/ICE%202006/Virtual%20Enterprises%20(Collaborative%20processes)/p5-55.pdf)

GVU. (1998). *GVU's WWW user surveys: Gender*. Retrieved March 07, 2007, from http://www.gvu.gatech.edu/user_surveys/survey-1998-10/graphs/general/q47.htm

Hamman, R. (2001, June 20-21). *Online community members are real people, too: Focus on users*. Paper presented at the Fourth International Conference on Virtual Communities, Westminster, Central London. Retrieved October 23, 2006, from <http://www.infonortics.com/vc/vc01/slides/hamman.pdf>

Harris Interactive. (2001). *Online auctions 2001 survey summary of findings*. Retrieved June 2, 2007, from <http://www.nclnet.org/shoppingonline/auctionsurvey.htm>

Jackson, L. A., Ervin, K. S., Gardner, P. D., & Schmitt, N. (2001). Gender and the internet: Women communicating and men searching. *Sex Roles*, 44(5-6), 363-379.

Joines, J. L., Scherer, C. W., & Scheufele, D. A. (2003). *Exploring motivations for consumer Web use and implications for e-commerce*. *Journal of Consumer Marketing*, 20(2), 90-108.

Kagel, J. H. (1995). Auctions: a survey of experimental research. In J. H. Kagel & A. E. Roth (Eds.), *Handbook of experimental economics*. New Jersey: Princeton.

Khopkar, T., Li, X., & Resnick, P. (2005, June 5-8). *Self-selection, slipping, salvaging, slacking, and stoning: The impacts of negative feedback at eBay*. Paper presented at the 2005 ACM EC 05 Conference on Electronic Commerce, Vancouver, Canada. Retrieved March 24, 2007, from <http://www.si.umich.edu/~presnick/papers/ec05/>

Koh, J. & Kim Y. G. (2004). Knowledge sharing in virtual communities: An e-business perspective. *Expert Systems with Applications*, 26, 155-166.

Kollock, P. (1999). *The production of trust in online markets*. Retrieved June 16, 2007, from http://www.sscnet.ucla.edu/soc/faculty/kollock/papers/online_trust.htm

Kraft, A., Pitsch, S., & Vetter, M. (2000, January 4-7). *Agent-driven online business in virtual communities*. Paper presented at the 2000 International Conference on System Sciences, Maui, Hawaii. Retrieved March 25, 2007, from the IEEE database.

Larsen, K. W. (2004). *The use of online communities to support business strategy*. Unpublished Master of Computing Dissertation. Unitec New Zealand.

Lee, Z., Im, I., & Lee, S. J. (2000). *The effect of negative buyer feedback on prices in internet auction markets*. Paper presented at the proceedings of the twenty first international conference of information systems, Brisbane, Australia. Retrieved June 2, 2007, from the ACM database.

Li, H., Kuo, C., & Russel, M. G. (1999). The impact of perceived channel utilities, shopping orientations, and demographics on the consumer's online buying behavior. *Journal of Electronic Commerce and the Web* 5(2), 1-23. Retrieved March 6, 2007, from <http://jcmc.indiana.edu/vol5/issue2/hairong.html#Demographics>

Lin, O & Joyce, D. (2004). Critical success factors for online auction web sites. *Bulletin of Applied Computing and Information Technology* 2(3). Retrieved October 4, 2006 from http://www.naccq.ac.nz/bacit/0203/2004Lin_OnlineAuctions.htm

Lucking-Reiley, D., Bryan, D., Prasad, N., & Reeves, D. (2006). *Pennies from eBay: The determinants of price in online auctions*. Retrieved November 8, 2006, from <http://www.vanderbilt.edu/econ/reiley/papers/PenniesFromEBay.pdf>

Maclaran, P. & Catterall, M. (2002). Researching the social Web: Marketing information from virtual communities. *Marketing Intelligence and Planning*, 20(6), 319-326.

Malaga, R. A. (2001). Web-based reputation management systems: Problems and suggested solutions. *Electronic Commerce Research*, 1, 403-417.

Marathe, J. (2002). *Creating community online*. Retrieved October 5, 2006, from <http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan003006.pdf>

- Masters, K., & Oberprieler, G. (2004). Encouraging equitable online participation through curriculum articulation. *Computers and Education*, 42(4), 319-332.
- Mathews, T. (2003). The impact of discounting on an auction with a buyout option: A theoretical analysis motivated by eBay's buy-it-now feature. *Journal of Economics*, 81(1), 25-52.
- Myers, J. (2003). *eBay's "secret sauce" for success*. Retrieved March 25, 2007, from <http://www.jackmyers.com/pdf/10-29-03.pdf>
- Nielsen NetRatings. (2007). *MSN NZ's new website an immediate hit*. Retrieved April 24, 2007, from http://www.netratings.com/pr/pr_070412_NZ.pdf
- NTIA. (2001). *Chapter 3: Online activities*. Retrieved March 6, 2007, from <http://www.ntia.doc.gov/ntiahome/dn/html/Chapter3.htm>
- Owens, L. K. (2005). *Introduction to survey research design*. Retrieved April 1, 2007, from <http://www.srl.uic.edu>
- Peters, C., & Bodkin, C. D. (2007). An exploratory investigation of problematic online auction behaviors: Experience of eBay users. *Journal of retailing and consumer services*, 14(1), 1-16.
- Pitta, D. A. & Fowler, D. (2005). Internet community forums: An untapped resource for consumer marketers. *Journal of Consumer Marketing*, 22(5), 265-274,
- Preece, J. (2001). Sociability and usability in online communities: Determining and measuring success. *Behavior and Information Technology Journal*, 20(5), 347-356.
- Rafaeli, S, & Noy, A. (2002). Online auctions, messaging, communication and social facilitation: A simulation and experimental evidence. *European Journal of Information Systems*, 11(3), 196-207.
- Rafaeli, S., & Noy, A. (2006). Social presence: Influence on bidders in internet auctions. *The International Journal of Electronic Commerce & Business Media*, 15(2), 158-175.
- Schneiderman, B. (2000). Designing trust into online experience. *Communications of the ACM*, 43(12), 57.
- SciVisum. (2006). *It's official – men shop more than women!* Retrieved April 25, 2007, from <http://www.scivisum.co.uk/report/malefemale2006/index.htm>
- Scott, J. K. & Johnson, T. G. (2005). Bowling alone but online together: Social capital in e-communities. *Journal of the Community Development Society*, 36(1), 9-27. Retrieved March 24, 2007, from <http://www.truman.missouri.edu/uploads/Publications/Scott%20and%20Johnson%20Online%20Communities.pdf>

Silvermann, D. (2001). *Interpreting qualitative data: Methods for analysing talk, text and interaction*. London: SAGE.

Sorce, P., Perotti, V., & Widrick, S. (2005). Attitude and age differences in online buying. *International Journal of Retail & Distribution Management* 22(2), 122-132.

Stanoevska-Slabeva, K., & Schmid, B. F. (2000, January 4-7). *A generic architecture of community supporting platforms based on the concept of media*. Paper presented at the 33rd Hawaii International Conference on System Science, Maui, Hawaii. Retrieved October 6, 2006, from the IEEE database.

Stanoevska-Slabeva, K. & Schmid, B. F. (2001, January 2-6). *A typology of online communities and community supporting platforms*. Paper presented at the 34th Hawaii International Conference on System Science, Outrigger Wailea Resort, Island of Maui. Retrieved October 5, 2006, from the IEEE database.

Statistics New Zealand. (2006). *QuickStats about New Zealand's population and dwellings*. Retrieved March 30, 2007, from <http://www.stats.govt.nz/NR/rdonlyres/CCA37BF2-2E49-44D4-82AB-35538608DEFD/0/2006censusquickstatsaboutnzspopanddwellings.pdf>

Steiner, I. (2002). *New eBay metric for counting active auction users*. Retrieved April 29, 2007, from <http://www.auctionbytes.com/cab/abu/y202/m11/abu0082/s04>

Steiner, I. (2006). *Amazon announces new storefront service for small businesses*. Retrieved April 29, 2007, from <http://www.auctionbytes.com/cab/abn/y06/m09/i20/s02>

Stern, B. B., & Stafford, M. R. (2006). Individual and social determinants of winning bids in online auctions. *Journal of Consumer Behaviour*, 5, 43-55.

Straub, D., Gefen, D., & Boudreau, M. C. (2004). *The ISWorld quantitative, positivist research methods website*. In D. Galetta (Ed.). (2005). *Quantitative, positivist research methods in information systems*. Retrieved March 31, 2007, from <http://dstraub.cis.gsu.edu:88/quant/>

Trade Me. (2007). *Site statistics*. Retrieved November 10, 2006, from <http://www.TradeMe.co.nz/Community/SiteStats.aspx>

Trochim, W. M. K. (2006). *Descriptive statistics*. Retrieved April 1, 2007, from <http://www.socialresearchmethods.net/kb/statdesc.php>

Wang, J. C., & Chiu, C. Q. (2005, June 26-28). *Detecting online auction inflated-reputation behaviors using Social Network Analysis*. Paper presented at the 2005 Annual Conference of the North American Association for Computational Social and Organizational Science, Notre Dame, Indiana, USA. Retrieved April 8, 2007, from www.casos.cs.cmu.edu/events/conferences/2005/2005_proceedings/Wang.pdf

Wenger, E. (2001). *Supporting communities of practice: A survey of community oriented technologies*. Retrieved March 29, 2007, from <http://www.ewenger.com/tech/>

Williamson, A. (2005). *What we've learned from community informatics research in New Zealand*. Retrieved November 10, 2006, from http://www.wairua.co.nz/publish/ci_research_nz.pdf

Wolfenbarger, M., & Gilly, M. C. (2001). Shopping online for freedom, control, and fun. *California management review*, 43(2), 34-55.

Wurman, P. R. (2003). *Online auction site management*. Retrieved April 8, 2007, from <http://www.csc.ncsu.edu/faculty/wurman/Papers/Wurman-article.pdf>

Yahoo! Finance. (2007). *Annual report*. Retrieved 30 April, 2007, from <http://biz.yahoo.com/e/070228/ebay10-k.html>

Zacharia, G., Moukas, A., & Maes, P. (1999). *Collaborative reputation mechanisms in electronic marketplaces*. Paper presented at the 32nd Hawaii International Conference on System Science, Outrigger Wailea Resort, Island of Maui. Retrieved October 7, 2006, from the IEEE database.

Zhang, J. (2006). The roles of players and reputation: Evidence from eBay online auctions. *Decision Support Systems*, 42, 1800-1818.

Appendix

Survey questions

To further break down the sub-questions stated in the aim and objectives part of this document into smaller chunks, a list of specific questions was formed. These questions are intended for users who have both traded in Trade Me and participate in the discussion board.

2. Gender: Male/Female
3. Age: ()
4. Location: Australia/New Zealand/Other please specify:_____
5. What is your primary purpose upon entering Trade Me?
 - d. Trading (Buying/Selling/Bidding)
 - e. Using Trade Me's discussion board
 - f. Visiting other community sites, please specify which site(s):_____

*Note: community sites are: Stuff, Find Someone, Old Friends, Smaps, Safe Trader.
6. What might be your secondary purpose upon entering the website?
 - g. Trading (Buying/Selling/Bidding)
 - h. Using Trade Me's discussion board
 - i. Visiting other community sites, please specify which site(s):_____

*Note: community sites are: Stuff, Find Someone, Old Friends, Smaps, Safe Trader.
7. Have you ever tried doing both of your primary and secondary tasks (e.g. using discussion board while watching an item) at the same time by using multiple web sessions/browsers in Trade Me? Yes/No
8. What other task(s) in Trade Me do you do at the same time by using multiple web sessions? (e.g: watching auctioned item while using the discussion board)
9. Have you ever interacted with any of the members in the discussion board? Yes/No
10. Have you ever checked the discussion board for possibilities of trading with other people? Yes/No
11. Have you ever performed trading based on the interaction with other member(s) in the discussion board? Yes/No
12. If yes to Question 10, please specify what kind of trading you have performed based on the interaction with other members:
 - v. Buying
 - vi. Selling
 - vii. Bidding

- viii. Bidding and winning the bid
(Can be more than one answer)

13. Have you ever visited other community websites? Yes/No

*Note: community sites are: Stuff, Find Someone, Old Friends, Smaps, Safe Trader.

14. If yes to Question 12, which site(s) did you visit?

- i. Stuff.co.nz
 - ii. Findsomeone.co.nz
 - iii. Oldfriends.co.nz
 - iv. Smaps.co.nz
 - v. Safetrader.co.nz
 - vi. Others please specify_____
- (Can be more than one answer)

15. If yes to question 12, what activities do you do in the community site(s)?

- i. Asking for advice
 - ii. Looking for help
 - iii. Giving feedback
 - iv. Finding friends
 - v. Others please specify_____
- (Can be more than one answer)

16. Have you ever performed trading in Trade Me based on your interaction with people in the other community site(s)? Yes/No

17. If yes to Question 15, please specify which community website(s):

- i. Stuff.co.nz
 - ii. Findsomeone.co.nz
 - iii. Oldfriends.co.nz
 - iv. Smaps.co.nz
 - v. Safetrader.co.nz
 - vi. Others please specify_____
- (Can be more than one answer)

18. If yes to Question 15, please specify what kind(s) of trading in Trade Me you have performed based on your interaction with other people in the other community website(s):

- i. Buying
 - ii. Selling
 - iii. Bidding
 - iv. Bidding and winning the bid
- (Can be more than one answer)

19. What aspects would you take into account in giving positive feedback to other people after a trade has been done?

20. What aspects would you take into account in giving negative feedback to other people after a trade has been done?
21. Do you check the seller's profile before buying an item? Yes/No
22. Do you check the buyer's or bidder's profile before selling an item? Yes/No
23. What aspect of someone's profile do you normally look at before performing a trade? _____
24. Do you normally find out about the item from other sources before bidding/buying an item? Yes/No
25. Is being able to view a virtual representation (photo) of the item being auctioned important for you before making a bid? Yes/No
26. Are you aware of the time you spend on the website? Yes/No
27. What makes you stay longer in the website?
 - i. Reading other's profile
 - ii. Participating in discussion board
 - iii. Browsing other community sites
 - iv. Waiting for an item
 - v. Others please specify_____(Can be more than one answer)
28. If you stay longer in the website, do you think you are likely to do more trading (buying/selling/bidding)? Yes/No

Consent form



Online Community Supporting Trading Functions in an Online Auction Website.

This consent form will help us get information for a research project looking at how online community affects trading in an online auction website. This research is being done by Ryan Elian Santoso from Unitec, New Zealand, for the completion of Master of Computing System.

I have had the research project explained to me and I have read and understand the information sheet given to me.

I understand that I don't have to be part of this if I don't want to and I may withdraw at any time prior to the completion of the research project.

I understand that everything I say is confidential and none of the information I give will identify me and that the only persons who will know what I have said will be the researchers and their supervisor. I also understand that all the information that I give will be stored securely on a computer at Unitec for a period of 5 years.

I understand that I can see the finished research document.

I am aware that I or my parent or guardian may contact the Principal Researcher Ryan Elian at (09) 4764919/0210330387 or Research Co-ordinator/Supervisor Donald Joyce at Unitec, (09) 815-4321 ext 6065 if I have any queries about the project.

I have had time to consider everything and I give my consent to be a part of this.

Participant Signature: *Date:*

Parent/Guardian Signature:..... *Date:*.....

Project Researcher: *Date:*

This study has been approved by the Unitec Research Ethics Committee from () to (). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretariat (Ph: 09 815 4321 ext.7254). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.