UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

GORDON INSTITUTE
OF BUSINESS SCIENCE
University of Pretoria

Interpersonal online trust in new online social networks

Jonathan Berger

10646583

A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

9 November 2011

ABSTRACT

This research proposed a new model for online interpersonal trust based on eight properties of new online social networks. Two elements were found to have significant contributions. These were the ability for users to create an online personal profile where their real identity is disclosed, and the ability to create connections to other online users. The user's innate propensity to trust was also validated as a moderating force on online trust. These results have significant implications for further academic research and online practitioners.

Online trust has long been understood as one of the biggest barriers to e-commerce and online business. Various online trust models have been developed and a common theme is the lack of an interpersonal trust component that exists in many real world trust models. Interpersonal trust has been excluded because the internet was considered an impersonal medium. This research argues that the internet has changed to become more personal, and that interpersonal trust is now possible online.

The aim of this research was to assist businesses and web designers in understanding drivers of online trust on the new social web. From an academic perspective the aim was to challenge existing online trust knowledge to include interpersonal trust. An online survey was snowball sampled to South African users of Facebook. The survey tested the contribution of eight properties of new online social networks to online trust. The data was analysed using structural equation modelling and the model was found to have a good fit to the data. Further work however is required on the measurement instrument and sampling.

KEYWORDS

Trust, online trust, interpersonal trust, online social networks.

DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

_____

Jonathan Berger

9 November 2011

ACKNOWLEDGEMENTS

I wish to acknowledge a number of people who played a significant role in the completion of this project and throughout the two year MBA programme.

- My wife Karen, who supported and encouraged me every day for two long years. I could not have done this without you. Even when the going got tough you were able to take on more to allow me to continue and succeed. Thank you for being such a wonderful mom to our Joshua.
- My supervisor Kerry Chipp, for her guidance and direction when I thought I had lost my way. Thank you for your energy, time and patience in helping me get to the finish line.
- Craig Miller, who tackled this course with me every step of the way. Thank you for getting me through this madness.
- The staff of the GIBS Information Centre, for assisting with sourcing journals and various inter-library loans. Thank you for always being on hand to assist.
- The respondents, who gave of their time, and sent the survey to their friends to create a snowball.
- To Jennifer Lindsey-Renton who assisted with proofreading and editing this document.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

AJAX	Asynchronous JavaScript and XML
B2B	Business to Business
B2C	Business to Consumer
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMC	Computer Mediated Communication
GOF	Good of Fit
HCI	Human Computer Interaction
i2i	Individual to Individual
ICT	Information and Communication Technology
NNFI	Non-normed Fit Index
OSN	Online Social Network
RMSEA	Root mean square error of approximation
SEM	Structural Equation Modelling
TLI	Tucker-Lewis Index

1. INTRODUCTION

1.1. Research Title

Interpersonal online trust in new online social networks.

1.2. Introduction

Online social networks (OSN) have risen to widespread popularity in the last few years, captivating hundreds of millions of users (Trusov, Bodapati, & Bucklin, 2010). Facebook states that it has over 800 million active accounts, with 50% of their active users logging on at least once a day (Facebook, 2011). An OSN is a digital community that exists on the internet in which users feel an intrinsic connection to other users (Boyd & Ellison, 2009). Researchers initially ignored the OSN phenomenon claiming that it was a short term fad that would ultimately pass (Boyd & Ellison, 2009). This has not been the case however, with many networks growing larger than 100 million users (Silverthorne, 2009). OSNs are now a topical subject in academic literature (Chen & Fong, 2010; Matzat, 2010; Trusov et al., 2009), covering a variety of aspects including e-commerce.

Online social networks are redefining internet usage and electronic communication (Barker, 2009) and it is anticipated that their relevance will continue to grow. Despite their current popularity, online social networks are not new and have existed for many years in the form of user forums, mailing lists, bulletin boards and chat rooms (Chen & Fong, 2010). The reasons for this dramatic uptake are varied but include the improvement in web technology that supports a higher level of user interaction that captivates users (Boyd & Ellison, 2009).

The newer platforms typically have identifiable features not found on traditional platforms such as user profiles, and the ability to share personal information such as photos, opinions, locations and connections to other users (Boyd & Ellison, 2009). These features promote an online interaction that is closer to a real world physical interaction where users are connected to others, are able to share personal information, and can communicate in real time. These specific features are identified in this research. This paper argues that online user interaction within a new online social network is the most engaging yet. This is in stark contrast to the older platforms where users exposed very limited personal information online and withheld their identity, mainly due to privacy concerns, thereby limiting the extent of an online interaction (Joinson, Reips, & Buchanan, 2010).

This research proposes that the rich user experience found on new online social networks contributes to the formation of online interpersonal trust. It is anticipated that a meeting between people on a modern online platform would facilitate the transfer of social cues and trust building as it would in the real world (Warrington, Abgrad, & Caldwell, 2000). Trust can be understood as the expectation that one will not be exploited in a time of vulnerability (Rotter, 1967). Online trust is the digital extension of trust in the offline or real world (Krasnova, Kolesnikova, & Gunther, 2010). Trust is critical to interpersonal relationships and business transactions (Coppola, Hiltz, & Rotter, 2004; Sun, 2010), whether the transaction occurs offline or online (Son, Tu, & Benbasat, 2006). Trust is therefore a critical ingredient in online interactions and a key challenge to online participation in areas such as e-commerce (Chen & Fong, 2010). Therefore it is proposed that interpersonal trust forms online because the interaction between users being is closer to a real world interaction.

The global value of e-commerce transactions is constantly growing, to the extent that e-commerce in the USA will exceed $200 billion in 2011 (Solorzano, 2011). In South Africa, the value of the e-commerce market is already a multi-billion rand segment which is growing as the number of online users increases (SAARF, 2011). E-commerce is anticipated to play more of an important role in the South African economy. However, for e-commerce to thrive, online trust must be well understood (Sun, 2010). The Edelman Trust Barometer found that more and more people will not buy products or interact with companies that they do not trust and that generally consumers are trusting less and less (Edelman, 2011). Therefore there is motivation to develop knowledge on the drivers of trust. This research suggests an online trust model to better understand the contribution of the social aspects of online interaction towards trust.

This paper challenges and extends existing bodies of knowledge on online social networks and online trust and proposes that since the level of user interaction within new online social networks has improved considerably recently, it is possible for users to share a rich online engagement and build interpersonal online trust. This is the first known paper to make this argument. This argument is presented by synthesising the existing literature on online social networks, offline trust and online trust and proposing a new model for online interpersonal trust in new online social networks. The specific properties and functionality of new online social networks that contribute to interpersonal trust are identified and included in a new online trust model.

Numerous frameworks and models of online and offline trust have been developed (Mayer, Davis, & Schoorman, 1995; Son et al., 2006) and the distinction between

offline and online is evident in the literature. Offline trust models generally include the role of interpersonal trust between the parties, while online trust models specifically exclude elements of interpersonal trust (Bart, Shankar, Sultan, & Urban, 2005; McKnight & Chervany, 2001; Pavlou & Gefen, 2004). This was because the internet was perceived as a medium that was incapable of supporting interpersonal trust elements such as social cues (Wang & Emurian, 2005). This paper argues that the recent developments in new online social networks have improved the internet as a communication medium, and that the existing online trust models that ignore interpersonal trust are outdated. Olsen and Olsen (2000) suggested in 2000, before new online social networks were created, that elements of an online interaction were possibly trust building, but were unable to conclusively provide a platform that could actually do so. A new online social network presents one possible platform.

The proposed online trust model has relevance to a variety of contexts that require trust to be successful. These include e-commerce, online collaboration and virtual teams, and evolving technologies such as e-commerce within online social networks. Online trust is a key determinant of online transacting and customer retention so there is motivation to understand online trust to drive e-commerce (Chen & Fong, 2010).

Online social networks are fast becoming the most popular way for users to interact online (Ellison, Steinfeld, & Lampe, 2007). Individuals as well as businesses are typically able to participate in the network and interact with each other, perhaps in the most engaging online experience yet. Online social networking is therefore relevant to both businesses and individuals alike. Kim, Choi, Qualls and Han (2008) found that online community members have stronger commitment to brands, are

more likely to buy the brand repeatedly, spread more positive word-of-mouth information and are more willing to provide useful information to the company when engaged online through an online social network.

1.3. Research Problem

This study proposes an updated online trust model that includes the role of interpersonal trust on the basis that online interaction has improved within new online social networks. The internet has evolved and improved in terms of its user functionality and existing online trust models have not been updated to consider the recent rapid changes in online interaction. This study therefore seeks to contribute to the literature on online trust by considering the latest evolution in online communication, that being within online social networks, and including the role of interpersonal trust.

The research problem in this study is the formation of interpersonal trust in a new online social network. This new kind of online interaction is based on the constant enhancement and evolution in web site technology and can be found in new style OSN platforms such as Facebook (Ellison et al., 2007). The evolution of technology has enabled a rich interpersonal user interaction, not found in previous online platforms. Existing research on online trust has consistently ignored or purposefully excluded the role of interpersonal trust in an online context because of the limitations of the internet as a communication medium and therefore online trust and offline trust are treated differently (Chen & Barnes, 2007). This study argues that online interaction has changed significantly very recently and this has an impact on online interpersonal trust.

1.4. Research Objectives

The research objectives of this study are:

- To identify properties of online user interaction within new online social networks that exhibit a distinct difference from older platforms.
- To propose a new model for online trust that includes the role of interpersonal trust.
- To measure the extent to which the identified properties of new OSNs contribute towards the proposed model of online interpersonal trust.

1.5. Research Motivation

The motivation of this research includes both academic and business implications. From an academic perspective, this research will extend the existing body of knowledge on online trust to include the impact of interpersonal trust into the online trust model, and include the influence of social network sites. Since online social networks have redefined computer mediated communication, there is motivation to update existing literature to include these new developments.

The benefits to business research include understanding the drivers of new online trust as it would form within an online social network or the new social internet. The outcomes of this study would impact e-commerce and web site design, where designers would want to include social elements to improve their interaction with users. This research is relevant to business owners with an online platform, marketers and web platform designers. Online trust is a prerequisite to online transacting so an understanding of online trust can be used to drive e-commerce (Chen & Fong, 2010). There is also a current trend of the internet becoming more

social (Fogel & Nehmad, 2009), so the drivers of online trust within social networks may become applicable to many online platforms.

This research problem was selected as online trust is a gatekeeper to many forms of online interaction (Coppola et al., 2004) and regardless of where a transaction occurs trust is a factor of success (Son et al., 2006; Yoon, 2002). South African companies wishing to engage online on a deeper level with their customers should note the outcomes of this study and employ the determinants of new online trust into their online environments.

1.6. Research Scope and Context

The scope of this research is the development of online interpersonal trust in new online social networks. This study focuses on online trust between individual users of online social networks and excludes business users. While there are many examples of new online social networks on the internet, this study will be limited to users of Facebook as it represents a good example of such a platform. While the context of this research is Facebook, the outcomes are intended to be applicable to other online social network platforms and social websites. Since trust has been known to be affected by cultural differences (Vishwanath, 2004), this study is limited to online social network users of Facebook in South Africa. Further to this, none of the studies included in the literature review were relevant specifically to South Africa, and therefore an opportunity presented itself to produce research in the South African environment.

2. LITERATURE REVEW

2.1. Introduction

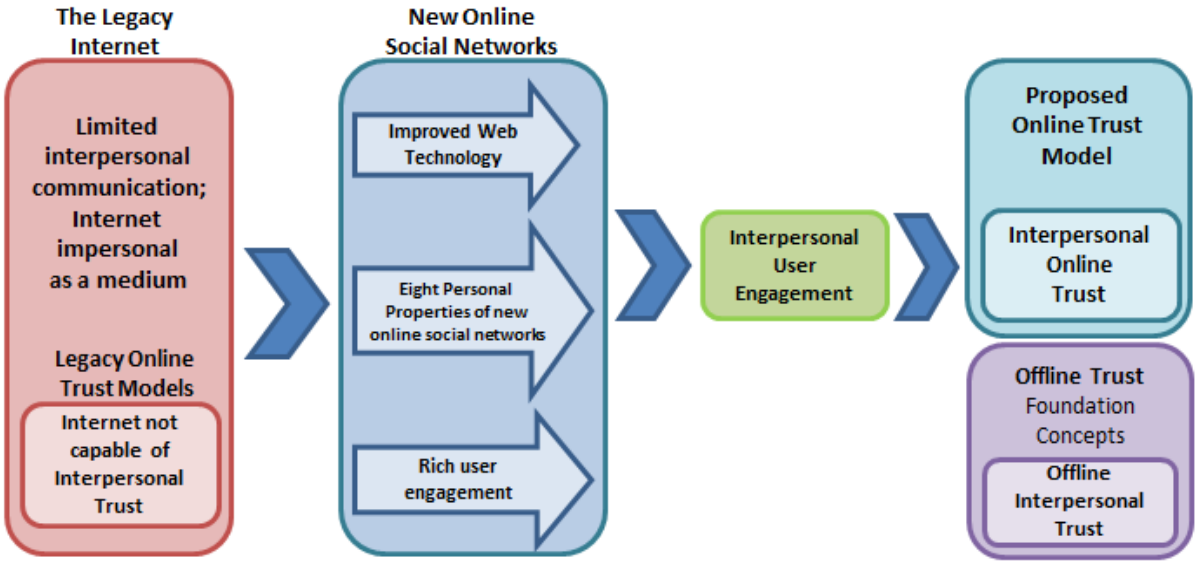
The following literature review assesses existing research on online trust and interpersonal trust as well as identifies gaps that this research aims to fill. The main themes in this study are online interpersonal trust and online social networks. The intention is to demonstrate how online interpersonal trust manifests within an online social network. The trust discussion starts with a presentation of the existing literature on offline trust in order to provide a definition of trust and a generic trust model that comprises foundation constructs. The focus then changes to interpersonal offline trust to provide a definition and insight into the requirements for interpersonal trust to form.

Online trust is then introduced and the main consequence of this section is the exclusion of interpersonal components from online trust models. This exclusion is shown to be caused by the internet historically being considered an impersonal medium and incapable of supporting an interpersonal engagement. The research gap is identified as the possibility of online interpersonal trust forming on an online platform that is capable of supporting an interpersonal interaction, as it is contended that the internet as a medium has improved. New online social networks are proposed as one such online platform that is capable of doing this, and therefore this literature review focuses on online social networks. The properties of newer online platforms that support a rich user engagement are identified and are collated into an eight part feature set that differentiates new and older platforms. These eight properties are then linked to interpersonal trust with the intention of demonstrating

how these features of new online social networks can in fact support an online interpersonal relationship and therefore online interpersonal trust.

The following diagram presents a pictorial view of this literature review together with the sources used.

Figure 1 Pictorial overview of the literature review



Internet as Impersonal	Interpersonal Trust	Social Networks	Online Social Networks	Offline Trust	Online Trust
Gefen (2000) Grabner-Krautner (2002) Granber-Krauter & Kalushca (2003) Jarvenpaa, Tractinsky, & Vitale (2000) Knights, Noble, Vurdubakis and Willmott (2001) Lee, Kang, & McKnight (2007) McKnight & Chervany (1996) Olsen & Olsen (2000) Pavlou & Ba) 2002 Yoon (2002)	Lazar & Preece (2004) Larzelere & Huston 1980) McAllister (1995) Paul & McDaniel (2004) Rempel, Holmes, & Zanna (1985) Rotter (1967) Rotter (1971) Zaheer, McEvily, & Perrone(1998)	Barker (2009) Boyd & Ellison (2009) Dwyer, Hiltz, & Passerini (2007) Ellison, Steinfield, & Lampe (2006) Haythornthwaite (2005) Silverthorne (2009) Trusov, Bodapati, & Bucklin (2010) Wellman, Salaff, Dimitrova, Garton, Gulia, & Haythornwaite (1996) Zeng, Huang, & Dou (2009)	Boyd & Ellison (2009) Barsky & Purdon (2006) Caverlee, Lui, & Webb (2008) Chen & Fong (2010) Ellison, Steinfeld, & Lampe (2007) Fogel & Nehmad (2009) Ganesan & Hess (1997) Kim, Choi, Qualls, & Han (2008) Krasnova, Kolesnikova, & Gunther (2010) Matzat (2010) Pollet, Roberts, & Dunbar (2011) Ridings & Gefen (2004)	Butler (1991) Couch & Jones (1997) Dirks & Ferrin (2001) Doney & Cannon (1997) Dwyer, Schurr, & Oh (1987) Ermisch, Gambetta, Laurie, Siedler, & Urig (2009) Fogel & Nehmad (2009) Mayer et al. (1995) McKnight & Chervany (1996) Mouzas, Hennenberg, & Naude (2007) Nooteboom (2002) Nooteboom & Six (2003) Rotter (1971) Rempel, Holmes, and Zanna (1985) Rosseau, Sitkin, Burt, & Camerer (1998) Wang and Emurian (2005) Zand (1972) Zucker (1986)	Bailey, Gurak, & Konstan (2001) Bart, Shankar, Sultan, & Urban (2005) Bhattacherjee (2002) Chaney (2010) Chen (2003) Chen & Barnes (2007) Coppola, Hiltz, & Rotter (2004) Corritore & Kracher (2003) Gefen (2000) Gefen (2002) Gefen, Benbasat, & Pavlou (2008) Grabner-Krautner (2002) Granber-Krauter & Kalushca (2003) Hoffman, Novak, & Peralta (1999) Kuriyan, Kitner, & Watkins (2010) Jarvenpaa, Tractinsky, & Vitale (2000) Joinson, Reips, & Buchanan (2010) Jones & Leonard (2008) Jones, Wilikens, Morris, & Masera (2000) Knights, Noble, Vurdubakis, & Willmott (2001) Pavlou (2003)

These main themes of this literature review are developed according to the structure shown in the table below.

Table 1 Structure and outline of the literature review

Offline Trust	What is trust?, Trust and trustworthiness, Types of trust, Benefits and relevance of trust, Generic trust model, Natural propensity to trust, Social capital
Interpersonal Trust	What is interpersonal trust?, Why is interpersonal trust relevant?, Interpersonal trust models
Online Trust	What is online trust?, The case for online trust, Online trust is changing, Summary of online trust models
Interpersonal Trust Online	The exclusion of interpersonal trust in online trust models, Similarities between offline and online trust, Early signs of interpersonal online trust.
Social Networks	What is a social network?, Online communities and social networks, Online versus offline social networks, Traditional versus New Online Social Networks
New Online Social Networks	Eight properties that define a new online social networks, Facebook as an example of a new OSN

2.2. Offline Trust

2.2.1. What is Trust?

Trust plays an important role in interpersonal relationships, organisational behaviour, conflict management and business transactions (Sun, 2010). Before a discussion can follow on offline and online trust, the basic definition of what is meant by trust should be covered. The difficulty however is that there is no single comprehensive definition in the literature. Mayer et al. (1995) cite five reasons that summarise the root of the disagreement around a formal definition of trust. These are:

- A general difficulty in defining trust
- Failing to clearly understand the relationship between trust and risk

- Confusing the levels of analysis due to lack of specificity or trust referents
- Failing to consider both the trusting party (trustor) and the party to be trusted (trustee)
- Confusing trust itself with antecedents and outcomes of trust

McKnight and Chervany (2001) showed that trust is viewed differently by different disciplines which further complicates the search for a single definition. To psychologists trust is a personal trait, to sociologists it is a social structure, and to economists it is an economic choice mechanism. While there has been much research produced on trust (Dirks & Ferrin, 2001; Mayer et al., 1995; Zand, 1972; Zucker, 1986), there is no single agreed definition, perhaps due to it being difficult to conceptualise (Sun, 2010), and that trust has been defined in a variety of academic disciplines (McKnight & Chervany, 1996). In an effort to simplify discussions and definitions of trust, elements of trust are often split into antecedents, consequences and dimensions as per Seppanen, Blomqvist, and Sundqvist (2007), but these terms are also often used interchangeably adding to the confusion.

Rempel, Holmes, and Zanna (1985) define trust as “an attitude of confident expectation in an online situation of risk that one’s vulnerabilities will not be exploited” (Rempel et al., 1985, p. 99). Kuriyan, Kitner, and Watkins (2010) provide a relational definition of trust as “a property of relations between two or more social factors”.

These various definitions have been included in order to demonstrate that there is no single definition of trust that spans across all disciplines. These definitions however do frame an understanding of the notion of trust for the discussion to follow. For the

purposes of this research, the definition of trust will follow that of Rotter (1971) where the focus is on trust between individuals, and the key concepts of trust in a relationship involve one party taking risk in depending on another party. This definition captures the essence of trust in the context of this research as an online interaction involves two parties where one party relies on the actions of another party and takes on significant levels of risk. The central properties of trust are therefore expectation, risk and vulnerability.

Wang and Emurian (2005) summarise four characteristics of trust that are general to most researchers. These are trustor and trustee (a trusting party is the trustor and the party to be trusted is the trustee), vulnerability, produced actions and subjective matter. These four characteristics are employed in this study and are relevant to a study on online trust. In an online interaction there are typically two parties who interact and are vulnerable to risk due to the impersonal nature and anonymity of the internet as a communication medium. Neither party can be certain of the other party's identity, and therefore there is an element of uncertainty and subjectivity. The enabler for a successful interaction between parties in this difficult situation is trust.

2.2.2. Trust and Trustworthiness

The terms trust and trustworthiness are often used interchangeably but this is not correct. Trustworthiness has been defined as telling the truth when there is motivation to lie (Mayer et al., 1995). Trust occurs on the side of the trustor, and trustworthiness on the side of the trustee. Trustworthiness deals with beliefs, while trust deals with willingness which is a behavioural intention (Gefen, 2002). Therefore, when discussing trust, the concepts of trust and trustworthiness are often used interchangeably incorrectly. Trustworthiness is generally understood to have

four main components; ability (ability and competence to do what the trustor needs), benevolence (the faith that the trustee will act in the trustor's best interests), integrity (honesty) and predictability (of the trustee's behaviour) (Gefen, Karahanna, & Straub, 2003; McKnight et al., 1998). These four dimensions of trustworthiness are used by multiple authors (Chen & Dillon, 2003; Mayer et al. 1995) to describe the foundations of building trust and will be used later in this discussion as key inputs to building interpersonal trust. The elements of trustworthiness provide clear inputs to forming trust that are adaptable to many contexts. This flexibility gives them their power. Despite online communication and trust evolving, these elements remain relevant and can be adapted to this discussion.

2.2.3. Types of Trust

There are a variety of trust types and they are clarified here in order to assist with the discussion later on. Trust can be considered from three different perspectives. From a psychological perspective, trust is based on an individual's personality which is founded on the individual's background and life experiences (McKnight & Chervany, 2001). This affects the individual's disposition/propensity to form trust and is therefore known as dispositional trust (McKnight & Chervany, 2001). From a sociological perspective, trust is a social structure that is constructed from within a situation and is known as institutional trust (Tan & Sutherland, 2004). The final dimension of trust forms from a social psychological perspective, which argues that trust is understood in terms of expectations of one party on another and the risks involved (Lee & Turban, 2001). This dimension of forming trust is known as interpersonal trust which relates to interactions amongst individuals and forms the main subject of this paper.

An alternate set of classifying trust types are institutional, technological, characteristic, and process-based trust (Kuriyan et al., 2010). None of these four types focus on the interpersonal component and therefore are leaving out a fundamental aspect of human interaction. All business and personal interactions can be reduced to interactions between people, and therefore this research argues that interpersonal trust should feature. Institutional trust is about the relationship between individuals and organisations while technological trust forms between individuals or institutions and technologies from a reliability or security perspective. These two trust types do not have a personal component and ignore the social element of human interaction. When people interact, they are interacting on a personal level despite the presence of a brand (institution) or a digital certificate (technology) and therefore interpersonal trust should be present.

Characteristic based trust is linked to a person's background characteristics such as ethnicity (Kuriyan et al., 2010) which has some personal elements to it, but does not have the same depth and focus as interpersonal trust. Process based trust forms when transactions occur between actors such as the exchange of gifts (Kuriyan et al., 2010) and is prehaps currently the most relevant in online business and e-commerce. Process trust focuses on how each party conducts itself throughout the transaction which is relevant when the parties are unknown to each other such as in an online environment.

These various trust types have been included as they form key aspects of trust models. There are many trust models in the literature; each one typically focusses on one type of trust. This paper focusses on interpersonal trust in the online realm, but

there are online trust models that specifically refer to institutional, technological, characteristic, or process-based trust.

2.2.4. Benefits and Relevance of Trust

Trust affects how people interact with their surroundings. The value of trust is that it enables economic transactions between people and can reduce transaction costs (Nooteboom, 2002). With new forms of information and communication technology (ICT) and computer mediated communication (CMC) online trust is important. Knights, Noble, Vurdubakis and Willmott (2001) argue that trust has become more important in ICT as the face to face meeting seldom happens. While CMC has many benefits such as speed and convenience, it is limited by the fact that people do not meet face to face, and various elements of the communication such as physical social cues are lost. This is the reason that trust is important to users of CMC, as it fills the gap left by the medium for decision making. As CMC changes and improves, trust models must be updated.

Trust is central to relationship marketing and commercial relationships, and commitment and trust lead to productive cooperative relationships (Morgan & Hunt, 2004). Trust reduces risk and complexity both online and offline in the decision making process. The more a person trusts a situation, the less information they need to make a decision (Paul & McDaniel, 2004) and online users who lack trust will refrain from engaging in e-commerce activities (Gefen, 2002). Therefore trust is a critical ingredient to building sustainable business relationships and can be the differentiator between successful and failed business ventures. Perhaps the largest focus on the impact of trust in the business context is the focus on behaviour, specifically consumer behaviour and marketing (Peter & Olsen, 2005). Trust is

therefore relevant to any business discussion and certainly in the online space where levels of vulnerability and risk are perceived to be higher.

2.2.5. A Generic Trust Model

While there are many trust models, each typically focussed on a particular type of trust, there are commonalities between them. These commonalities can be grouped together to form a generic trust model that brings together the salient components between the models. The aim of seeking a generic trust model is to identify a base set of constructs that can be used to form a new proposed trust model.

Bhattacherjee (2002) summarised much of the literature on trust and sought to find a concise set of dimensions of trust. His research cited multiple authors and a large variety of trust dimensions, many of which had the same meaning but used a different term. For example ability and competence have the same meaning (Bhattacherjee, 2002) which means that models can be simplified and reduced to common generic terms. Bhattacherjee (2002) recommended the model proposed by Mayer et al. (1995) as a generalised parsimonious trust model which included only ability, benevolence and integrity as the key elements. These three elements are conceptually distinct and tap into different aspects of affective and cognitive aspects of trust (Bhattacherjee, 2002).

The following table summarises a brief collection of research papers and the antecedents that trust is based on. It can be seen that multiple authors (Jarvenpaa, Tractinsky & Vitale, 2000; Mayer et al., 1995; McKnight, Cummings & Chervany, 1998) cite ability, benevolence and integrity in their models, irrespective of the context. These three constructs come together to form a generic trust model that can be applied to a variety of contexts and trust types.

Table 2 Summary of trust models that include ability, benevolence and integrity

Authors	Context	Trust Dimensions
Butler (1991)	Interpersonal trust between corporate managers	Availability, competence, consistency, discretion, fairness, integrity, loyalty, openness, promise fulfilment, receptivity
Couch and Jones (1997)	Interpersonal trust	Trust inventory
Doney and Cannon (1997)	Trust in buyer – seller relationships	Credibility, benevolence
Jarvepaa et al. (2000)	Consumer trust in an internet store	Ability, benevolence, Integrity
Larzelere and Huston (1980)	Interpersonal trust in close relationships	Benevolence, honesty
Mayer et al. (1995)	Unspecified	Ability, benevolence, integrity
McKnight et al. (1998)	Individual trust in organisations	Benevolence, competence, honesty, predictability
Rempel et al. (1985)	Trust in spousal relationships	Predictability, dependability, faith
Zaheer, McEvily and Perrone (1998)	Inter-organisational and interpersonal trust	Reliability, predictability, fairness

The interpretation of these three key terms is as follows:

- Ability / competence – is the belief in the trustee's ability to perform as expected by the trustor. This concept is context specific. For example you may believe in a doctor's ability in a medical situation but not in financial planning.
- Benevolence – belief that the trustee will not act opportunistically, even when given the opportunity to do so. This concept is linked to faith and altruism in a relationship.
- Integrity – belief that the trustee will be honest and keep their promise and fulfil their obligations. This is also linked to the confidence that the trustee will behave ethically with honesty and reliability. Integrity is also context

dependant as the expectations of users differ between contexts. Integrity is similar to honesty, predictability, reliability and dependability that are proposed by various authors in the literature (Bhattacherjee, 2002).

Ability, benevolence and integrity come together to form a generic trust model independent of context that can be applied to potential models. In this research these three trust elements will be used as the foundation of a new online trust model and their relevance and adaptation to an online context will be addressed.

2.2.6. Natural Propensity to Trust

Many offline and online trust models acknowledge the role of the trustor's personality in generating trust (Jones & Leonard, 2008). The common trait that is brought into trust models is the person's natural propensity to trust (Jones & Leonard, 2008; McKnight et al., 2002). Hofstede (1980) found that individual personality traits such as cultural background, personality type and developmental experience affect an individual's perception and these would therefore impact a person's propensity to trust (Lee & Turban, 2001). While trust forms as an outcome of a combination of antecedents, the role of the trustor's personality acts as a moderating force on the outcome. Therefore any trust model that involves an individual user would be incomplete without considering the role of the individual's personality in the form of their natural propensity to trust.

2.2.7. Social Capital

Social capital is the glue that binds online communities together (Chi, Chan, Seow, & Tam, 2009). An integral part of social capital is trust. Social capital is a mixture of social trust, goodwill and mutual support, shared language, shared norms and

shared obligations, from which value is derived (Chi et al. 2009). Ellison et al. (2007) showed that social capital allows a person to draw on resources from other members of the networks in which the user belongs, thus bringing the discussion of social networks and trust together.

Chi et al. (2009) looked at whether offline social capital can be transplanted online. They concluded that it is possible to transplant social capital online, however the requirement is the platform having the capabilities to facilitate this transition. This has previously not been the case with the internet, but the internet has improved and new OSNs are one example. Therefore it is anticipated that new style OSNs would support the transfer of social capital online and therefore trust. This supports the main proposition in this research that interpersonal trust may be formed in new online social networks.

2.2.8. Conclusion to the Literature Review on Offline Trust

The literature review on offline trust sought to provide a definition of trust and clarify the different types of trust that exist. Trust is important as an enabler to both business and social transactions. While trust and trustworthiness are difficult concepts to define absolutely, they are best understood in terms of expectation, risk and vulnerability between people. From the various definitions of trust the common elements of interest are ability, benevolence and integrity which make up a flexible generic trust model relevant to multiple contexts. The individual's personality affects how trust is perceived and therefore this should be considered in any proposed trust model.

2.3. Interpersonal Trust

2.3.1. What is Interpersonal Trust?

A specific form of offline trust is interpersonal trust. While there is a host of literature focussed on interpersonal trust, the fundamental principles refer to the original work of a handful of founding authors. Perhaps the most common definition of interpersonal trust was given by Rotter (1967) as “an expectancy held by an individual or group that the word, promise, verbal or written statement of another individual or group can be relied upon” (p. 444). Mayer et al. (1995) built upon this definition of interpersonal trust and argued further that Rotter’s definition refers more to a general form of trust and is linked to a person’s natural propensity to trust which is the willingness to trust others. Mayer et al. (1995) offered a revised definition of interpersonal trust as a “willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (p. 712). Being vulnerable means that there is something of importance to be lost. Making oneself vulnerable is taking a risk, however trust is not about taking a risk but rather about the willingness to take risk. From this definition, interpersonal trust can be understood to be about risk, expectation, vulnerability and the interaction with another individual.

Furia (1996) based her definition of interpersonal trust on the context of when one party places their interests under the control of another individual. This was done with the expectation of gaining a desired outcome from which the potential negative consequences of violated trust are greater than the value of the potential desired

outcome (Furia, 1996). This follows the definition as presented by Zand (1972) that interpersonal trust involves risk, expectations, vulnerability and control.

2.3.2. Why is Interpersonal Trust Relevant?

Interpersonal trust is relevant in a variety of business contexts (Mayer et al., 1995). In the online context, interpersonal trust is relevant to any form of online interaction such as auctions, classified adverts, social networking, professional personal profiles, virtual work teams and any context where people need to interact online. These interactions require interdependence as people depend on each other to get things done (Ryan, 2004). It is therefore surprising that despite its importance, online interpersonal trust has not been widely studied.

The primary reason for this is that many authors contended that the internet was not capable of supporting an interpersonal relationship as the medium was limiting (Gefen, 2002; Grabner-Krautner, 2002). It is further interesting that the internet has been successful as a medium in spite of this limitation. Perhaps this may have been due to the elevated roles of institutional and process based online trust to overcome risk and vulnerability concerns. The dependence between parties requires trust, which reduces risk in these interactions and relationships (Paul & McDaniel, 2004).

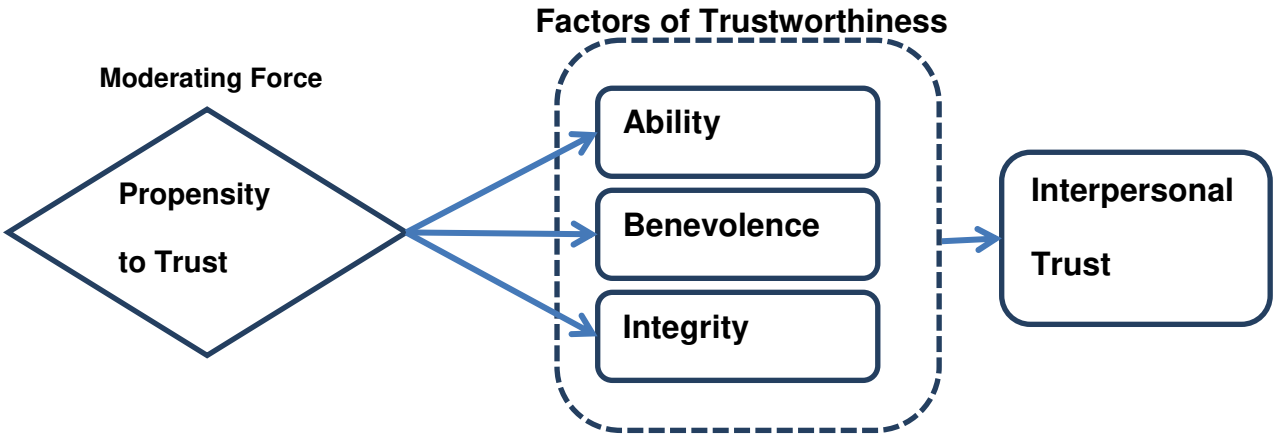
In an effort to reduce risk, various control structures have been designed to regulate and enforce against broken trust such as contracts, internal processes and reward systems, however all of these are impersonal, ineffective and are regarded as weak (Mayer et al., 1995). In the online context these control structures would manifest in the form of institutional features such as digital certificates and escrows, or process trust such as disclosing information about the platform owner.

The important point is that interpersonal trust between actors reduces the need for regulating structures to govern relationships and this is anticipated to be as true in the online realm as it is in the real world. Should a user trust the other user in an interaction, the mediating platform would play less of a role in generating trust. Therefore it is anticipated that interpersonal trust transcends and supersedes the roles of both process and institutional trust and is the most influential of the trust types presented in this literature review. Therefore it is expected that generating an online trust model based on interpersonal trust would be more influential than those based on institutional and process trust and would be very useful to online business practitioners.

2.3.3. Interpersonal Trust Models

Mayer et al. (1995) presented a comprehensive model of interpersonal trust that included factors of trustworthiness as well as the trustor's natural propensity to trust. While there are many proposed models of trust, Mayer et al. (1995) rejected any components that are not explicitly linked to risk such as cooperation, confidence and predictability. Mayer et al. (1995) proposed the following model which includes just three inputs and the trustor's propensity to trust as a parsimonious model of trust. This model is presented as it will be used as the basis for the proposed online interpersonal trust model. The trustor's propensity is similar to the trusting belief and intention that Granber-Krauter and Kalushca (2003) highlighted as key components in the generation of interpersonal trust. An overview of this model is shown in the figure below.

Figure 2 Parsimonious model of interpersonal trust as per Mayer et al. (1995)



The above model appears to lack an emotional or personal component but the factors of trustworthiness combine to form interpersonal trust. McAllister (1995) argued that trust must have an emotional component (known affective trust) as it is not possible to make a trust decision based purely on rational decision making. Affective trust is built on emotional ties between individuals and is similar in this way to interpersonal trust. This demonstrates that researchers were aware of the impact that an interpersonal trust component would have in a model and this hinted at the start of interpersonal elements being included in trust models.

While the Mayer et al. (1995) model includes elements of trustworthiness and uses generic constructs that lend themselves to being adapted to multiple contexts, various authors have proposed newer models based on alternate constructs. Hall (2009) proposed a model based on the three elements of expectations, needs and promises and Nooteboom and Six (2003, p. 129) suggested a model based on five elements including integrity, competence, consistency, loyalty and openness. Furia's (1996) model included five components of information sharing, reducing controls, allowing for mutual influence, clarifying mutual expectations, and meeting

expectations. These three models also acknowledged the role of the trustor's propensity to trust similar to that of Mayer et al. (1995).

The model from Mayer et al. (1995) was chosen as the most suitable base model of interpersonal trust due to its clarity, simplicity, and ability to be adapted to an online context. This brief summary of interpersonal trust models aims to demonstrate the similarity between a generic trust model and the interpersonal trust model proposed by Mayer et al. (1995) in that they both include the constructs of ability, benevolence and integrity. This similarity could cause the incorrect understanding that general trust and interpersonal are identical. This is not the case, where interpersonal trust deals specifically with an interaction between individuals. The consistency between a general trust model and the interpersonal trust model from Mayer et al. (1995) facilitates a simpler extension of the model to other contexts such as online interpersonal trust. The power of this model is its flexibility as the constructs of ability, benevolence and integrity can be adapted to multiple contexts. The generic trust model and the interpersonal trust model differ in the inputs that drive the constructs of ability, benevolence and integrity.

2.3.4. Conclusion to Literature Review on Interpersonal Trust

The literature review on interpersonal trust defined the key elements of interpersonal trust as found in the literature. The various interpersonal trust models were summarised resulting in the main elements of interpersonal trust being uncovered to be ability, benevolence, integrity and natural propensity to trust.

2.4. Online Trust

2.4.1. What is Online Trust?

Just as trust plays a fundamental role in relationships and transactions where risk or uncertainties appear in physical relationships, trust is important in online relationships (Joinson et al., 2010). The main difference between offline and online trust is the lack of physical interaction between the actors in the relationship (Yoon, 2002) and the role of the internet as the mediating platform. Lee, Kang and McKnight (2007) sought to understand whether offline trust would be automatically transplanted online. They found this not to be the case, mainly because of a lack of face to face contact to convey tangible trust cues (Lee et al., 2007). Online trust is therefore difficult to develop as there is an absence of simultaneous existence in time and space, no human network attributes - including audio, visual and sensual, and no learning or feedback (Lee et al., 2007).

There are a variety of elements of online trust that have been identified in the literature, many of which relate to different contexts much like they do with offline trust. Offline and online trust models therefore share many similarities including structure and components; however there is one consistent difference. Online trust models ignore or actively excluded the role of interpersonal trust because personal interaction in computer mediated communication was considered a limited mechanism (Grabner-Krautner, 2002).

Wang and Emurian (2005) provided some insight into the differences between online and offline trust using three aspects of relationships online. In an offline relationship the trustor and trustee could be anyone such as people or companies, while online the trustor is typically a customer and the trustee an online store. The concept of

vulnerability online generally refers to the loss of privacy or money while for offline this concept is broader. Thirdly, the actions that result from online trust are typically an online transaction such as a purchase in an online store. Online interactions therefore differ from the real world and therefore trust formation differs.

Online and offline trust differ because communication over the media differ. The internet has provided a platform for people to interact without seeing each other, such as in the case of global teams, or advisor/advisee relationships and has enabled disintermediation such as the removal of travel agents from airline bookings (Olsen & Olsen, 2000). While this has created much opportunity and enabled many forms of new business, it has also introduced complexity where actors in the relationship are physically disconnected and lack face to face interaction (Olsen & Olsen, 2000). As early as the year 2000 Olsen and Olsen (2000) predicted that a stage of re-intermediation on the internet would occur in the future which would include individual-to-individual (i2i), business-to-business (B2B) and business-to-consumer (B2C) relationships through better online technology. This has come to fruition in the way that the internet is used to organise people and businesses in social networks online.

Friedman, Kahn Jr and Howe (2000) acknowledge that there are distinct differences between online and offline interactions and the generation of trust. Since CMC takes place over wide geographies, common social cues such as social history are unlikely to play a role (Friedman et al., 2000). One of the biggest challenges is that the internet allows people to hide behind the medium and change identity, therefore risk and vulnerability are relevant which justifies the need to understand online trust.

2.4.2. The Case for Online Trust

Regardless of where a transaction occurs, whether online or offline, trust is a factor of success (Son et al., 2006; Yoon, 2002). Coppola et al. (2004) and Slyke, Belanger and Comunale (2004) demonstrated that trust is important for successful online interactions, while Warrington et al. (2000) noted that online trust is central to e-business. Trust has repeatedly been identified as a barrier to users engaging in online commerce (Sun, 2010; Wang & Emurian, 2005) and technology adoption (Li, Hess, & Valacich, 2008; Pavlou, 2003). Paul and McDaniel (2004) found that trust aids in complexity reduction and is a foundation to effective collaboration and reduces transaction costs (Jones, Wilikens, Morris, & Masera, 2000).

Salo and Karjaluoto (2007) also agreed that trust is critical to the success of online transactions and that companies which transact online should focus on incorporating trust building aspects into their user experience. This is consistent with the central argument of this paper, which seeks to determine which aspects of an online user experience contribute to building trust.

2.4.3. Online Trust is changing

A host of online trust models have been presented in this literature review, with each one catering either to a specific context, or online situation. The internet is becoming more social (Fogel & Nehmad, 2009) and online social networks have achieved widespread success. The online trust models that were based on pre-social networking sites should therefore be updated.

It is anticipated that online trust research would start to include the role of interpersonal online trust. Where previously the focus of online trust was institutional, the focus is expected to shift towards interpersonal as the users are familiar with

each other on the social internet. This follows the findings of Son et al. (2006) who showed that institutional trust, based on the perception of the platform, is paramount when parties in the transaction have limited knowledge of each other, and that business transactions rely more on interpersonal trust than on inter-organisational trust (Mouzas, Hennenberg, & Naude, 2007).

2.4.4. Summary of Online Trust Models

A summary of existing online trust models is included to demonstrate both what their focus has been on and to highlight that their focus has not been on interpersonal trust between users. There are a host of online trust models in the literature that differ widely in terms of inputs or components. This could be because online trust is approached from different perspectives, specifically changing focus based on the context of the study. Even where there are commonalities in the context of online trust, such as trust between an online consumer and an online store, researchers' models differ widely. While the models contrast, what is common across most of them is the fact that interpersonal trust is either completely ignored or purposefully excluded, generally on the basis of authors contending that online interactions are disintermediated and therefore impersonal.

The following broad definitions assist in understanding this summary. Process based trust refers to elements of an online platform that assist in building trust by virtue of the processes that are followed. In an online store context this would include disclosing the website owners, past performance such as size, longevity and sales figures, and affiliations with any respected organisations. Characteristic based trust focuses on similarities of personal characteristics between the parties such as background and ethnicity. Characteristic based trust is similar to interpersonal trust.

Institutional based trust refers to properties of the online platform that would assist the user in gaining a sense of trust. For an online store these would escrow services, insurance, member screening, third party assurance seals such as digital certificates and privacy policies (Pavlou & Gefen, 2004), as well as a visually attractive site, accurate product information, a simple navigation system, and responding to customer queries promptly (Cyr, 2008).

With the rise of e-commerce, the issues of privacy and security online became the main detractors of trust (Tan & Sutherland, 2004). The focus of online trust centred on the platform or the website itself which is institutional trust as this appeared to be the only source of trustworthiness. It has become evident to this researcher that this is likely where the focus on interpersonal trust factors were lost, because as users moved online, they found the medium itself to be unfamiliar and uncertain, and therefore untrusting.

The following table presents a date ordered summary of various online trust models. The main focus of each model is included, as well as the key model components. The last column clearly shows whether the researcher included an interpersonal component into the model. Three main themes in online trust models emanate from this summary table. Models either depend on institutional trust based on web site properties such as design (Bailey, Gurak, & Konstan, 2001; Chen & Barnes, 2007; Jarvenpaa et al., 2000; Shankar, Urban, & Sultan, 2002; Son et al., 2006; Wang & Emurian, 2005), or an offline type of model involving trust elements such as ability/competence, benevolence, integrity, and propensity to trust (Jones & Leonard, 2008; Lee & Turban, 2001; McKnight & Chervany, 2001; Pavlou & Ba, 2002; Yoon, 2002). Even in the case where the model depends on the generic properties of

ability, benevolence and integrity, the focus has not been related to interpersonal trust.

This table therefore provides a case for this research, in that almost all of the existing literature rejects or ignores the role of interpersonal trust. While a few of the models do at least mention interpersonal trust (Cheskin Research, 2000; Jones & Leonard, 2008; McKnight & Chervany, 1996; McKnight et al., 2002; Tan & Sutherland, 2004; Yoon, 2002), they do not relate to trust between individual users in the context that this research focuses, and rather refer to a form of trust between a user and a platform. In this way, these references to interpersonal trust are in fact closer to institutional trust but with some common elements of interpersonal trust.

Table 3 Summary of Online Trust Literature

Author & Year	Main Focus of Online Trust Model	Antecedents / Model Elements	Interesting Outcomes	Interpersonal Trust Component
Hoffman, Novak, and Peralta (1999)	Privacy & Security		Trust difficult to form online due to security / privacy concerns	None
Cheskin Research (2000)	Four aspects of online trust- based on user experience	Transactional security – warranties, privacy, refund policy; Web site properties – brand reputation, product range; Search functionality , navigation, speed; Personal variables, familiarity, satisfaction, receptivity		Familiarity between users generates trust
Tan and Thoen (2000)	Party Trust Control Trust	Party trust is trust in another party, including aspects of action and information. Control trust is related to a systemic control mechanism.	Online users will only engage in an online transaction if the level of trust exceeds their personal trust threshold	Party trust
Jarvenpaa et al. (2000)	Perceived reputation, attitude, and risk perception of the trustee.	Context of an online Store. Focuses on properties of the online store	Ignores interpersonal components	None
Bailey et al. (2001)	Four sources of trust: resumptions or general beliefs, surface inspection (appearance or visual physical appearance), experience including repeated previous successful exchanges, and institutions which are third parties that produce trust through what they report about an exchange partner.	Seven dimensions of trust in computer mediated exchanges: • attraction – physical or non-physical characteristics • dynamism – additional communication whether oral, visual or written • expertness – exchange partners' relevant skill ability or knowledge • faith – that the exchange partner will fulfil their side of the deal • intentions – in terms of perceived goals and objectives of the exchange partner • localness – exchange partner's ideals, beliefs or geography • reliability – an exchange partner's measure of dependability, reliability consistency, predictability	Ability, integrity, reliability, predictability as key elements of institutional trust	None

Author & Year	Main Focus of Online Trust Model	Antecedents / Model Elements	Interesting Outcomes	Interpersonal Trust Component
Lee and Turban (2001)	Four elements	Consumer trust model depends on trustworthiness of the internet merchant, trustworthiness of the internet as a medium, contextual factors (security, third-party, certification) and other factors (company size, demographic variables). All of this is affected by the propensity of the user to trust.	Based on Ability Benevolence and Integrity. Links institutional trust with an interpersonal component. Interpersonal trust between user and vendor, not between users	None
McKnight and Chervany (2001)	Dispositional trust, institutional trust and interpersonal trust	Conceptual level includes disposition towards trust (psychology), institution based trust (sociology), E-commerce provides limited ability for interpersonal interaction. Dispositional is not related to interpersonal, and is a personality trait independent to each user.	Four second order categories of competence, predictability, benevolence and integrity. Limited ability for interpersonal trust online but suggests benevolence, competence, integrity & predictability	Limited ability for online interpersonal trust
Yoon (2002)	Three parts to building online trust	Affective, cognitive and behavioural.	Affective trust has an interpersonal aspect	Affective trust
McKnight et al. (2002)	Privacy, risk and insecurity	Dispositional trust, institutional based trust, interpersonal trust based on trusting intentions and trusting beliefs	Interpersonal trust based on trusting intentions and trusting beliefs. No way to influence interpersonal trust, as it relates to the personality of the users.	Trusting intentions and trusting beliefs
Shankar et al. (2002)	Stakeholder perspective of customers, suppliers, distributors, regulators, stockholders, partners, employees	Web site characteristics, user characteristics, other characteristics, intent to act, satisfaction and loyalty, firm performance	Online trust closely intertwined with offline trust. In offline trust the object of trust is the company or a person. In offline trust the object is the medium Online trust evolved from an institutional measure of security and privacy, to a multidimensional and complex construct	None
Pavlou and Ba (2002)	Focus on once off online interactions	Familiarity, calculativeness and values. Benevolence and Integrity	Benevolence not found in once-off online interactions	None Specifically excluded
Granber-Krauter & Kalushca (2003)	Institutional (system trust), personal and interpersonal	Dispositional, trusting beliefs, trusting intentions, trust-related behaviours)	Interpersonal trust should be excluded from online trust models	None Specifically excluded

Author & Year	Main Focus of Online Trust Model	Antecedents / Model Elements	Interesting Outcomes	Interpersonal Trust Component
Chen (2003)	Trust in an internet vendor	Ability, benevolence, integrity	Competence, integrity and benevolence towards the vendor Consumer characteristics, website infrastructure, firm characteristics, interactions	None
Tan and Sutherland (2004)	Dispositional, institutional and interpersonal	Dispositional is psychological, institutional is sociological, and interpersonal is social psychology.	The user / consumer must be the centre of the trust argument	user as the centre of an online transaction
Pavlou and Gefen (2004)	Institutional Trust	3rd party guarantees – such as buyer feedback, escrow payment services, credit card guarantees	Institutional trust will yield importance to interpersonal online trust	None
Wang and Emurian (2005)	Focus on web interface design	Graphic design, structure design, content design, social cues	Social cues but of a web site not of a person	None
Son et al. (2006)	Institutional, Process	11 elements.	Institutional trust the only way to gain trust in an unmediated platform	None
Salo and Karjaluoto (2007)	Trusting beliefs, intentions & behaviour, systems trust Dispositional trust, situational decision to trust	Internal and external elements	Companies operating online should focus their attention on the trust formation process	None
Chen and Barnes (2007)	Context of online book store and formation of initial trust	Four constructs of perceived technology, perceived risk, company competency, and trust propensity.	Online transactions have three characteristics from traditional transactions of interactions with extensive technology, impersonal character of the online environment, and unpredictable technological infrastructures	Excluded
Jones and Leonard (2008)	Context of online auctions	Competence, benevolence and integrity and natural propensity to trust. This consumer to consumer model	Divided trust into internal and external factors; Internal of propensity to trust , perception of website quality External of others trust of buyers / sellers, and propensity to trust	Competence, benevolence and integrity and natural propensity to trust but not related to the other party.

2.4.5. Conclusion to the Literature Review on Online Trust

This section of the literature review presented a definition of online trust and highlighted the differences between online and offline trust. Online trust ignores interpersonal elements due to the impersonal electronic medium and the fact that users lose the ability to sense social cues that are used in decision making. Online trust has therefore historically focused on the platform or the website which is institutional trust. The internet however has changed, and therefore online trust models need to change. Online interaction has become capable of supporting a more personal interaction and therefore online trust models need to be updated to include the role of interpersonal trust. This is the contribution made by this research.

2.5. Interpersonal Trust Online

While there is a host of research on interpersonal trust and online trust, there is a very limited set of research available on interpersonal online trust. This suggests that online interpersonal trust is not well understood. The primary reason for this is that most researchers argued that the internet as a medium was impersonal and was unable to support a personal relationship (Grabner-Krautner, 2002) and little research has been produced despite the significant improvements in online communication and functionality.

2.5.1. The Exclusion of Interpersonal Trust in Online Trust Models

Olsen and Olsen (2000) proposed a framework for developing online trust. At the time of their study, which was early in terms of e-commerce, they conceded that the transition to a digital platform for business completely removed any of the traditional physical elements of trust. These included the characteristics of people, premises

and products. At this point in the development of the internet, these researchers felt that a personal side of an online interaction was not possible and therefore it should not be included in an e-commerce online trust model. Their proposed model consequently focused on stakeholders, information and infrastructure and ignored any personal components.

In the same year, Gefen (2000) performed a study on the role of familiarity in building trust. He found that familiarity between parties in an online transaction contributed to trust building, and the actor's individual propensity to trust also played a significant role. He concluded that offline trust is typically built through a series of previous interactions, which are not possible in an online context (Gefen, 2000). Grabner-Krautner (2002) discussed trust in the acceptance of e-commerce and disagreed with Gefen (2000) and the focus on the role of interpersonal trust, as trust was a limited mechanism in electronic markets. When buying decisions are made in a computer mediated environment, many elements of personal interaction (social cues) are not applicable or disappear, such as facial display, gestures, and body language (Grabner-Krautner, 2002) which is the reason for the contention.

The internet however is constantly evolving and improving as a communication medium that is able to support a better personal interaction. This research supports and extends the work of Gefen (2000) and seeks to demonstrate that familiarity between online users, as would be the case in an online social network, contributes towards trust building.

Granber-Krauter and Kalushca (2003) proposed a model that included two inputs: institutional trust (system trust), and personal and interpersonal forms of trust (dispositional, trusting beliefs, trusting intentions, trust-related behaviours). They

however argued that online trust should only really consider impersonal trust because computer mediated communication lacked interpersonal elements.

Pavlou and Ba (2002) agreed that trust in an online environment is difficult because of the impersonal nature of the medium and the uncertainty over the identity of the person you are interacting with. They recalled the famous cartoon featured in the New Yorker magazine that captured the issue of anonymity online with the quote said by a dog using the internet; “on the internet no one knows you are a dog” (Pavlou & Ba, 2002, p. 244). This cartoon highlighted that was no way to establish the real identify of a user on a platform that supported anonymity. In such an environment, trust building would be difficult as risk and vulnerability would be high. This anonymity is one of the primary reasons why interpersonal elements have been excluded from online trust.

Since multiple authors on online trust have rejected the interpersonal component (Grabner-Krautner, 2002; Granber-Krauter & Kalushca, 2003; Pavlou & Ba, 2002; Olsen & Olsen, 2000), it can be argued that online interpersonal trust is currently not well understood. The internet is currently more capable of a personal interaction than when these authors produced their studies, and therefore this study aims to contribute towards literature by proposing an updated online trust model that includes online interpersonal trust.

2.5.2. Similarities between Offline and Online Trust

Corritore, Kracher and Wiedenbeck (2003) linked online trust to offline trust and argued that there are a number of important similarities between a human-computer interaction (HCI) and an offline interaction. The authors claimed that there is commonality in the element of exchange and that the social interaction rules offline

and online are similar. Perhaps what was missing at the time of their study was an electronic medium capable of transporting the social interaction online and therefore their research fell short of actually demonstrating the similarity. The opportunity now exists to develop their argument as the internet has improved considerably since their study.

2.5.3. Early Signs of Interpersonal Online Trust

Feng, Lazar and Preece (2004) were among the first researchers to formally address interpersonal online trust, which was presented from an instant messaging / online chat context. Instant messaging is a form of CMC where users communicate via text messages sent over the medium. In this form of communication both parties are typically known to each other beyond the platform. This was perhaps one of the first forms of CMC where users could identify the other party, and therefore this was one of the first examples of how personal elements became available online.

Feng et al. (2004) were among the first authors to suggest that online interpersonal trust could be fostered by allowing users to share information about them and allowing themselves to be identified online. At the time of their research a website platform that they envisioned did not yet exist but they suggested features of websites that would contribute towards trust building. What was interesting is that the personal features they suggested now form core elements of new online social networks such as connections to other users and personal profiles. Feng et al. (2004) proposed that it would be helpful for users to look in a directory of other users to find people of similar age, experience or illness, which has become a base feature of OSN platforms. The authors further proposed that it would be helpful to encourage people to expose themselves online to promote the community. These suggestions

for features from Feng et al. (2004) provide a foundation for investigating online trust in new online social networks.

Olsen and Olsen (2000) importantly highlighted one key aspect of the generation of interpersonal trust, which is that people infer interpersonal trust from social cues. They were early to contend that for online trust to reach a new level, it would need to be possible to generate interpersonal trust online. For that to occur, the online platform would need to support social cues such as similarity and background, interpersonal exchanges showing that each party cares, and trusting and trustworthy behaviour such as the fulfilment of promises. Therefore for the internet to support the generation of interpersonal trust it would need to be capable of sharing personal information. The internet has improved since their research and it is not clear whether their idea of an online platform that allows users to share social cues would in fact result in interpersonal trust. This is the primary investigation of this research; that the internet has evolved and improved to an extent where sharing of social cues is possible, particularly in the new online social networks.

2.5.4. Conclusion to the Literature Review on Interpersonal Online Trust

This section provided existing literature to demonstrate that interpersonal online trust was specifically excluded from online trust models. The principle reason for the exclusion was the limited capability of the internet as a communication platform to support the transfer of social cues which are necessary to build interpersonal trust. This highlights the key point that online and offline interactions are very different, and the role of the mediating platform is significant and cannot be ignored.

It was interesting that both Feng et al. (2004) and Olsen and Olsen (2000) acknowledged this limitation but anticipated that interpersonal trust would become

relevant online once the internet improved enough to support a better interaction. They both suggested that once the limitations of the medium would be removed, online trust would change. The contribution from Feng et al. (2004) suggested that personal features online could contribute to trust, and some of these features are found in online social networks. Based on the popularity and success of online social networks it is proposed that the internet has changed sufficiently to support a personal communication as social networks have built very personal platforms online.

2.6. Social Networks

The focus of this literature review shifts away from trust temporarily in order to present one possible type of online platform that could potentially allow for an interpersonal relationship online. These are online social network sites and therefore literature on social networks and online social networks is presented.

2.6.1. What is a Social Network?

A social network can be defined as a set of actors and the relationships between them (Goldenberg, Han, Lehmann, & Hong, 2009). Actors can be individuals, organisations or institutions (Goldenberg et al., 2009). The relationships between actors are known as “ties” and are based on a type of interdependency such as friendship, common interest or financial exchange (Trusov et al., 2010). Social networks form in a variety of contexts such as personal and professional and can form for a number of reasons, such as sharing information and learning. Brown and Reingen (1987) looked at the structure of interpersonal networks and argued that different types of links facilitate the transmission of information between subgroups

within the network. Social networks play a fundamental role in how information reaches individuals (Goldenberg et al., 2009; Van den Bulte & Wuyts, 2007) and have long been studied in the area of diffusion and adoption. While diffusion and adoption are beyond the scope of this study it demonstrates the role of breadth of interest in social networks.

Social networks are successful when users interact with each other and this interaction occurs on an interpersonal level. An element of reciprocity develops and there is an unwritten social contract between community members (Boyd, 2008) which results in a tight user community where interpersonal trust would flourish. Actors are involved with two activities on a social network, either creating content, or consuming content that others create (Chen & Fong, 2010) and this activity forms the basis for sharing of personal information within the network.

For a social network to exist a medium is required for the interactions to take place (Caverlee, Lui, & Webb, 2008). Typically the medium has been physical with face to face meetings, mailing lists, but more recently electronic with online user groups and forums over the internet. Historically social networks were forged by nodes in the physical world (Boyd & Ellison, 2009) which created a number of limitations on when interactions could occur such as geography and time (Hoffman & Novak, 1996). According to Hoffman and Novak's (1996) seminal paper this limited the frequency and duration of engagements. With the rise of the internet as a communications platform, the need for interpersonal online trust developed, as users could interact online without these limitations. With the internet removing the limitations of geography and time, online social networks have grown and expanded to many areas of business and society.

One impact of this widespread growth has been on how information reaches consumers. Previous work by Achrol and Kotler (1999) and Shapiro and Varian (1998) predicted that various networks would be formed in the economy that would have multiple impacts - particularly on marketing, one of which would be organised consumer communities that would aggregate consumer information and demand. This has manifested as today's online social networks, grouping consumers of common interest and making online social networking relevant to the business context.

2.6.2. Online Communities and Social Networks

An online social network (OSN) is the electronic online form of a social network. It is a digital community that exists on the internet or other electronic communication medium in which users feel an intrinsic connection to other users (Boyd & Ellison, 2009). A community has some form of boundary between members and non-members, and in an online community membership is typically easily granted by a user requesting access and contributing (Ridings & Gefen, 2004). These communities are typically an extension of the physical communities and are grouped around common interest, ethnicity or affiliation (Dennis, Pootheri, & Natarajan, 1998). Common examples of online communities have been user forums, bulletin boards, email lists and online chat rooms (Boyd & Ellison, 2009). These are typically formed around a niche topic of interest such as dog breeding or travelling within a specific country. Therefore users on online social networks share elements of a personal relationship as there is some form of familiarity based on the connection between users. An online community is one example of the evolution of the internet

where interpersonal relationships became possible online. The terms ‘community’ and ‘social network’ are used interchangeably in this research.

Sharpe (1998) highlights the benefits of the internet as a communication medium that removes the limiting factors of geography and time. The internet has removed boundaries, enabled easier interaction and provided an ideal platform for user groups and communities to thrive. Within these platforms users are able to share ideas, comments, and knowledge with a wide audience. While these online communities enjoy the benefits of the internet as a medium, they have also suffered from its limitations specifically around the depth of user interaction which limited the transmission of social cues and therefore trust.

2.6.3. Online versus Offline Social Networks (OSN)

The fundamental difference between a typical (offline) social network and an online social network is the electronic medium over which the interaction between actors takes place. Generally there is a physical interaction in a typical social network (Caverlee et al., 2008) as actors occupy the same geography and time (Shapiro & Varian, 1998). The term offline is intended to indicate that the interactions between network members do not occur over the internet or some other form of computer mediated communication, while online specifically indicates that communication within the network is done over the internet.

While there are many benefits of the online medium, such as not being limited by time, geography, ease of access, cost and global reach, there are some disadvantages, perhaps the most important being the impersonal nature of the medium which inhibits the level of interaction. However new software developments that enable a better user interface and therefore a richer user experience have been

developed on top of the internet medium. These new software features have improved the capability of the medium, and these former limitations are being overcome.

2.6.4. Traditional versus New Online Social Network Platforms

New online social networks are different. This research categorises online social networks and distinguishes between traditional and new online social network platforms. The reason for this distinction is the variety of features and functionality on the newer online platforms that are argued by this author to support a better interpersonal interaction. The following section on New Online Social Networks articulates these features and provides justification for this argument.

These features are the product of advances in online technology. The internet medium is constructed from a variety of complex systems including computer hardware and software. Most important in this array of systems and sub-systems is the web browser, as this is the point where the human computer interaction takes place. The web software that displays in the browser has evolved and improved.

The change in user interface was mainly driven by the move to Web 2.0, where the focus of the internet shifted to include, amongst other things, user generated content (Murugesan, 2007). Therefore the new internet (Web 2.0) was designed around users sharing information, which would naturally contribute towards a more personal experience between users. Web 1.0 was about content being published and users consuming it, but there was no way for users to share and contribute their own information which was part of the impersonal aspect of the old internet. In this way Web 1.0 was unidirectional where there was no online interaction between users. One useful distinction between Web 1.0 and Web 2.0 is that while Web 1.0 was

mainly about commerce, Web 2.0 was about people (Barsky & Purdon, 2006) which further highlights that the internet has changed towards a personal focus and information sharing. Online networks created under Web 1.0 are therefore structurally different to those formed under Web 2.0.

Web 2.0 therefore encouraged users to interact online and become comfortable with communicating over the internet. As users interacted more online, the utility value of the internet evolved into a popular communications platform which likely resulted in users gaining acceptance of the medium. Examples of early Web 2.0 successes were websites such as MySpace, Flickr and YouTube (Murugesan, 2007). Millard and Ross (2006) highlighted that Web 2.0 was designed around interaction, community and openness which all lead to a richer online user experience. It is the element of community inherent in the design that encourages online interpersonal interaction and creates a platform conducive to interpersonal trust.

An example of the new technologies that are enabling this change is AJAX (Asynchronous JavaScript and XML), which is a combination of existing web programming languages that together create a highly interactive and more responsive user interface (Murugesan, 2007). This new technology has powered the change in online interaction and likely made the online medium more accessible to new users. AJAX is core to Web 2.0, has been used since 2002 and is an example of the technological advancement in web software (Barsky & Purdon, 2006). Since 2002, AJAX has continuously evolved and user interfaces have improved, offering even better user experiences. Since the newer online platforms are based on technologies such as AJAX, the distinction between traditional and new online social

networks is based around significant improvement in functionality and user experience.

2.7. New Online Social Networks (OSN) and Online Trust

2.7.1. Introduction

The improvement of Web 2.0 platforms and the rise of the social web have led this researcher to differentiate between new and older online social network platforms. While online communities have likely existed since the start of the internet in some form, newer technology has enabled richer online interaction. There is therefore a reason to draw a distinction between older style platforms and new OSN sites. The following section presents the characteristics of new online social network platforms and how these characteristics contribute towards an interpersonal relationship and trust online.

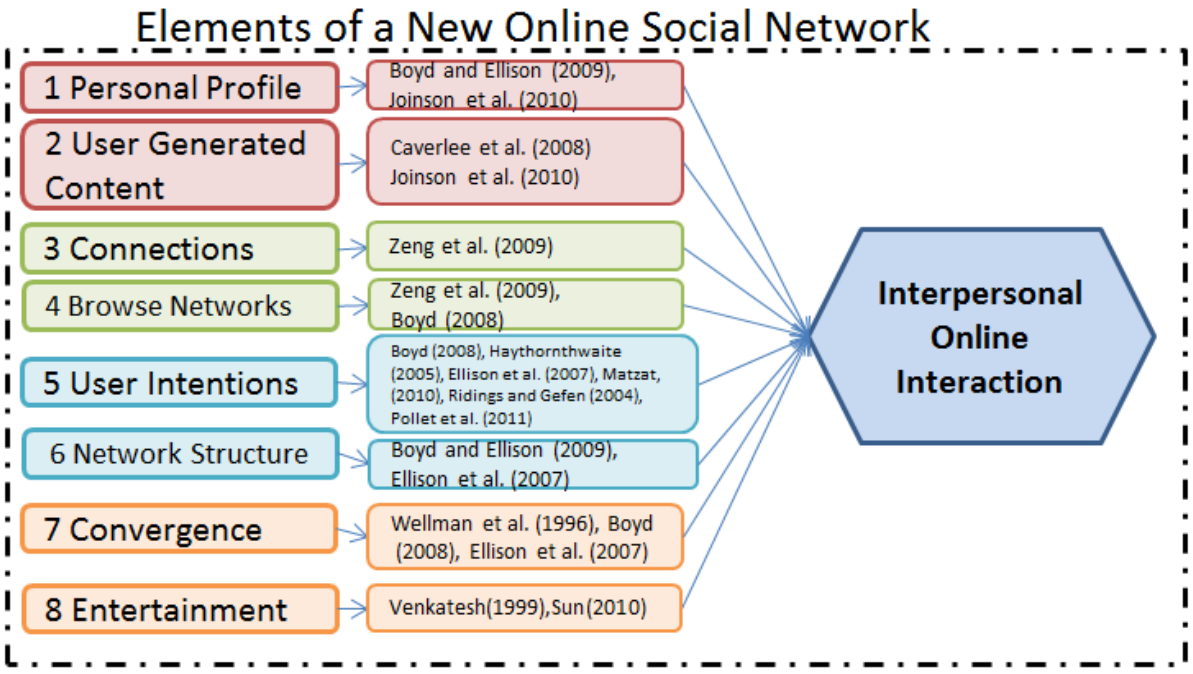
Very little literature was found on online interpersonal trust (Chaney, 2010; Lazar & Preece, 2004; Paul & McDaniel, 2004), especially involving online social networks indicating that this topic is not well understood and motivating this research. Chaney (2010) anticipated that social networks could help improve online trust as they enable rich online interaction between parties.

Olsen and Olsen (2000) suggested in 2000, before the new online social networks were created, that the role of the internet as a dis-intermediating force would be reversed. They predicted that elements of an online interaction were trust building, but were unable to conclusively provide a platform that could actually do it. Perhaps their research was visionary and the realisation and manifestation of their work has come out in the form of the new online social networks like Facebook. They

predicted that close trust could manifest through an online interaction, but it would only occur if the platform supported social cues.

The following section presents features of new online social networks that do support social cues and therefore the development of interpersonal trust. The following eight properties of new online social networks are proposed as the differentiating features between new and old platforms and capable of contributing towards trust building. When employed together on the same website, it is proposed that these characteristics would combine to promote a rich user experience and interaction. These eight elements of a new online social network are shown in the figure below.

Figure 3 Eight defining properties of a new online social network



2.7.2. Personal Profile

When users join a website they generally create a user account to identify themselves with the system. The way user accounts are handled on old and new platforms differs significantly, with the primary difference being in what information is

shared publicly. Boyd and Ellison (2009) stated that a social network website has three fundamental properties that differentiate it from other platforms. Their reference to a social network website is understood as the new online social networks. The platform allows users to create a personal profile on the system, display a list of users with which they share a connection and view and browse their list of connections, as well as connections made by others within the system.

Perhaps only one of these three, the personal profile, is typically available in old style systems, albeit in a simple way. The personal profile is similar to a user account where the user loaded a unique username and email address. The critical aspect of the username was that it was not the user's real name, and typically had no link to the user's real name (Boyd & Ellison, 2009). This profile therefore gave the user an identity online that was different and not linked to their real identity and aided anonymity. The user account also lacked flexibility in what information was shared as the user was restricted to the fields included on the user profile. The limited user profile also assisted in maintaining user privacy as there was no way to establish a user's true identity based on their username or limited user profile alone (Chen & Fong, 2010). This anonymity increased risk and vulnerability and detracted from trust being built.

A salient feature of new OSNs is the ability for the user to create and display a personal user profile, in order to create a unique representation of them online including personal interests and location (Boyd & Ellison, 2009). A user profile on a new OSN typically includes the user's real name, real photograph, and other personally identifying information which as trust building social cues towards other users. In contrast to older OSN platforms it is possible to link the online user to a real

person. The level of personal information disclosure in a new OSN is therefore higher than in an old style OSN. Personal and interpersonal factors now come into play in online interactions. Allowing users to create a personal user profile and share information about them is anticipated to assist in creating online interpersonal trust. Feng et al. (2004) suggested that online interpersonal trust could be fostered by allowing users to share information about themselves and allowing themselves to be identified online, much like is done in a new style online social network. Users would be more familiar with each other as they would use their real names and perhaps show a real photograph, as well as disclose other personal identifying information.

One interesting proposition of the Olsen and Olsen (2000) research was that online trust would be higher in cases where users could share personal information. Joinson et al. (2010) showed that the level of online disclosure reduces uncertainty in online transactions. Uncertainty in a transaction leads to feelings of vulnerability which reduces trust (Rosseau, Sitkin, Burt, & Camerer, 1998). One characteristic of new style OSNs is a high level of disclosure (Joinson et al., 2010) which should reduce uncertainty and increase trust.

Chaney (2010) argued that trust is likely the most defining factor when selling products online as those users will not transact with a merchant they mistrust. Chaney (2010) analysed a variety of OSNs to determine which elements add or hinder trust with the platform. His research demonstrated that including aspects of new OSNs such as showing the seller's real name, personal profile and photograph increases trust within an online store (Chaney, 2010).

2.7.3. Personal Information Disclosure

Personal information disclosure is a term proposed in this research that refers to the amount of personal identifiable information beyond just a personal profile that is shared online. In an older web platform the amount of personal information sharing was limited as users chose rather to remain anonymous behind pseudonyms. In contrast, new online social networks encourage user generated content typically of a personal nature such as photos and opinions and thoughts. While regular web sites such as a news website publish information online, no information is published by the social network itself on its own platform (Barker, 2009). The network generally relies entirely on user generated content (Barker, 2009).

Mark Zuckerburg, the founder of one of the world's most popular OSNs, Facebook, heralded the end of online privacy stating that he believes that personal information should be freely available and searchable online where a user's content is shared publicly with the world (Kirkpatrick, 2010). The ex-marketing director of Facebook echoed the founder's statements calling for an end to online anonymity, arguing that online behaviour would improve if users were not able to operate anonymously online (Reporter, 2011). This notion is supported by Feng et al. (2004) who suggested users would be more comfortable online and trust would be higher if more information was disclosed. Perhaps this improvement in online behaviour alludes to the improvement of inter user trust when anonymity is removed. Having personal information shared publicly online would bring about the end of anonymity, which is an about-turn on what which internet was initially built (Carr-Harris, 2011).

2.7.4. Connections

While the older online social network platforms allowed users to create user accounts there was no way to link user accounts to indicate connectedness which is a defining difference between older and newer OSNs. Users would create an account that granted them access to the system. The relationship that existed was between the user and the platform (Ellison, Steinfield, & Lampe, 2006). An example of this is on a user forum, where users can interact with each other by participating in the discussions, but there was no way for users to indicate a friendship or professional affiliation with each other. All users on the platform existed as individuals with no affiliations to other users and therefore limited personal interaction.

New platforms allow users to connect with each other and use terminology such as friends, buddies or connections (Boyd & Ellison, 2009). The nature of the connection between users could be friendship, family, professional or common interest which can be understood as a translation of an offline relationship online. In contrast to older platforms where users were isolated from each other, users now proactively create links to other users and by doing so create a networked community and social structure online. This structure of users connecting to each other online is a better representation of how social networks exist in the real world and would be easier for users to relate to, based on the similarity to real world relationships. The concept of allowing users to connect with each other within the network is anticipated to strengthen the social bonds, create a strong community and allow for better personal interaction between users.

The result of close relationships between users would have a positive influence on trust between users. The concept of connections provides one example of how the internet is changing, and improving in terms of interpersonal relationships.

Vision Critical (2010) were the only authors who contested that trust is significantly lower in new style OSNs due to concerns over privacy and scams. Their study however focused on the OSN platform itself and did not consider the strengths of the relationships between users. Despite their criticism of trust in OSNs, they did acknowledge that interactions between users in an OSN such as between family and friends have the highest possible levels of online trust (Vision Critical, 2010).

2.7.5. Browse Networks

While having online connections is a defining property of a new online social network, an important extension of this is allowing users to browse another user's network of connections. This allows a user to see who another user is connected to, and from that make assumptions or decisions based on that information. Social connections are the emphasis of new online social communities (Zeng, Huang, & Dou, 2009). These features such as connections, friends, and personal profiles did exist beforehand on a variety of platforms such as dating sites, but they were not visible to others (Boyd & Ellison, 2009) and therefore could not be traversed. Therefore the ability to traverse a list of connections is a distinguishing feature of a new OSN (Boyd & Ellison, 2009). Just as knowing who a person is friends with in the real world contributes to their perception, so too does the ability to see who an online user is connected with affects one's perception. This feature therefore contributes to social interaction as users get a perspective of which users are connected. This acts as a strong social cue towards trust building.

Being able to browse a friend's set of connections is another example of how the internet has changed to support a real world type of social structure online and a more personal user experience. These changes have an impact on the interaction between users, and therefore are expected to influence interpersonal trust.

2.7.6. Intensions of Users

Perhaps one of the biggest differentiators between old and new OSN platforms is the reason for their personal use. Ridings & Gefen (2004) sought to understand why users joined various (older) online communities. They found that across all networks information exchange was the most popular reason, followed by new friendships suggesting that networking and meeting new people was the primary reason for using the platform (Ridings & Gefen, 2004).

One central difference between old style OSNs and new OSNs is that users of new social networks typically do not use the platform to make new connections (Haythornthwaite, 2005). The online connections they have are as a result of pre-existing offline relationships (Haythornthwaite, 2005) in that users first meet in the real world and then connect online. This means that online connections in a new OSN are already connected in the real world, and therefore the level of familiarity and trust would be higher. There has likely already been an opportunity to exchange social cues, and build a perception of the other party. By definition then, connections within a new OSN should share a stronger interpersonal relationship by virtue of the previous shared engagement.

Users of new OSNs typically communicate with users who are already within their existing extended real world social network (Boyd & Ellison, 2009). Ellison et al. (2007) completed a study where they investigated college students' use of Facebook

and found that the platform was used to maintain existing offline relationships as opposed to meeting new people. They found that users spent a large amount of time searching for other users that they had a previous offline relationship with. Ellison et al. (2007) further argued that this is one of the main differentiators of a new OSN to previous versions of computer mediated communications, as no new networking is taking place.

Pollet et al. (2011) studied the effect of social network interactions and the effect they have on offline relationships. They concluded that spending time online did not result in a larger offline network or having an emotionally improved relationship with offline members which agrees with Ellison et al. (2007). This supports the notion that modern OSNs are used to maintain existing offline relationships and are not used to establish new relationships. This is one of the primary reasons why users in a new OSN share a strong connection, as the relationship is based on a previous real world interaction where social cues could be exchanged.

In terms of the generation of online interpersonal trust in this scenario, it is likely the result of offline interpersonal trust, as the users had met before and exchanged social cues. The link between an existing offline connection and trusting that same user online and the influence of the pre-existing relationship is an insight that previous authors have not identified, but is central to this research. Offline trust and online trust have also typically been treated separately.

An interesting way to highlight the difference between old and new style OSNs was made by Boyd and Ellison (2009) who made a distinction in terminology of “social *network* sites” and “social *networking* sites”. They argued that new social sites are not used for networking as such, which implies an initiation of a new relationship

between strangers. Networking is not the focus of these sites and this is not what differentiates an OSN from other forms of computer mediated communication (Boyd & Ellison, 2009).

This highlights that the users' intentions in the network have changed as users do not use the platform to meet new people. The impact of this would be a stronger connection between users as they already share some previous connection or familiarity offline, which automatically reduces the risks and uncertainty of meeting a connection online for the first time. The idea that user's online intentions have changed supports a previously presented idea that the internet as a communication medium has changed and further motivates the requirement for an online trust model to be updated to include the role of interpersonal interactions.

2.7.7. Network Structure

Previous online communities were typically arranged around interests such as pets, technology or relationships (Ridings & Gefen, 2004). New online social networks, like Web 2.0, are primarily organised around people, not interests (Boyd & Ellison, 2009) or geographies (Ellison et al., 2007). This structure affects the type of information that is shared between users and facilitates an interpersonal relationship between users based on the resulting interaction.

Wellman (1988) stated that the world is composed of networks of people and not groups, which are how new online networks are arranged. This structure better mirrors offline interactions where users interact with other people in a free environment and are not limited to interacting around certain topics in certain contexts (Ridings & Gefen, 2004). It is proposed that this type of structure would facilitate a more personal interaction between users based on the similarity to the

real world, and this represents another example of how the internet has become capable of supporting an offline social structure online. The type of information shared would not be limited to the discussion topic but rather whatever interests the user at the time, much like a face to face conversation. This lack of structure (regarding a set topic of discussion as would be in an older OSN) gives users freedom to express themselves online in a new way and furthers the argument that the internet has changed and the way users interact online has changed.

2.7.8. Online Offline Convergence

Online offline convergence is closely linked to the previous idea of intentions of users. Users in new OSNs connect with other users that they already have an existing offline relationship with, and in so doing are moving their offline relationships online. Therefore relationships no longer exist exclusively either online or offline but in a converged space. Wellman, Salaff, Dimitrova, Garton, Gulia and Haythornwaite (1996) anticipated that the direction of movement would change from online to offline because of the benefits of the internet as medium. With real world connections also existing online there is no longer a bold distinction between online and real world friends and consequently there should be less of a distinction between offline and online trust. This makes the interaction online more personal as connections are familiar both online and offline.

The second aspect of convergence relates to the richness of the online user experience to the extent that interacting online and face to face have become more similar. Where online communication was previously limited on older platforms, communication within a new OSN is far more engaging (Chaney, 2010) which is a direct result of the improvement in web technology. This communication includes

photos, videos, "status“ updates of current ideas or thoughts, as well as messaging and real time chat. These features together facilitate a multi dimensional online user experience where offline elements of trust models become relevant online. Ellison et al. (2007) were the first to claim that offline and online interactions are starting to bridge because of the improving level of user interaction.

2.7.9. Entertainment Factor

The entertainment factor of new style OSNs must be included in a comparison between old and new style online social networks and is closely linked to the argument concerning user intention within a new style OSN. Where previously users logged on to older platforms to participate in the topic of interest, it is anticipated that users log onto new OSNs as a form of entertainment since the network is formed around them and not a specific topic of interest (Boyd & Ellison, 2009). As web software technology has improved over time, not only has the user interface improved but the online experience has become a source of entertainment for users (Venkatesh, 1999). The entertainment factor of a new OSN is anticipated to contribute to a more personal interaction in two ways. First, users could associate an entertaining experience with being comfortable, much as they do when enjoying a social interaction in the real world, and link enjoyment to trust as suggested by Sun (2010). Secondly, users who enjoy using the platform are likely to continue using it (Venkatesh, 1999), and in doing so interact with more and more connections.

The use of the internet as a source of entertainment is an example of how the internet as a medium has changed, in terms of technology and capability, and how its use has changed. This entertainment factor has the potential to influence

perceptions of the platform as well as other users and therefore is a potential contributor towards online interpersonal trust.

2.7.10. Facebook as an example of a New Online Social Network

Based on the above differences between old and new platforms, Facebook can be a considered a good example of a new style OSN as it displays all of the above eight properties, while MySpace can be cited as an example of an old style network. MySpace was designed around entertainment (a specific topic of interest) and therefore has functionality structured around that, while user intention was found to be networking, rather than managing existing offline relationships (Dwyer, Hiltz, & Passerini, 2007).

Facebook is singled out in this literature review as a new style OSN as it will be used throughout this paper as a proxy for new online social network platforms. Facebook is not the only OSN that exhibits all the properties of a new style OSN, but it is likely the most popular and best known. Other examples of new style OSNs are CyWorld, Renren, Bebo, Orkut, Badoo and Tencent QQ based on them exhibiting the eight properties of new OSNs proposed in this paper.

2.7.11. Summary of Properties of New Online Social Networks

The following table summarises the eight distinguishing characteristics of new online social network platforms.

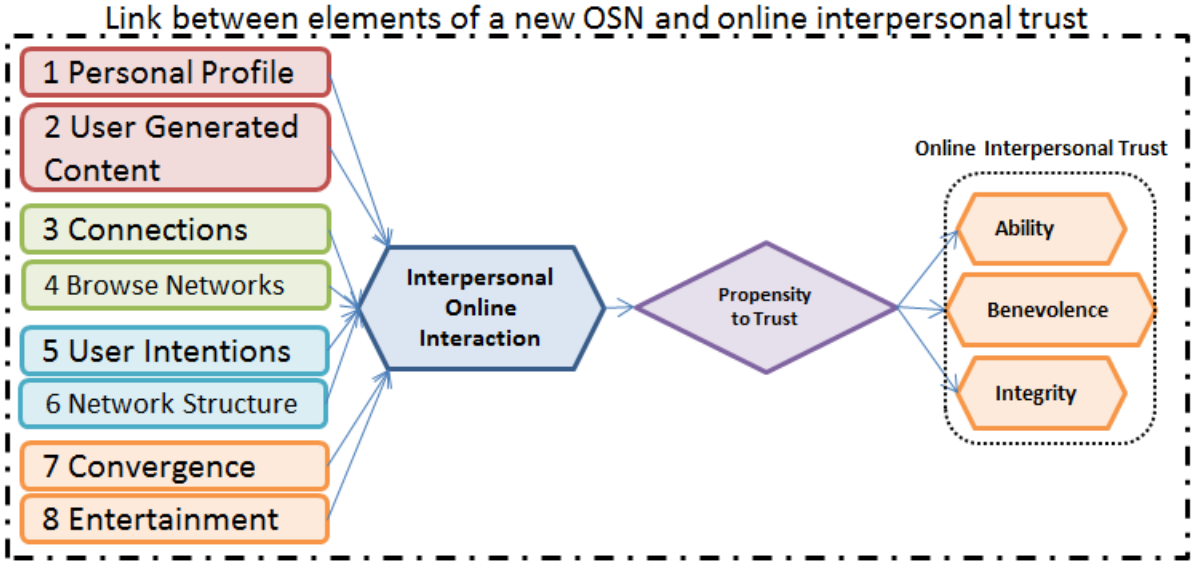
Table 4 Summary of characteristics of new online social networks

No	Characteristic of a new OSN	Description	Supporting Literature	Found on Facebook
1	Personal Profile & Level of Disclosure	Users create a personal profile, typically with their real name and photograph and various other demographic information	Boyd and Ellison (2009)	User profile
2	Personal Information Disclosure	Users share arbitrary social communication, disclosing personal information such as photos and status updates	Joinson et al. (2010)	Status, Location, photo, video updates
3	Connections	Users can link their profiles to other users and have friends or connections	Zeng et al. (2009)	Friends
4	Browse Networks	Users can browse and traverse other users networks	Zeng et al. (2009) Boyd (2008)	Capable of browsing
5	User intentions	Users join the network to connect with existing offline connections, not to make new connections. Focus is on maintaining existing offline relationships. Relationships move from offline to online, not the other way around	Boyd (2008) Haythornthwaite (2005) Ellison et al. (2007) Matzat, (2010) Ridings and Gefen (2004) Pollet et al. (2011)	Ability to search and connect with existing offline contacts
6	Network Structure	The network is organised around people not topic of interest	Boyd and Ellison (2009) Ellison et al. (2007)	Facebook is tailored around the user
7	Offline / Online convergence	The level of personal interaction is comparable to face to face communication Interacting online as a substitute to physical interaction	Wellman et al. (1996) Boyd (2008) Ellison et al. (2007)	Very rich user experience
8	Entertainment	Users log on to an OSN as a form of entertainment, not only sharing information.	Sun (2010) Venkatesh (1999)	Researcher finds Facebook entertaining

2.7.12. Conclusion to Literature Review on Online Social Networks and Online Trust

The preceding literature review presented eight characteristics of online social network platforms that distinguish new style platforms from traditional platforms. It is proposed that these eight features of on online platform are fundamental in building an interpersonal relationship online. These eight characteristics are found on Facebook, which is why Facebook represents a good example of a new style OSN. An opportunity exists to propose a new model of online trust that includes the role of interpersonal relationships in order to better understand the forces at work. New online social networks present the ideal context for such a study to take place. The following diagram summarises the relationship between elements of a new OSN and the proposed generation of online interpersonal trust.

Figure 4 Relationship between OSN elements and interpersonal online trust



2.8. Generalisability of the Study

Online social network sites are one of many platforms where online user interactions take place. While previous research has focused on online trust in e-commerce specifically (Geffen et al., 2003; Son et al., 2010; Sun, 2010), online trust in this study is intended to be relevant to all forms of online interactions, including those that take place of a social nature such as the interactions in a new style OSN.

The contribution of this study is the formalisation of an interpersonal online trust model, based on eight distinct and identifiable features of new online social network sites. Previous work has been limited in terms of its relevance to contexts beyond the specific context of the initial study. The proposed trust model in this study is anticipated to be relevant to multiple contexts such as online auctions, online classifieds, online stores, as well as business to consumer transactions since businesses may also be users within an OSN.

2.9. Conclusion to Literature Review

This literature review presented existing research on two main themes of online trust and online social networks. Online social networks have gained popularity with internet users to the extent that some have hundreds of millions of users (Silverthorne, 2009). While online social network sites are not new, they existed in various forms such as emailing lists, forums and bulletin boards, lacking the properties that newer OSN sites have (Boyd & Ellison, 2009). Eight properties of OSN platforms were highlighted that can be used to classify an OSN platform as new. It is proposed that these properties give rise to an improved online interaction which is far more personal and closely resembles a real world interaction. The result is a far more engaging interaction between users than on older online platforms.

Online trust is well covered in the literature however very few studies focus on online interpersonal trust, and therefore it is not well understood. This is mainly because it was generally accepted that it was not possible to have a personal relationship over the impersonal medium of the internet. New OSN platforms however have changed this and have made the internet more personal. It is therefore anticipated that it is possible for interpersonal trust to manifest online within a new style OSN. For trust to occur, the elements of ability, benevolence and integrity must be supported, which is expected to be possible in a new online social network such as Facebook.

This study seeks to contribute that online trust models should include interpersonal trust elements because the nature of online interactions have improved. It is anticipated that social cues and other interpersonal trust inputs can be supported online. The internet has become more personal through the new online social networks.

The research opportunity in this paper is therefore to:

- Highlight the characteristics of new online social network platforms that have improved the level of online user interaction.
- Propose an updated interpersonal online trust model that includes the characteristics of new online social networks as inputs towards the generation of online interpersonal trust.
- Test the proposed online trust model and the extent to which each of the characteristics of new type OSNs contribute towards the model.

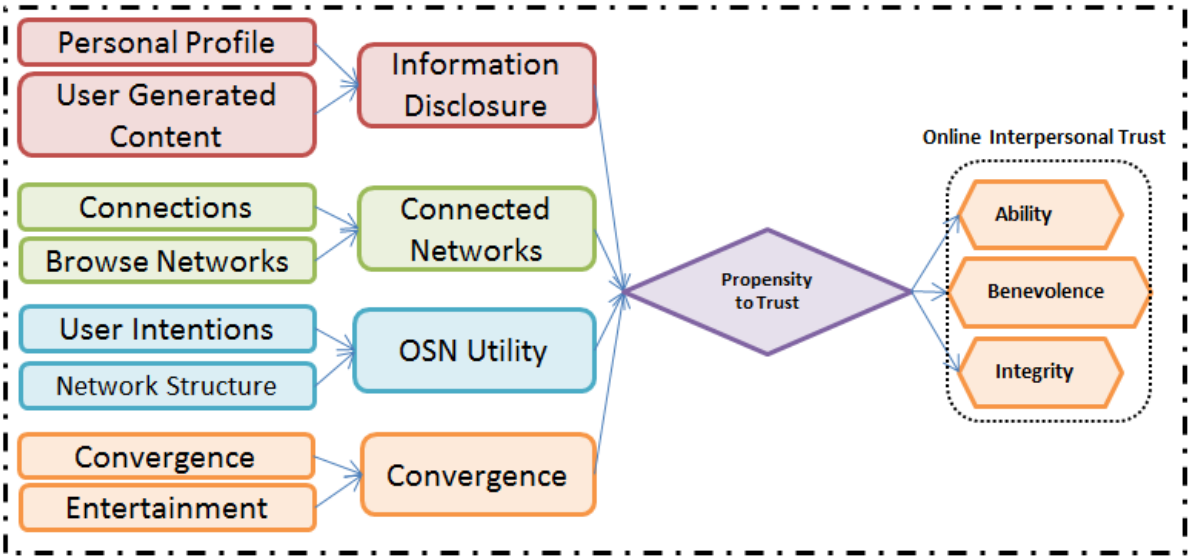
3. RESEARCH PROPOSITIONS

The objective of this study was to propose an updated online trust model that included the role of interpersonal trust. The literature review demonstrated that interpersonal trust has been excluded from online trust models, mainly because computer mediated communication was considered impersonal. The internet has improved and online interactions between users have evolved, particularly within new online social networks such as Facebook. The literature review highlighted eight properties of new online social network platforms that differentiate them from traditional online platforms. It is these eight properties of new online social networks that facilitate an online interpersonal interaction and therefore interpersonal trust.

The literature review also highlighted that interpersonal trust was shown to be the outcome of ability, benevolence and integrity between people, as well as the role of the individual's natural propensity to trust. This research therefore proposes that the eight properties of new online social networks influence ability, benevolence and integrity between users within a new online social network, with the outcome being online interpersonal trust. These relationships are shown in the figure below.

These eight properties of new online social networks were abstracted into four constructs in an attempt to introduce parsimony to the model. The four sets of two were grouped into common themes that made logical sense. The research proposition of an updated online trust model can be summarised in the following diagram.

Figure 5 Proposed interpersonal online trust model



The personal profile and user generated content combine to form the construct of Information Disclosure. The fact that users connect with other users and are able to browse other users' networks, forms the construct of Connected Networks. The user's intention within the OSN, as well as how the OSN is structured around people rather than a topic of interest, form the construct of OSN Utility. The convergence of the online experience towards an offline social interaction, as well as user entertainment, forms the construct of Convergence. These eight properties of new OSNs form four constructs which are the proposed antecedents of online interpersonal trust. The user's natural propensity to trust plays a moderating role.

3.1. Proposition

This research strives to determine whether the proposed model of online interpersonal trust shown in the figure above fits the data collected in the research instrument. This test of fit will be done using structural equation modelling (SEM).

4. RESEARCH METHODOLOGY

4.1. Research Design

This research aimed to determine whether the proposed model of online interpersonal trust was valid. The input constructs to the model were users' experiences within the online social network. This study therefore measured the online users' attitudes towards various features and functionalities of the online platform to describe the contribution towards existing concepts of trust as presented in the literature review.

The research design was therefore quantitative and descriptive in nature as the intention was to describe various constructs (Blumberg, Copper, & Schindler, 2008). Blumberg et al. (2008) stated that quantitative descriptive research is designed to describe characteristics of the study sample. Descriptive quantitative research is commonly used when an understanding of the research problem exists (Blumberg et al. 2008), such as the antecedents of interpersonal trust as the literature survey demonstrates.

The data collected in this study was cross sectional and represented opinions at the point in time when the survey was administered. This approach served the time limitation as a longitudinal study would not have been possible. Further to this, OSN platforms evolve with new features and capabilities being launched continuously, making a longitudinal study in a changing context difficult.

This study was not exploratory as the literature review provided a set framework of characteristics to describe both online social network platforms and online trust. A causal design could have been employed to determine causality of each of the

constructs, but this would have been complex and time consuming and causality of each of the constructs had already been demonstrated by a multitude of researchers (Gefen, 2002; Jarvenpaa et al., 2000; Mayer et al., 1995).

4.2. Scope

The scope of this study was online interpersonal trust between individual users of OSN websites. While there are many forms of trust which can be formed in various contexts, the scope of this study was limited to interpersonal trust. Previous studies such as the work by Riedl, Hubert and Kenning (2010) focussed on gender differences in perceptions of online trust but this was not focussed on in this study as a general model was being tested.

4.3. Population

The universe for this study included all South African internet users who had a registered account on Facebook at the time of the study. Facebook was chosen as the only OSN of interest as it has gained widespread popularity in South Africa and exhibits all of the proposed characteristics of a new type OSN. In order to remove any potential cultural differences in users' perceptions, this study was limited to South African users of Facebook as Olsen & Olsen (2000) demonstrated that some cultures that are based on generalised eastern and western geographies are inherently more trusting than others which could have influenced results.

There was no sampling frame as Facebook does not publish its user database. It was not necessary for the population to specifically include users of both old and new types of OSNs as the measurement instrument related to the users' current perceptions of their online experience, and was not comparing old versus new

platforms. This study did not place limitations on the duration of the users' online social network experience, however this was included in the research instrument as a descriptive variable. The population size therefore could not be quantified as it was hidden within the network but it was anticipated to be sufficiently large for the study to be successful. The population served the research topic as the research proposition required users who were active in a new style online social network.

4.4. Sampling

4.4.1. Sampling Technique

The sampling criteria included respondents who were currently registered as active users of the Facebook online social network. The sampling technique for this study was non-probability snowball sampling as the target population was best located through referral networks within Facebook (Blumberg et al., 2008). This sample therefore was not random but convenient to the researcher. An initial group of diverse respondents were identified within the researcher's online social network and were sent an invitation to participate in the questionnaire using Facebook internal messaging. These users were also asked to forward the invitation to other Facebook users within their social networks.

Since the sample was not randomly selected from a sampling frame, it was acknowledged that the sample was subject to various biases such as clustering or differential recruitment (where a user with a large network recruits users with similar traits), and cannot be representative of the entire population (Johnston & Sabin, 2010). This could have caused the study to have low variance and external validity (Johnston & Sabin, 2010). However it can be argued that the resulting sample would

not have differed significantly from a random sample. Since the researcher had no control over the suitability of the respondents, a set of qualifying questions were included in the research instrument to filter out unqualified respondents. It can be argued that other forms of sampling could have been employed, however it was not anticipated that other sampling methods would have provided any material benefit over the one chosen and there would have been no guarantee of a suitable incidence of Facebook use. Sampling within the OSN of interest provided the ideal opportunity to reach OSN users.

No incentives were offered to participants and the survey did not incur any costs. The data was anticipated to be collected over three weeks, but the required number of responses was collected in eight days. This relatively fast data collection time suggested that an interpersonal interaction was occurring between users.

4.4.2. Sample Size

The sample size of this study was required to be large enough to measure the extent to which the eight properties of a new OSN influence online interpersonal trust. Since this study employed structural equation modelling (SEM) for statistical analysis, a sample size large enough to perform SEM was required. The sample size determined the statistical power of the SEM test (McQuitty, 2004). While there is little agreement in the literature of the exact sample size needed to perform SEM, various authors have proposed a ‘critical sample size’ of 200, which can be used as a rule of thumb to provide sufficient statistical power in the analysis (Hoelter, 1983; Garver & Mentzer, 1999). The target sample size was therefore 200 valid responses.

A variety of systematic errors can manifest in research designs such as sampling error or sample bias. In order to mitigate these errors, recommended sample sizes

were used. This was realistic as the sample size had no impact on the costs of the study and the population was sufficiently large.

4.5. Unit of Analysis

The unit of analysis in this study was a Facebook user. Perceptions of Facebook users were measured with respect to the impact of online social network characteristics on the level of personal interaction and trust.

4.6. Research Instrument

The research instrument was an online self-completing Likert scale survey. Survey Monkey (www.surveymonkey.com) was used to host the survey online and collect primary data. The Likert scale consisted of five points where one indicated strongly disagree and five indicated strongly agree with the statement (Blumberg et al., 2008).

A Likert scale was chosen as it was simple to understand, easy to code for statistical purposes, fast to deploy, and could be administered remotely (Zikmund, 2003). Online surveys are low cost, easy to administer, have a high speed of data collection, and have geographic flexibility (Blumberg et al., 2008). The Likert scale was also ideal for factor analysis and could be used to identify attitudinal statements that have patterns which could represent underlying attitudinal dimensions (Brace, 2008). Given the limitations of time and costs in this study and the fact that the population were existing web users, an online survey was arguably the best choice for collecting this type of data (Blumberg et al., 2008).

4.7. Measurement Instrument Design

The questions in the survey were constructed from existing literature on trust measurement. Trust is not measured directly but is done by measuring the antecedents of trust such as ability, benevolence and integrity. Various studies were consulted and relevant questions were identified similar to the method employed by Yoon (2002). Since no interpersonal trust scales existed within the context of an online social network, the selected items were adapted to the context of online social networks. This technique was employed in order to establish content validity, since the items had been used successfully in similar research. The four main constructs of ability, benevolence, integrity and propensity to trust have been well covered in studies by Ganesan and Hess (1997), Gefen (2002), Jones and Leonard (2008), and Tan and Sutherland (2004).

While Ermisch, Gambetta, Laurie, Siedler and Urig (2009) highlighted a variety of problems in measuring trust using a survey because trust questions are attitudinal and partly because the questions are too generic, they proposed an alternative of performing incentivised experiments with monetary rewards. This would have been too costly and cumbersome in this instance and the benefits would not have outweighed those of a Likert scale survey. Olsen & Olsen (2000) analysed various methods of researching trust and proposed two acceptable methods of conducting trust research; a lab experiment using a game including a “social dilemma” or a field survey. The field survey was appropriately selected in this case.

In order to measure the effect of the proposed eight characteristics of online social networks on interpersonal trust, statements were created to reflect attitudes towards each one of the four fundamental constructs of ability, benevolence, integrity and

propensity to trust. This resulted in a survey of items grouped into eight independent variables, three dependant variables and one moderating variable. Multiple items were used to measure each construct, as Gliem and Gliem (2003) showed that single item measurement scales contain significant measurement error and are unreliable. An individual item cannot categorise answers in many groups and so it becomes impossible to discriminate on a granular level and precision is lost (Gliem & Gliem, 2003). The questions were phrased from the perspective of the trustor (the person doing the trusting) towards the trustee. All statements were designed to be positive towards trust, as McKnight & Chervany (2001) highlighted that negative statements about trust should not be included as there is a conceptual difference between trust and distrust.

The key constructs of ability, benevolence, integrity, and propensity of trust were conceptualised as defined by Gefen (2002) but customised to the research context. Ability was conceptualised as having the skills and competence to maintain a relationship online, benevolence as the belief that contacts in the users' Facebook networks would deal responsibly and respectfully with access to their information, and integrity was conceptualised as abiding by the rules of conduct of a personal relationship. Propensity to trust was conceptualised as an individual's general willingness to trust others as per Mayer et al. (1995).

A host of existing trust scales have been developed by well cited authors. Perhaps the most popular is Rotter (1967) whose scale measures general trust between others and society, and Rempel et al. (1985) whose scale measures trust in interpersonal relationships. While these trust scales were focussed on real world

trust, their work was extended into various online scales as catalogued by Chen and Fong (2010).

In an effort to reduce response biases the survey questions were presented in a randomised order to the respondent. To further reduce biasing and measurement errors, the word trust was not included in the survey until the very end.

The following table shows the elements of the survey as well the source where the measurement scale was adapted from. A copy of the blank survey is included in Appendix A.

Table 5 The elements of the survey and sources of the measurement scale

Construct	**Source / Scale Adapted From**	**Cronbach's Alpha**
Qualifying Questions	Slyke et al. (2004)	N/A
Personal Profile	Joinson et al. (2010)	Not Provided
Personal User generated Content	Caverlee et al. (2008)	Not Provided
Connections	Zeng et al. (2009)	Not Provided
Browse Networks	Boyd (2008), Zeng et al. (2009)	Not Provided
User intentions	Boyd (2008), Haythornthwaite (2005) Ellison et al. (2007), Matzat (2010) Ridings and Gefen (2004), Pollet et al. (2011)	Not Provided
Network Structure	Ellison et al. (2007), Boyd and Ellison (2009), Wellman et al. (1996)	$\alpha = 0.83$
Offline / Online convergence	Ellison et al. (2007)	$\alpha = 0.70$
Entertainment	Venkatesh (1999), Sun (2010)	$\alpha > 0.9$
Ability	McKnight et al. (2002)	$\alpha = 0.88$
Benevolence	Ganesan & Hess (1997 McKnight et al. (2002)	$\alpha = 0.84$
Integrity	McKnight et al. (2002)	$\alpha = 0.82$
Natural Propensity to Trust	Jones and Leonard (2008) Krasnova, Kolesnikova & Gunther (2010) McKnight et al. (2002) Chen and Barnes (2007) Lee and Turban (2001)	$\alpha = 0.86$

Construct	Source / Scale Adapted From	Cronbach's Alpha
Trust in an Online Social Network	Seppanen et al. (2007) Zaheer et al. (1998) Planck, Reid & Pullins (1999) Larzelere and Huston (1980)	Not Provided
Demographic Information	Slyke et al. (2004)	N/A

4.7.1. Error Checking and Control Logic within the Survey

The survey was coded into Survey Monkey with automated checks to stop invalid data being collected. This was done in an effort to reduce systematic and non-sampling errors. All questions were coded to require a response so that the respondent could not continue in the survey unless all questions had received an answer.

The qualifying questions were set to divert any unsuitable respondent, which was defined as not having an active Facebook account and not based in South Africa, to a message informing them that they did not qualify to participate in the research and thanking them for participating.

All questions were closed ended and required a single mouse click to indicate an answer on the Likert scale. Only one question asking for demographic racial information included a text box for racial group 'other'. This approach of hard coding all answers prevented any invalid data from being captured in responses.

4.8. Pre-Testing of the Survey

The survey was pre-tested with 20 Facebook users to determine whether the survey was readable, easy to understand, reliable, valid and to check for errors as recommended by Brace (2008).

In terms of reliability, the questions were tested to ascertain whether they read well, were easily understandable and free from ambiguity and double meaning. In order to verify validity, the survey was tested for correct response codes, whether the response codes provided sufficient discrimination, and whether the questions and responses answered the brief. Respondents were also asked to look out for spelling mistakes, navigation mistakes in the online platform and to measure how long the survey took to complete. The survey was also checked for question sequencing and clarity as recommended by Lee and Turban (2001).

The pilot study followed the identical procedure for the proper questionnaire in terms of distribution and online collection platform. Feedback from the pre-test was incorporated into the final version of the survey. The following changes were made to the survey once the pre-test feedback was received:

- The survey instructions were edited to be shorter, clearer and easier to read;
- The context of the survey was explained in the welcome page to provide a definition of a Facebook friend and the meaning of the word ‘transaction’ in the context of the survey;
- Question headings were removed as they referred to the theoretical constructs being tested in the questions. This would have caused some response biasing;
- A host of demographic qualifying questions were initially placed at the start of the survey. These questions were moved to the end of the survey and only two qualifying questions were kept at the beginning;
- All statements in the Likert scales were shortened to be less wordy for ease of reading and faster completion;

- Repeated use of the word 'offline' was changed to the easier to understand terminology of 'real world';
- All questions were reviewed and double negatives were corrected; and
- All references to 'friends' were changed to 'all of my friends' to stop users incorrectly interpreting scale items as referring to only some of their Facebook friends.

4.9. Reliability and Validity of the Research Instrument

4.9.1. Reliability

Key aspects of instrument design include establishing its reliability, content validity and construct validity (Hair, Black, Babin, Anderson, & Tatham, 2005). Reliability is the extent of the consistency among the items that compose a scale. The statistical validity of the constructs was determined by running a factor analysis to get the Cronbach's Alpha value as per Lee and Turban (2001) and Yoon (2002). The Cronbach's Alpha for internal consistency and reliability for the Likert scale were determined using IBM SPSS software version 19 and interpreted as per Gliem and Gliem (2003). Coefficients greater than 0.5 (due to the short scales) were considered acceptable (Gliem & Gliem, 2003) and indicated the extent to which the multiple items belonged together. The item reliability was used to determine the amount of variance in an item due to the underlying construct rather than to error.

4.10. Data Analysis and Interpretation

The survey results were analysed statistically in order to uncover relationships between the input constructs and online interpersonal trust as per the research

proposition. Data from the online survey was downloaded already numerically coded so that it could be imported easily for use in SPSS. Data was checked for correctness by reading through the answers and looking for anomalies, and performing tests in Microsoft Excel to look at the minimum and maximum values obtained for each answer. This ensured that all data was within the expected ranges and that the statistical analysis could begin.

The data analysis was done in four parts of sample description, descriptive statistics of the scale items, scale reliability and structural equation modelling (SEM) to test the model in AMOS.

4.10.1. Structural Equation Modelling (SEM)

Structural equation modelling is a statistical technique that combines confirmatory factor analysis (CFA) and the structural model into a simultaneous test (Hoe, 2008). SEM was employed in this study as the aim was to determine the inter-relationships between constructs that had already been established in theory and therefore the analysis was confirmatory rather than exploratory. SEM was judged to be the most appropriate data analysis method over simpler techniques such as regression, as the aim was to simultaneously determine the impact of all variables contributing towards the model (Gefen, Straud, & Boudreau, 2000).

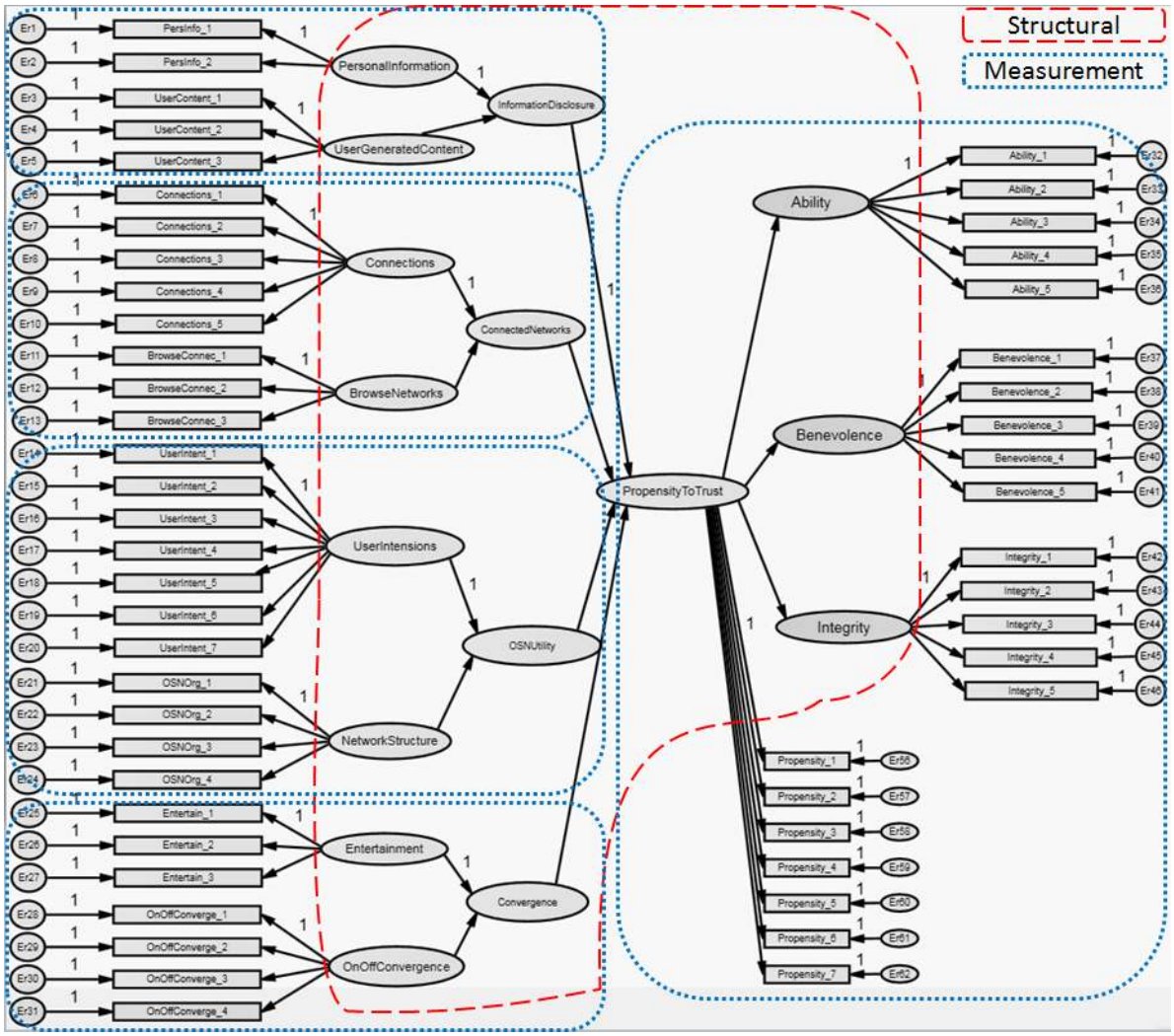
SEM uses comparison of covariance matrices to determine the relationship of multiple variables that may be correlated with one another (Byrne, 2010). SEM has the ability of expanding theory development as it can assess multiple interrelated dependence relationships (Byrne, 2010). SEM models the relationships between multiple independent and dependant variables simultaneously, while regression is only able to analyse one link at a time. This allows the researcher to answer

research questions in a single, systematic and comprehensive way (Byrne, 2010). The graphical interface of SEM allows the researcher to characterise real world processes easier than by proposing a set of complex mathematical equations.

4.10.2. Structural and Measurement Models in SEM

A SEM analysis is split into a structural model and a measurement model. The structural model assesses the relationship among the independent and dependant variables, while the measurement model assesses the loadings of the measurements on their constructs (latent variables) (Gefen et al., 2000). The following diagram shows the proposed structural and measurement models.

Figure 6 The Measurement and Structural components of the model



4.10.3. Aims of the SEM analysis

The aim of the SEM analysis was to test whether the research data fit the proposed model as per the research proposition. In order to achieve this, the proposed model was coded into AMOS version 19 as the initial model. The model was then passed through multiple sets of iterations to refine and improve the model. The ultimate aim was to provide as parsimonious a model as possible with the best goodness of fit indices. The SEM analysis produced estimates of the parameters of the model and estimates of model fit. There are a number of standard measures of model fit in SEM.

4.10.4. Measures of Model Fit

SEM scholars recommend considering more than just one of the following indicators (Hoe, 2008). Garver and Mentzer (1999) recommended using the non-normed fit index (NNFI), the comparative fit index (CFI) and the root mean squared approximation of error (RMSEA) as well as the relative Chi-Square (X^2/df) while Boomsma (2000) recommended just Chi-Square (X^2/df) and RMSEA for simplicity.

The goodness of fit (GOF) measures that were used in this analysis were the:

- Ratio of X^2 to degrees of freedom (X^2/df) known as CMIN or relative Chi-Square;
- Non-normed fit index (NNFI) / Tucker-Lewis index (TLI);
- Comparative fit index (CFI);
- Root mean square error of approximation (RMSEA) ;

4.10.4.1. Chi Squared (X^2) and Degrees of Freedom (DF)

Chi-square is one of the most common indicators of fit. A low value of Chi-square indicates non-significance and therefore good fit. Non-significance means there is little difference between the actual and predicted values (Hair et al., 2005). Chi-Square is sensitive to sample size, especially above 200, and therefore the number of samples was limited to 200. Large sample size would increase the risk of Type I error. The interpretation of Chi-Square is counterintuitive and therefore the ratio of Chi-Square to degrees of freedom is a simpler measure of fit (Byrne, 2010). In AMOS this parameter is known as CMIN, indicating the minimum discrepancy. A guideline for CMIN was CMIN < 3.0 to indicate satisfactory model fit, while CMIN < 2.0 indicated good model fit.

4.10.4.2. Root Mean Squared Approximation of Error (RMSEA)

RMSEA measures the mean discrepancy between the population estimates from the model and the observed sample values. Since RMSEA measures the discrepancy in terms of the population and not the sample it is affected by sample size. According to some authors (Hair et al., 2005), the recommended acceptable value of RMSEA to indicate good model fit is RMSEA < 0.1, however Hoe (2008) stated that RMSEA < 0.05 indicates good fit, RMSEA < 0.08 indicates reasonable fit and RMSEA between 0.08 and 0.1 indicates mediocre fit.

4.10.4.3. Non-normed Fit Index (NNFI) or Tucker-Lewis Index (TLI)

The NNFI is a goodness of fit indicator also known as the Tucker-Lewis Index (Byrne, 2010). The aim of the NNFI is to compare the proposed model to a null model, and measure parsimony by assessing the degrees of freedom between the

proposed and null models. The NNFI is resilient to sample size. The recommended acceptable threshold is NNFI > 0.9 (Hoe, 2008).

4.10.4.4. Comparative Fit Index (CFI)

The comparative fit index is similar to the NNFI as it is derived from a comparison of a hypothesised model to the independence (null) model. This index overcomes the limitation of sample size effects and measures the covariation of the data (Byrne, 2010). While the NNFI and CFI are similar, it has been recommended that CFI takes preference over NNFI (Bentler, 1990). Values for the CFI range from 0 to 1 and the recommended acceptable threshold is CFI > 0.9 (Hoe, 2008).

4.10.4.5. Root Mean Square (RMR)

The root mean square is a residual based index that represents the average residual value derived from comparing the variance – covariance matrices of the hypothesised model and the sample data (Byrne, 2010). The parameter that will be used in this study is the standardised RMR which varies between 0 and 1. A good model fit has a RMR < 0.05.

4.10.4.6. Akaike Information Criterion (AIC)

The Akaike Information Criterion (AIC) tests the differences between models and therefore is a relative rather than an absolute measure. The AIC addresses the issue of parsimony in the model fit. AIC carries a penalty of degrees of freedom rather than sample size and is therefore impacted by the number of estimated parameters. The AMOS output shows several competing models and the one with the lowest AIC represents the best model (Byrne, 2010).

4.10.4.7. Goodness of Fit Summary

The following table presents a summary of the various model fit indices and their threshold values to indicate good model fit.

Table 6 Summary of Goodness of Fit indices and threshold values

Measure of Fit	Target
CMIN (X2/df)	CMIN < 3
RMSEA	< 0.08 or < 0.05
NNFI	> 0.9
CFI	> 0.9
RMR	< 0.05
AIC	Relative

4.11. Research Limitations

The limitations of the research methodology include:

- Snowball sampling was initiated from the researcher's own social network which could have invited response bias where the respondents demonstrated similar characteristics and demographics and low variance.
- The sample size in this study was very small compared to the population size. This could have led to sampling errors.
- The target population was not determined beforehand and therefore the significance and relevance of the sample was undetermined, which limited the applicability of this study to other contexts.
- The time allocated to this study did not allow for a longitudinal study which could have produce different results. It has been argued by some researchers (Gefen et al, 2008; Mayer et al. 1995) that trust is both a belief and attitudinal issue, therefore some aspects of trust are longitudinal in nature as trust is developed over time. This approach could have influenced results.

- Online social capabilities are continuously improving and being upgraded to the latest technology. This study should therefore be repeated as the technology evolves over time.
- Using Facebook as a proxy for all other new style OSNs may not have resulted in results relevant to other platforms.
- The Likert scale survey asked questions about the user's perceptions which may have introduced central-tendency or acquiescence bias.
- Respondents may have been asked to recall their attitudes and emotions towards events that occurred in their recent online experience. This may have led to an availability bias.
- The research instrument did not discriminate on the level of online experience of the respondent. Users with varying levels of experience could have responded differently.
- Gefen (2002) noted that it was questionable whether the instrument should include the word trust and whether this introduces a bias. It was noted that in many previous trust scales the word trust had been included, but in this case it was excluded until the very end.
- The impact of culture on interpersonal trust was not included in this model although Olsen & Olsen (2000) demonstrated that online trust varies between cultures. Gender influences were also excluded in the interest of simplicity, despite Riedl et al. (2010) concluding that gender differences in online trust exists. These exclusions may have influenced the data.
- This research did not extend to explain or determine causality amongst the variables.

5. RESULTS

5.1. Introduction

The following chapter presents the results from the online survey. The chapter is organised as follows:

- Descriptive statistics of the sample
- Data reliability analysis
- Descriptive statistics of the measurement scales
- Structural equation modelling to test the research proposition

5.2. Data Analysis

The survey was loaded online onto Survey Monkey and a collector link to the survey was created. This link, together with an invitation to participate in research, was posted onto Facebook and published within the visibility of a few thousand users. The survey was kept open until 200 valid responses were received which took eight days. Since this study relied on structural equation modelling which is based on Chi Square, data collection was stopped at 201 since Chi – Square degrades with an overly large sample. Facebook users were asked to complete the survey and pass on the survey link to users within their network using Facebook messaging in order to execute a snowball sample. Based on the nature of the sampling method it was not possible to determine the response rate.

The survey data was downloaded from Survey Monkey in numerical format and imported to Microsoft Excel to verify the validity of the responses and for data cleansing. All incomplete surveys were discarded. Quality controls were employed on Survey Monkey to stop invalid responses such as forcing the user to answer all

questions before proceeding. The data therefore contained only valid responses that were already numerically coded for analysis. Once the data was cleaned it was imported into IBM SPSS version 19. All variables were created in SPSS and one variable, UserIntent_1, was recoded to reflect the correct direction of the ordinal scale.

5.3. Descriptive Statistics of the Respondents

The online survey included two qualifying questions and 13 demographic questions in order to filter responses and describe the sample. The qualifying questions were used to filter whether the respondent progressed to the survey questions and were not used in the data analysis. This descriptive statistics analysis was performed by the researcher. The SPSS output for this section is included in Appendix B.

5.3.1. Sample Description

The survey received 273 responses in eight days of which 201 were considered valid. Seven responses were excluded as the respondents did not have active user accounts on Facebook, while 20 responses were excluded as the respondents were not living in South Africa. A further 45 responses were excluded because they failed to answer all questions. The researcher was satisfied with the achieved sample size that was deemed satisfactory to perform SEM analysis and answer the research question.

5.3.2. Qualifying Questions

The following table presents a summary of the two Qualifying Questions that were asked at the beginning of the survey:

Table 7 Summary of the Responses to the Qualifying Questions

Country of Origin	**Response Percent**	**Response Count**
South Africa	100.0%	201
Other	0.0%	0
Active Facebook account	**Response Percent**	**Response Count**
Yes	100.0%	201
No	0.0%	0

5.3.2.1. Country of Origin

This study was designed to remove any potential cultural differences in attitudes and therefore limited respondents to South Africa. Of the 273 responses received 20 were excluded as they were not from South Africa.

5.3.2.2. Facebook User Account

Since Facebook was chosen as the OSN of interest, respondents were filtered on whether they had an active Facebook account. The filtered data therefore shows 100% of respondents as having active Facebook Accounts.

5.3.3. Demographic Questions

The following table presents a summary of the 13 Demographic Questions that were asked at the end of the survey. This data is presented in graphical format in Appendix C.

Table 8 Summary of the Responses to the Demographic Questions

Gender	**Response Percent**	**Response Count**
Male	58.7%	118
Female	41.3%	83
Age	**Response Percent**	**Response Count**
17 or younger	0.0%	0
18-20	1.5%	3

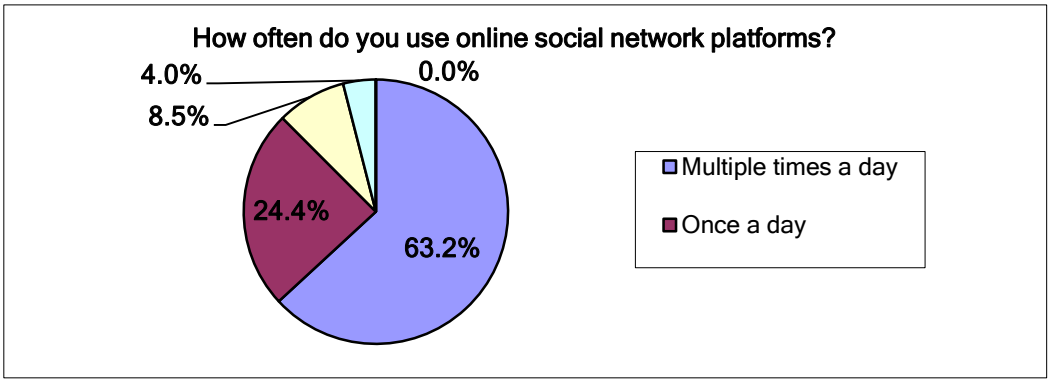
21-29	38.8%	78
30-39	44.8%	90
40-49	10.4%	21
50-59	3.0%	6
60 or older	1.5%	3
Racial Group	**Response Percent**	**Response Count**
White	80.6%	162
Black	9.5%	19
Indian	9.0%	18
Coloured	1.0%	2
Asian	0.0%	0
Other (please specify)		3
Level of Education	**Response Percent**	**Response Count**
Less than high school degree	0.0%	0
High school	16.9%	34
Bachelor degree	33.3%	67
Honours	31.8%	64
Masters	16.9%	34
Doctorate	1.0%	2
Employment Status	**Response Percent**	**Response Count**
Full time	71.6%	144
Part time	5.0%	10
Self Employed	15.9%	32
Student	5.5%	11
Retired	0.5%	1
Unemployed	1.5%	3
Experience on Facebook	**Response Percent**	**Response Count**
0 years	0.0%	0
< 1 year	0.5%	1
1-3 years	2.0%	4
> 3 years	97.5%	196
Web User Level	**Response Percent**	**Response Count**
Basic	5.0%	10
Intermediate	41.8%	84
Advanced	53.2%	107
Transacted Online in last 6 Months	**Response Percent**	**Response Count**
Yes	92.5%	186
No	7.5%	15
OSN User Accounts	**Response Percent**	**Response Count**
Facebook	99.0%	199
Twitter	55.2%	111

LinkedIn	62.2%	125
MySpace	6.5%	13
Other	13.9%	28
None of the above	0.5%	1
Experience on OSNs	**Response Percent**	**Response Count**
0 years	0.5%	1
< 1 year	3.5%	7
1-3 years	20.4%	41
> 3 years	75.6%	152
Facebook Friends	**Response Percent**	**Response Count**
Less than 50	10.9%	22
Between 51 and 200	30.8%	62
More than 200	58.2%	117
OSN Use	**Response Percent**	**Response Count**
Personal use	50.7%	102
Business use	0.5%	1
Both	48.8%	98
OSN Usage Frequency	**Response Percent**	**Response Count**
Multiple times a day	63.2%	127
Once a day	24.4%	49
Once a week	8.5%	17
Once a month	4.0%	8
Less than once a month	0.0%	0

From the table it can be seen that the sample was more male (58.7%) than female (41.3%) and typically (83.6%) between the ages of 20 and 40 years. Interestingly 10.4% of the sample was aged between 40 and 49, showing that Facebook has appeal across a wide age group. The racial distribution was heavily skewed with 80% of respondents being classified as white. The level of education showed that 83% of respondents obtained a university degree while the remaining 17% completed high school. The majority of the sample was employed full time at 71.6% while 15.9% of the sample was self-employed. This skewed sample was likely caused by the sampling method where the researcher contacted respondents within his online social network. This will be considered when interpreting the results in Chapter 6.

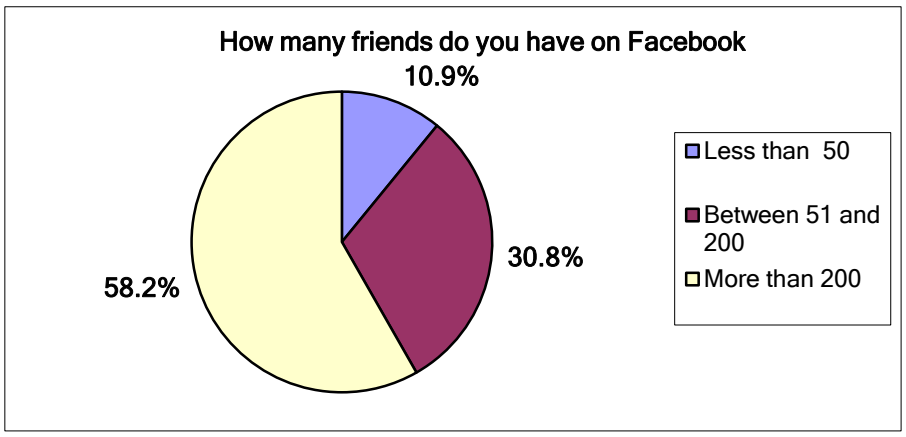
Particularly interesting was the level of online and OSN experience and skill in the sample which was measured through a number of questions. The sample was dominated by experienced internet users where 97.5% of respondents indicated more than three years of online experience. Users were asked to rate their own skill level of internet usage. Just over half the sample (53.2%) indicated that they considered themselves advanced, while 41.8% indicated an intermediate level of skill. Together 95% of the sample indicated intermediate or advanced skill. Three quarters of the sample (75%) have used OSN platforms for over three years while 20.4% have 1-3 years of experience. This indicates a well experienced sample that likely has become familiar with online interaction and the platform. The majority of respondents use OSN platforms multiple times a day. This further indicates a sample of experienced users as 87.6% of users use an OSN at least once a day.

Figure 7 Frequency of OSN usage



The number of Facebook friends measure was included to determine size of the respondents' Facebook networks as a measure of experience and comfort of using an OSN. The network sizes were smaller than anticipated. While 58.2% of the sample had more than 200 friends (large network), 30.8% had between 51 and 200 friends (medium network), and 10.9% of the sample had less than 50 friends.

Figure 8 OSN Network size measured by number of Facebook friends



Respondents indicated which OSN networks they had an active account on. The majority of users had accounts on Twitter (55.2%) and LinkedIn (62.2%) in addition to Facebook. Only 6.5% of respondents had an account on MySpace which is not surprising due to its lack of popularity in South Africa. Interestingly 13.9% indicated having accounts on "Other" OSNs which indicates the proliferation of OSNs. This measure of OSN use further substantiates that the sample is well experienced in using OSN platforms.

Respondents were asked whether they had transacted online in the last six months, where a transaction referred to interacting as a buyer or seller in online banking, classifieds, auctions or an online store. A large majority of users indicated that they had transacted online (92.5%). This further suggests that the group was well experienced online, and likely already trusting of the internet as a medium.

The final demographic question asked users to indicate their purpose of using OSN platforms. The sample was almost evenly split between personal use (50.7%) and combined personal and business use (48.8%). This suggests that OSN use extends beyond a personal social experience and is gaining traction as a business tool. Interestingly only one respondent (0.5%) used OSNs exclusively for business use.

It is important to consider that based on the non-random sampling method the sample was subject to biases such as inclusive sampling where respondents shared common characteristics and potential low variance. The researcher was satisfied with the sample, particularly with the level of online and OSN experience of the respondents.

5.4. Data Reliability

The reliability of the scales used in the survey was tested in a variety of ways. One key measure of reliability is internal consistency and one of the most commonly used indicators of this is Cronbach's Alpha (Pallant, 2010). Given the short five point Likert scale used in this research and the low number of scale items, a generous Cronbach's Alpha coefficient of 0.5 is acceptable (Pallant, 2010). The following table serves as a guideline for assessing Cronbach's Alpha values.

Table 9 Guidelines for Cronbach Alpha coefficients (Gliem & Gliem, 2003)

> 0.7 Excellent
> 0.6 Good
> 0.5 Acceptable
<= 0.5 Questionable

The following table presents a summary of the Cronbach's Alpha coefficients for all scales used in this research.

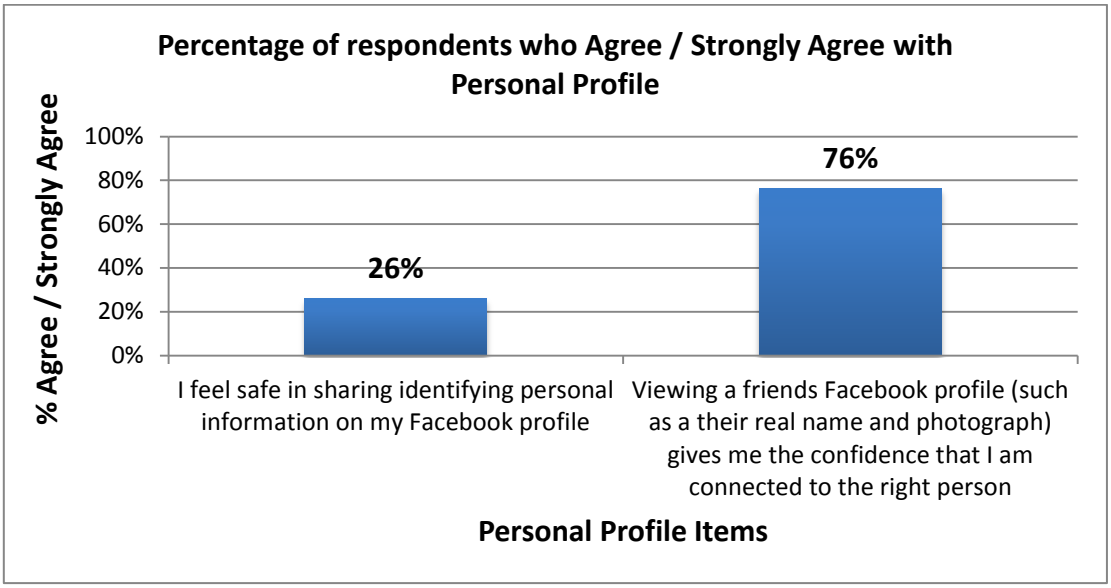
Table 10 Summary of Internal Consistency of measurement scales

Measurement Scale	Number of Items	Cronbach's Alpha	After scale item removed	Average Inter-item Correlation	Rating
Independent Variables					
Personal Profile	2	0.284		0.167	Poor
User Generated Content	3	0.475		0.241	Poor
Connections	5	0.797	(0.808)	0.436	Excellent
Browse Networks	3	0.448	(0.475)	0.217	Poor
User Intentions	7	0.587	(0.592)	0.168	Acceptable

Measurement Scale	Number of Items	Cronbach's Alpha	After scale item removed	Average Inter-item Correlation	Rating
Network Structure	4	0.669	(0.688)	0.352	Good
Online/Offline Convergence	4	0.548	(0.621)	0.234	Acceptable
Entertainment	3	0.807		0.606	Excellent
Dependant Variables					
Ability	5	0.690	(0.697)	0.315	Good
Benevolence	5	0.828	(0.835)	0.495	Excellent
Integrity	5	0.845		0.523	Excellent
Moderating Variable					
Natural Propensity to Trust	7	0.774		0.326	Excellent

Of the eight independent variables, Personal Profile showed the lowest coefficient and inter-item correlation. This could have been caused by the low number of items in the scale which can affect the Cronbach's Alpha value. The graph below is included to aid in understanding this low coefficient. The graph shows the two items in the scale and the percentage of users who either agreed or strongly agreed with the items. The large discrepancy between the two items shows that the items are not measuring the same concept. This could be explained by the diction used in "I feel safe in sharing personal information on my Facebook profile". The words "personal information" were intended to mean the user's real name, photograph, location, current "status" updates and personal opinions, but perhaps this was not interpreted correctly by the respondents. Another explanation of this discrepancy is that the two items measured the different constructs of verification and privacy. This problem was not detected during the pre-testing of the questionnaire.

Figure 9 The Personal Profile scale showing a mismatch



Browse Networks and User Generated Content resulted in coefficients below 0.5. Since the aim of the research was to test a complete model, these scales were included in the model for SEM despite their low reliability. The rest of the scale items achieved either acceptable, good, or excellent reliability scores.

5.4.1. Improvements to the Cronbach's Alpha coefficient

The following improvements were made to the independent variable scales by deleting items in an effort to improve the Cronbach's Alpha score.

- The Connections scale was improved from 0.797 to 0.808 by deleting the item "I like the fact that I can connect with friends". This offered a marginal improvement.
- Browse Networks was improved from 0.448 to 0.475 by deleting the item "I am more inclined to transact with someone who is part of a friend's network".
- User Intentions was increased from 0.587 to 0.592 by deleting the item "I have used Facebook to learn more about people at my workplace".

- Network Structure was improved from 0.669 to 0.688 by deleting the item "I feel free to post content on any topic I feel is relevant at the time".
- Online Offline convergence was improved from 0.548 to 0.621 by deleting the item "My experience on Facebook is more engaging than on older online platforms".

The dependant variables were based on existing scales and generally achieved Cronbach's Alpha coefficients over 0.8 as expected. These measurement scales however were further improved in the following ways:

- Ability was improved from 0.690 to 0.697 by deleting the item "Friends on Facebook treat me the same online as they do offline".
- Benevolence was marginally improved from 0.828 to 0.835 by deleting "My Facebook friends have made sacrifices for me in the past".

5.5. Descriptive Statistics for the Measurement Scales

5.5.1. Summary of the Measurement Scales

The following table presents the descriptive statistics for the summated scales for each measurement scale. The scale means vary between 2.70 and 3.72 indicating a tendency to agree with the measurement scales. The negative skewness for all but two scales indicates scales are skewed to the right, suggesting agreement with the measurement scales.

Table 11 Descriptive Statistics for the Summated Scales

Scale	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
PersonalProfile	201	2	5	3.30	.776	.603	.063	-.329
UserGeneratedContent	201	1	5	3.23	.734	.538	-.146	-.444
Connections	201	1	5	3.45	.670	.449	-.244	-.318
BrowseNetworks	201	1	5	3.28	.708	.501	-.198	-.259
UserIntention	201	2	5	3.72	.572	.328	-.158	-.477
NetworkStructure	201	1	5	3.55	.668	.446	-.346	.648
OnOffConvergence	201	1	4	2.70	.670	.449	.010	-.276
Entertainment	201	1	5	3.71	.700	.490	-.353	.530
PropensityToTrust	201	2	5	3.39	.535	.287	-.295	.433
Ability	201	1	4	2.96	.622	.386	-.404	-.010
Benevolence	201	1	4	2.75	.659	.435	-.358	.070
Integrity	201	1	4	2.93	.638	.406	-.332	-.352

5.5.2. Independent Variables Summary

The proposed model contained eight scales of independent variables. Each of the scales was measured by a number of items on a five point Likert scale. The following table summarises the responses for the eight scales used in this study. Comprehensive descriptive statistics for each item are included in Appendix D.

Table 12 Summary of the means of the independent variable scale items

Item	Mean
Personal Profile	
I feel safe in sharing identifying personal information on my Facebook profile	2.70
Viewing a friend's Facebook profile (such as a their real name and photograph) gives me the confidence that I am connected to the right person	3.91
User Generated Content	
I feel comfortable seeing others sharing personal information on their status updates	3.14
I believe that the profile information that my friends post is accurate and true	3.48
I share more identifying personal information on Facebook than on other online platforms	3.06
Connections	
I like the fact that I can connect with friends	4.37

Item	Mean
My Facebook connections are considered real world friends	3.11
Connecting with friends on Facebook assists me in maintaining a real world relationship with that contact	3.42
My Facebook friends would keep their commitments made to me	3.00
I would describe my Facebook friends as honest	3.34
Browse Networks	
Before connecting with another Facebook user I browse their friends list	3.08
I enjoy browsing my friends network of connections	3.21
I am more inclined to transact with someone who is part of a friends network	3.56
User Intention	
I use Facebook to meet new people	4.06
I only use Facebook to connect with people I have an existing offline relationship with	3.63
My network of offline friends has not increased in size from using Facebook	3.62
I have used Facebook to check out someone I met in person	3.78
I have used Facebook to learn more about other people in my workplace	3.20
I use Facebook to keep in touch with my old offline friends	4.17
All of my Facebook friends are people I first met offline	3.58
Network Structure	
I feel free to post content on any topic I feel is relevant at the time	3.21
I am interested in the content that my friends post on Facebook	3.61
Viewing a friend's status updates, photos and other personal information helps me maintain a relationship with that person	3.54
I use Facebook to connect more with individual people, than to connect with a group of people around a specific topic	3.85
Online Offline Convergence	
I use Facebook as a substitute for engaging with friends in person	2.19
My experience on Facebook is more engaging than on older online platforms	3.50
Interacting on Facebook can be a substitute to meeting in person	2.17
It is possible to maintain a real world relationship by interacting with that friend on Facebook	2.95
Entertainment	

Item	Mean
I find using Facebook entertaining and enjoyable	3.91
Facebook is more fun and entertaining than other online community websites	3.68
Having fun on Facebook makes me comfortable to use it more	3.55

5.5.3. Dependant Variables Summary

The following table presents a summary of the moderating variable Natural Propensity to Trust and the dependant variable scales of Ability, Benevolence and Integrity.

Table 13 Summary of the means of the dependent variable scale items

Item	Mean
Natural Propensity to Trust	
In general people do care about the wellbeing of others	3.58
In general most people keep their promises	3.28
Most people are honest in their dealings with others	3.26
Most people are concerned about other people's problems	2.97
Most people care enough to be helpful rather than just looking out for themselves	3.18
I generally give people the benefit of the doubt when I first meet them	3.82
I usually trust people until I am given a reason not to trust them	3.67
Ability	
I consider Facebook friends real friends	2.91
Friends on Facebook treat me the same online as they do offline	3.13
It is possible to complete a business transaction with any Facebook friend	2.71
I would feel confident in transacting online with a Facebook friend	2.88
I believe a Facebook friend is capable of delivering on his promises	3.15
Benevolence	
My Facebook friends have made sacrifices for me in the past	2.97
All of my Facebook friends care for me	2.44
In times of need, my Facebook friends have made an effort to assist me	3.00

Item	Mean
I believe all of my Facebook friends would act in my best interest	2.69
All of my Facebook friends are interested in my wellbeing, not just their own	2.64
Integrity	
All of my Facebook friends would keep their promises	2.62
All of my Facebook friends are honest in their dealings with me	2.89
I believe that the content that I post on Facebook will be treated with respect by other users	3.03
All of my Facebook friends would not take advantage of me in a transaction	2.88
Should I transact with a Facebook friend I believe they will be honest	3.25

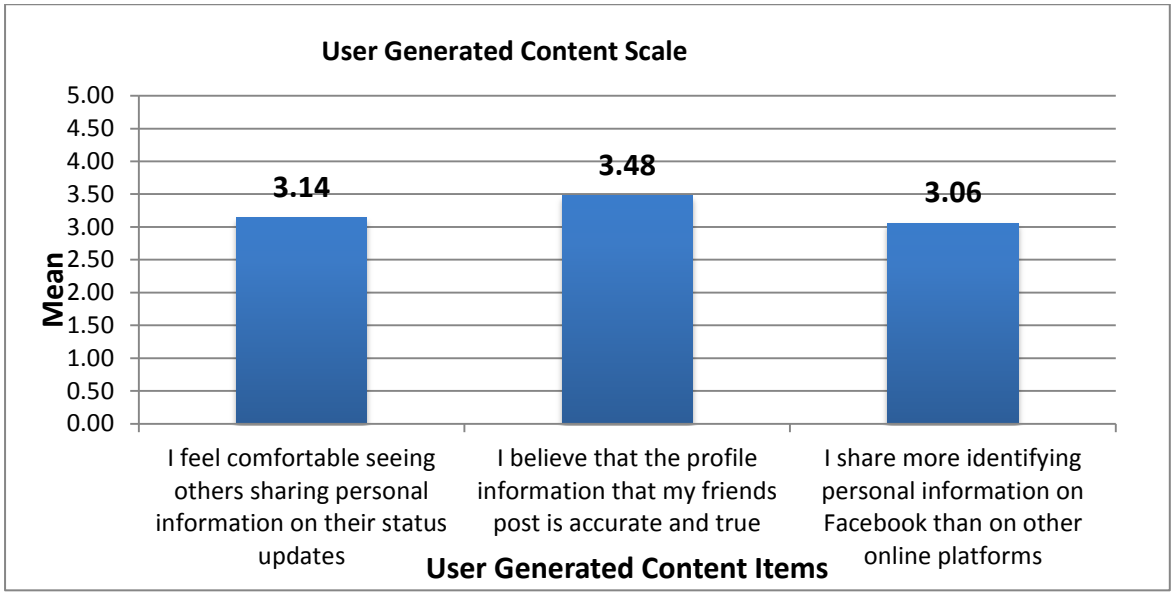
5.5.4. Personal Profile

The aim of the Personal Profile scale was to assess the impact of a user's online personal profile. The literature review supported a difference between older type OSN platforms where users had user accounts but used pseudonyms to mask identity rather than real names and photographs to openly display their identity. This scale was the least successful of the eight independent variable scales probably because of the unclear diction used in the first item regarding "personal information". The scale mean score was 3.30 with variance of 0.603. This scale however did show good support for the second item demonstrating that a real name and photograph in a user profile does impact the personal connection.

5.5.5. User Generated Content

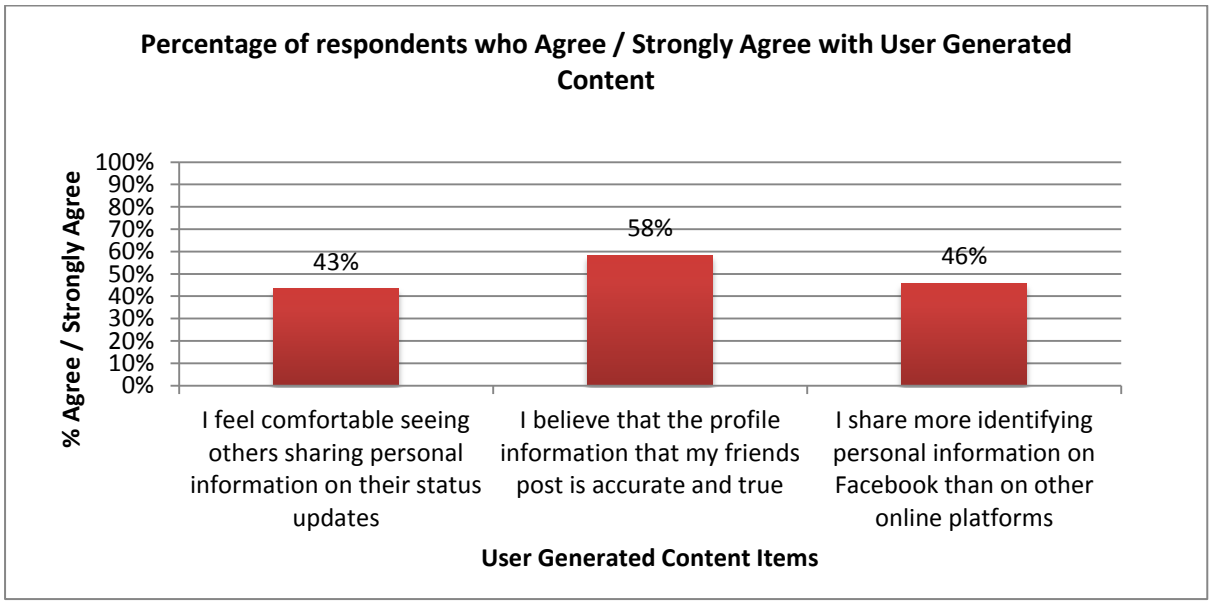
User Generated Content was the second scale in the Personal Information Disclosure construct. The scale was made up of three items. While the means of the individual items were all above 3.0, the scale mean was 3.23 with variance of 0.538 and the Cronbach's Alpha was below 0.5.

Figure 10 Means of the items in the scale User Generated Content



The following graph aims to explain the low Cronbach's Alpha with less than 50% of respondents indicating agree or strongly agree.

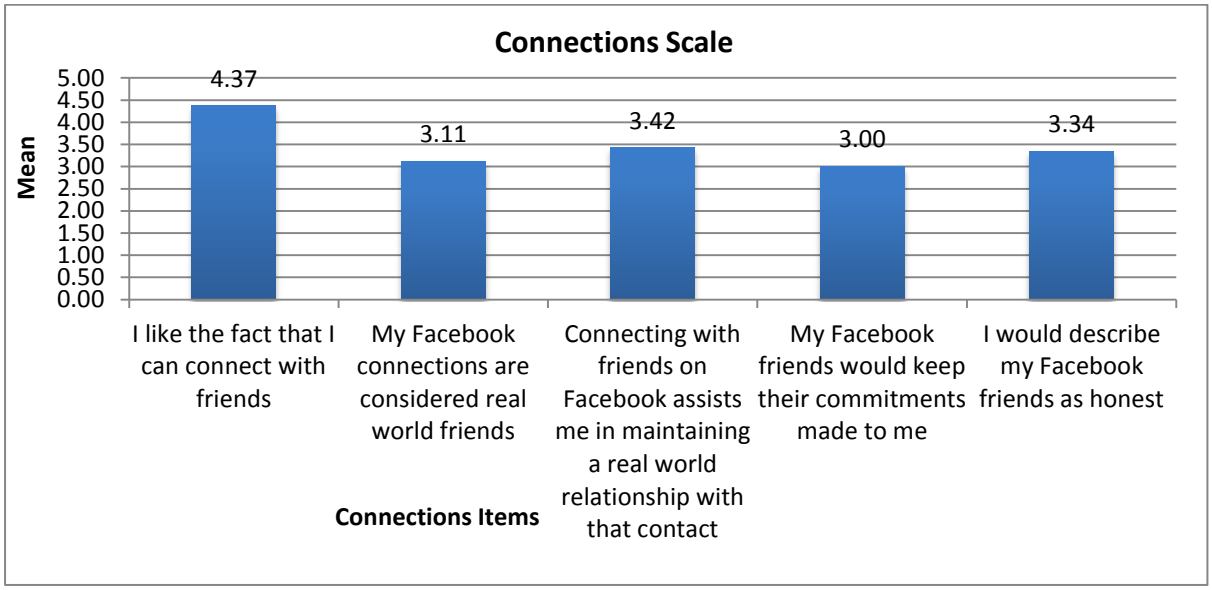
Figure 11 Respondents who agreed/strongly agreed with User Content



5.5.6. Connections

The Connections scale aimed to assess whether users identified that having connections to other users contributed towards the model. All items obtained means above 3.0, with the overall scale mean being 3.45 and variance 0.449. The fourth item “My Facebook friends would keep their commitments to me” was not well received, with only 32% of respondents indicating agree or strongly agree. This could be attributed to the context of the scale being interpreted inconsistently by respondents.

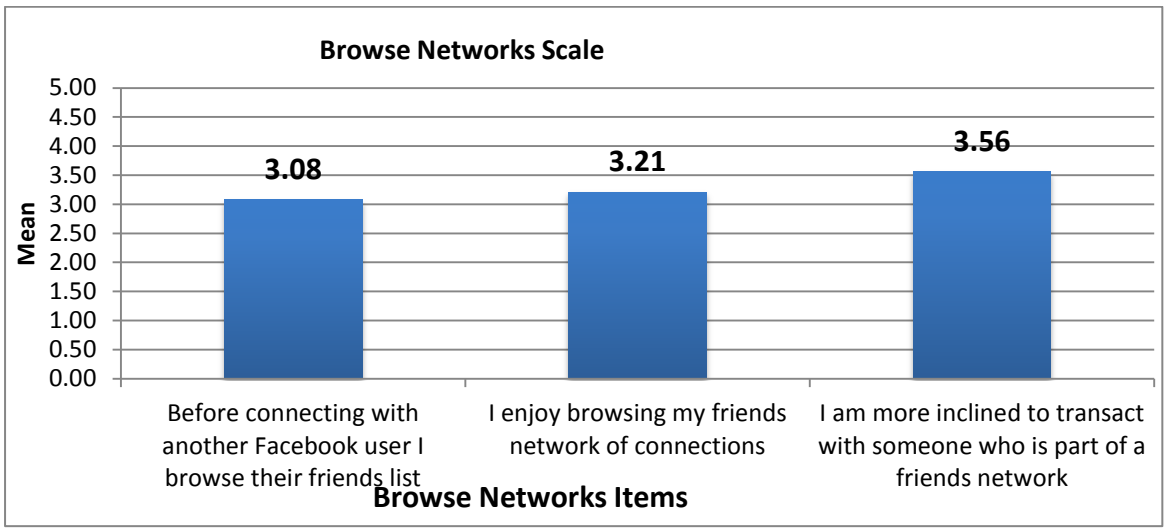
Figure 12 Means of the items in the scale Connections



5.5.7. Browse Networks

The Browse Networks scale contained three items which all received means over 3.08, showing support for users traversing other networks and enjoying doing so. The scale mean was 3.28 with variance 0.501. The aim of this scale was to determine whether the ability of users to see friends of their friends contributed the model. This scale generated a low Cronbach’s Alpha coefficient of 0.448.

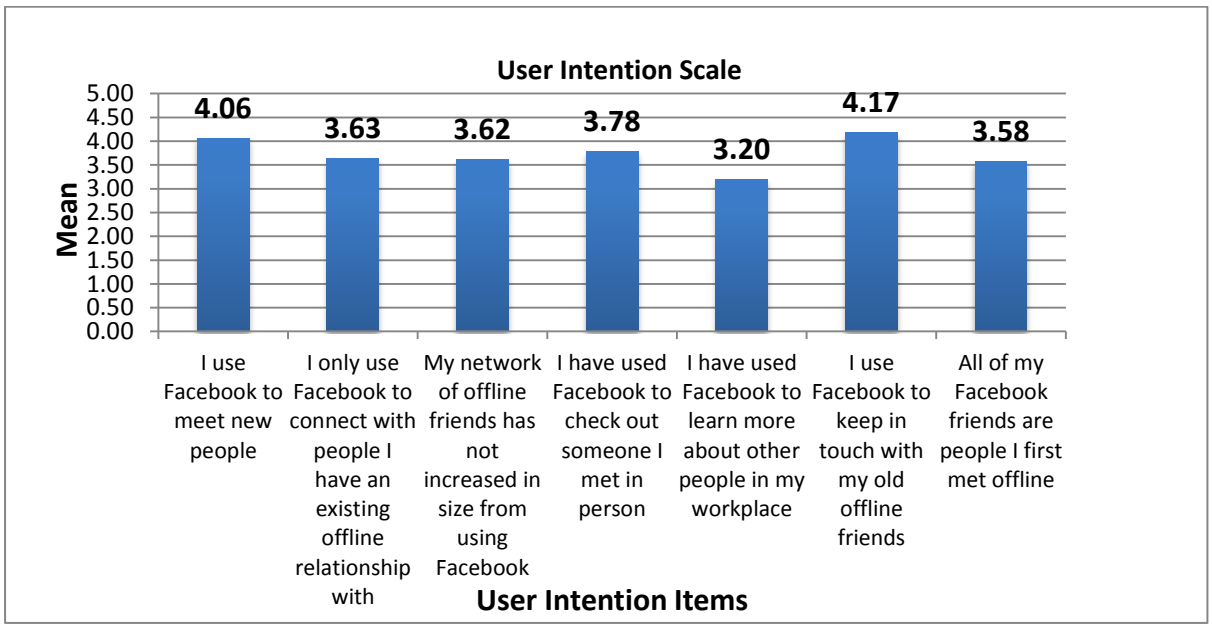
Figure 13 Mean of the items in the scale Browse Networks



5.5.8. User intentions

The User Intentions scale sought to determine the impact of what the respondents used Facebook for. This scale had seven items and achieved means between 3.20 and 4.06 with a scale mean of 3.72 and variance of 0.328. This scale shows support for the idea that Facebook is used to maintain existing offline relationships but surprisingly also for meeting new people which was not expected.

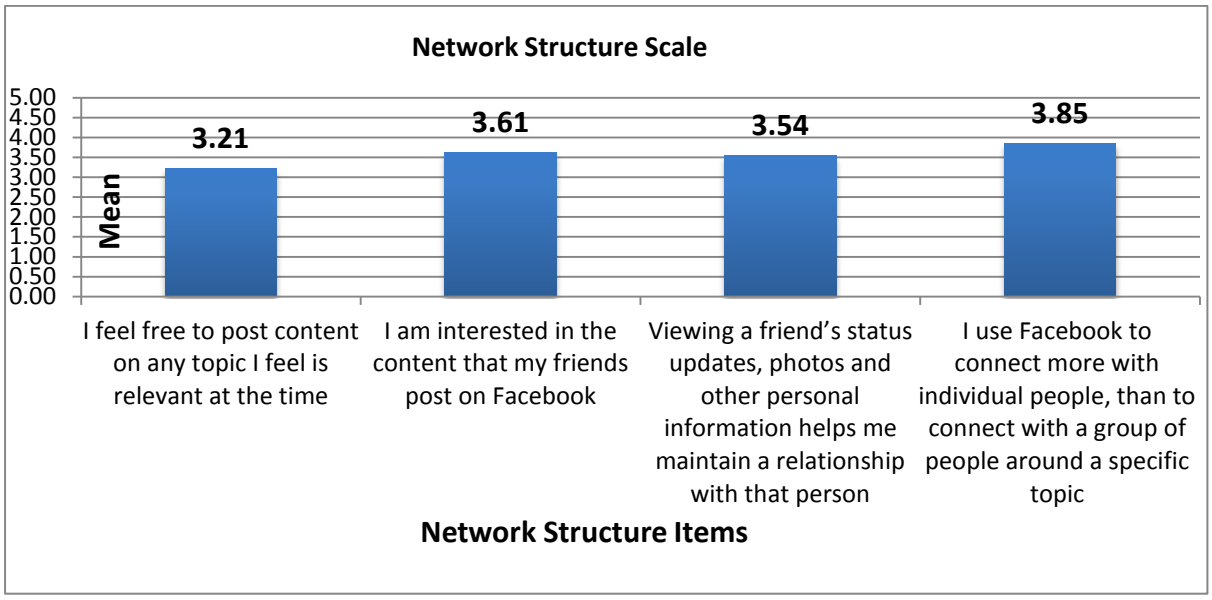
Figure 14 Means of the items in the User Intentions scale



5.5.9. Network Structure

The Network Structure scale sought to determine the impact of how the OSN is used. The first scale item only received 48% agree / strongly agree while the fourth item received 75% agree / disagree. The scale mean was 3.55 and variance 0.446. The results show support for a network organised around individual people.

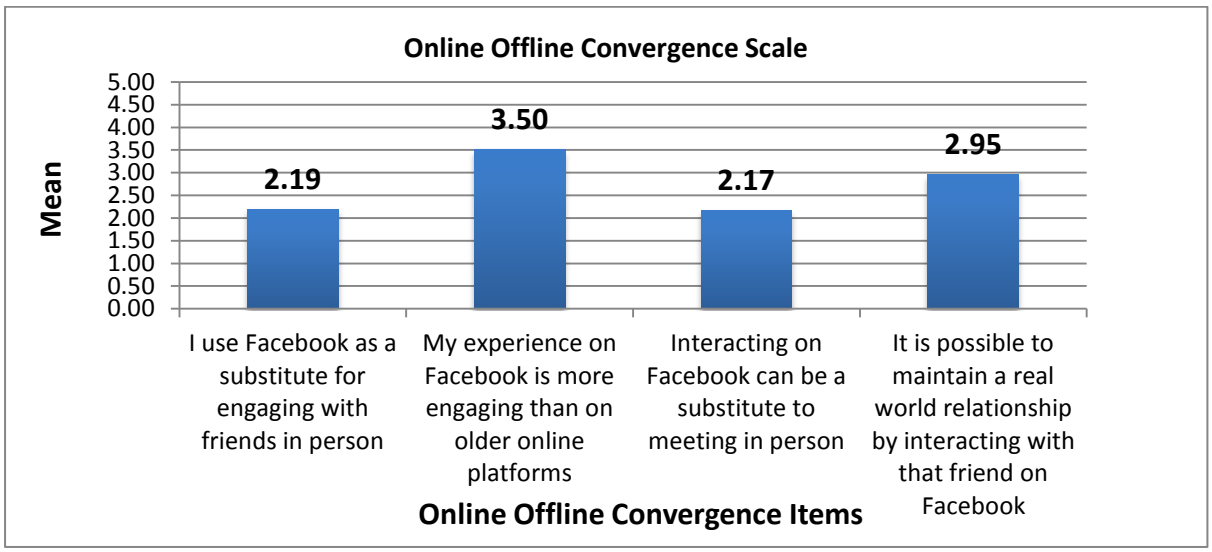
Figure 15 Means of the items in the scale Network Structure



5.5.10. Online / Offline Convergence

The Online Offline Convergence scale included four items that asked respondents whether they perceived online and offline interaction to be converging. This was supported in the literature and anticipated to be influenced by the rich experience enabled by the latest web technology on Facebook. Three of the four means in this scale were below 3.0, indicating that this scale may not contribute well to the proposed model, and that perhaps the internet has yet not improved as much as expected. The scale mean was 2.70 and variance 0.449. Most importantly the scale item that tested whether users perceived their Facebook experience as more engaging received good support.

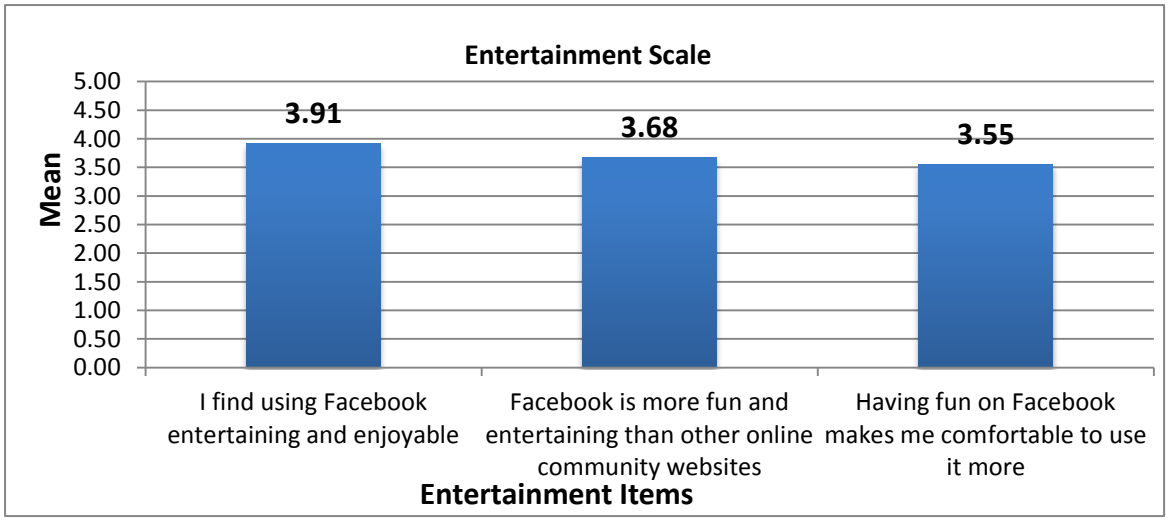
Figure 16 Means of the items in the scale Online Offline Convergence



5.5.11. Entertainment

The Entertainment scale included three items and assessed whether users perceived enjoyment of using Facebook contributed to the model. This scale performed well with the lowest item having a mean of 3.55 and variance 0.490. The scale mean was 3.71.

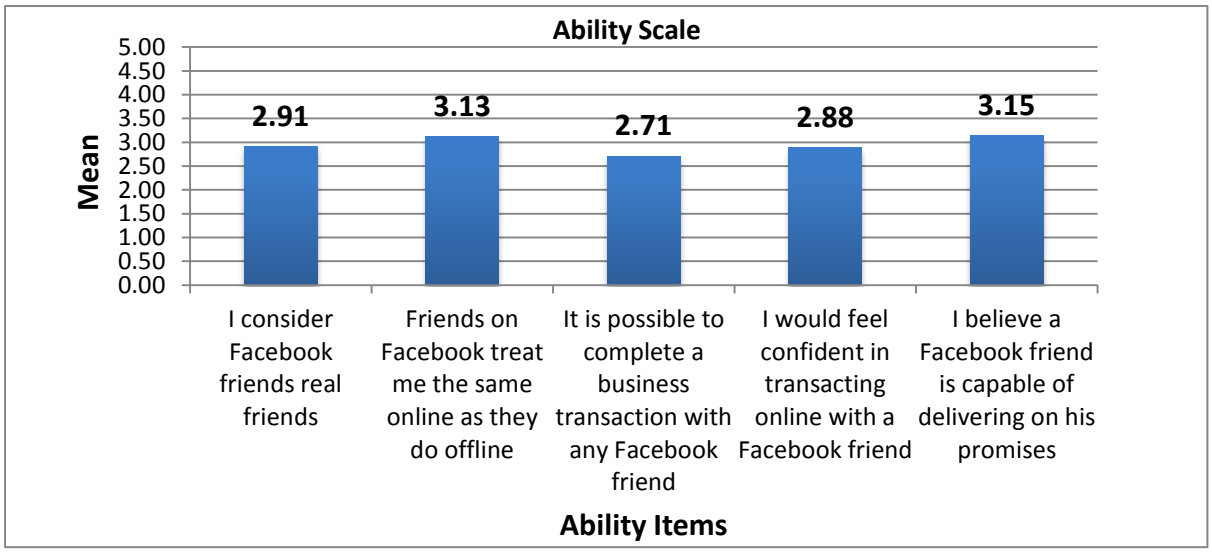
Figure 17 Means of the items in the Entertainment scale



5.5.12. Dependant Variable - Ability

The Ability scale measured one of three dependant variables that together make up the interpersonal trust construct. Ability refers to the competence of another user, the belief that a Facebook friend has the ability to do what you ask of them. This scale included five items and performed well in terms of reliability and means. The scale mean was 2.96 with variance was 0.286 and the item results are shown in the figure below. It was interesting to find that the item "it is possible to complete a business transaction with any Facebook friend" received the lowest score, as a transaction requires trust between parties to be successful.

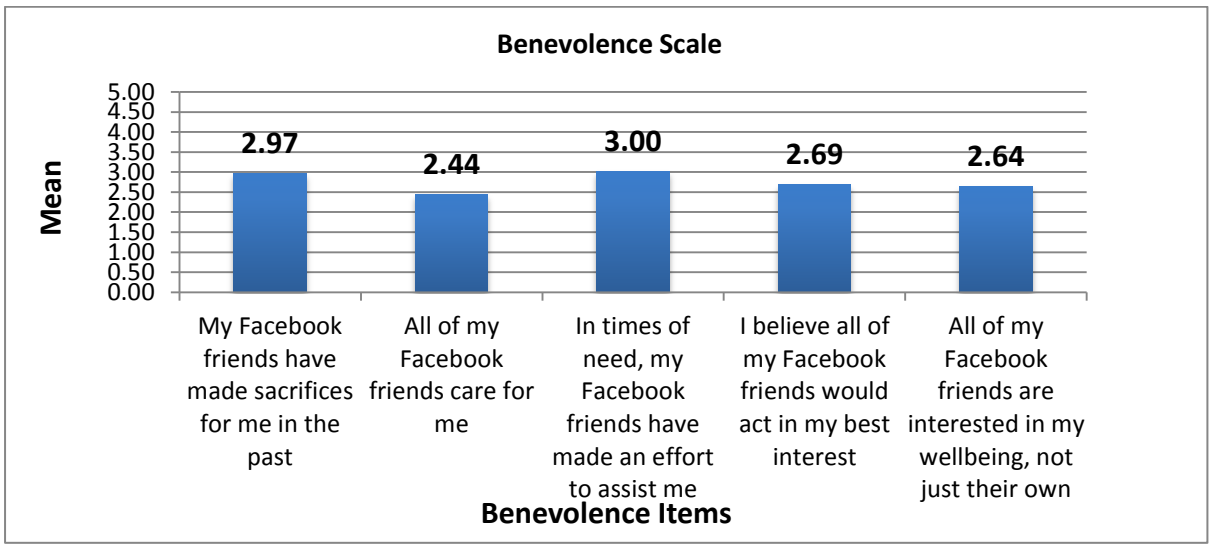
Figure 18 The results of the dependant variable Ability scale



5.5.13. Dependant Variable - Benevolence

The Benevolence scale included five items that assessed whether users perceived faith in other users that they would act in their best interests. This scale performed well with a mean of 2.75 with variance of 0.435 despite four of the five items having a mean below 3.

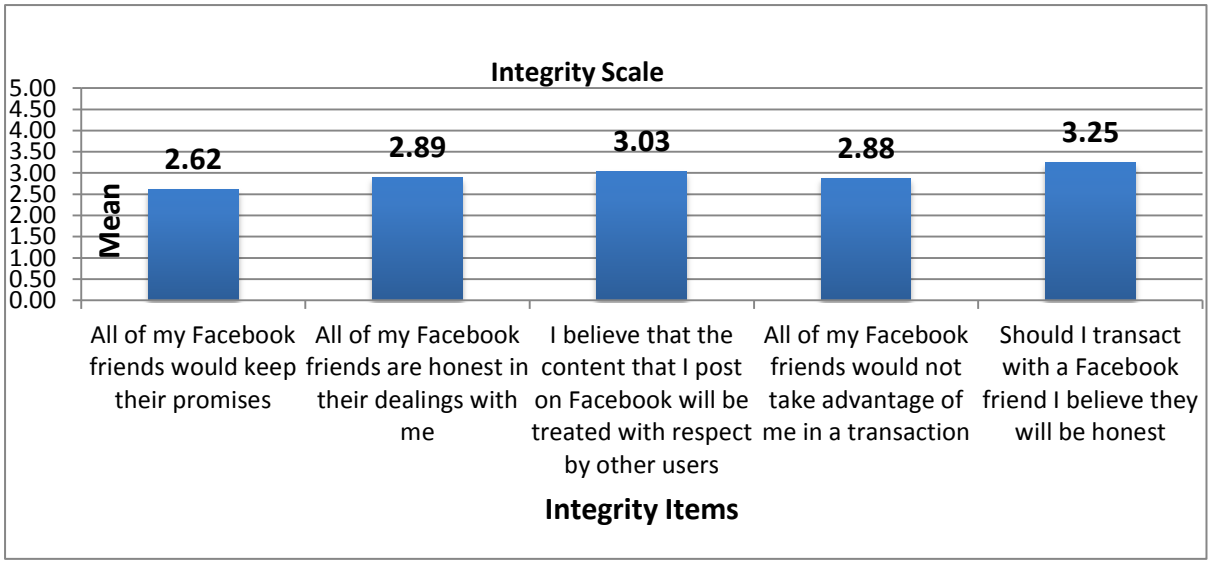
Figure 19 The results of the dependant variable Benevolence scale



5.5.14. Dependant Variable - Integrity

The Integrity scale measured the third and final component of interpersonal trust. Integrity refers to the respondent's perception that other users will not take advantage of their relationship and would act predictably. The scale mean was 2.93 with variance of 0.406. The item results are shown in the figure below.

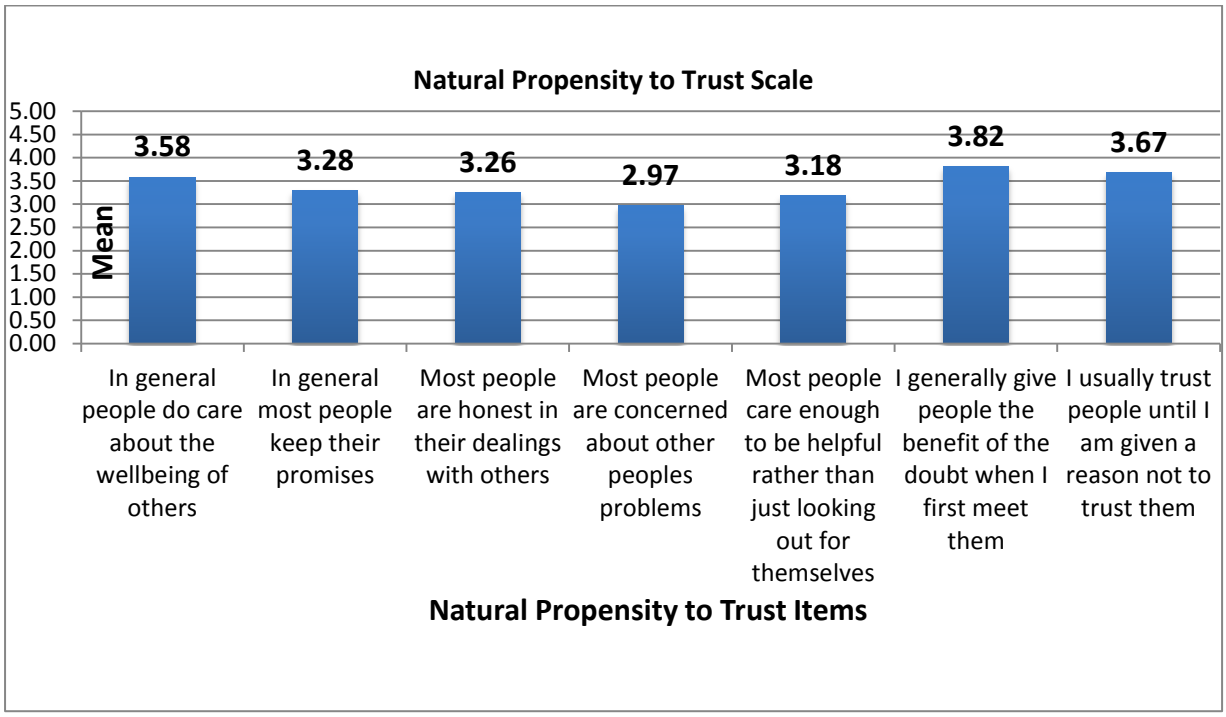
Figure 20 The results of the dependant variable Integrity scale



5.5.15. Moderating Variable - Natural Propensity to Trust

The Natural Propensity to Trust scale was included as a moderating variable and measures the respondent's innate perception of trust with other people. This scale was included in the proposed model as online interpersonal trust is not only built on the platform, but the individual's characteristics and personality play a significant role. The scale mean was encouraging at 3.39 but variance was low at 0.287.

Figure 21 The moderating variable Natural Propensity to Trust



5.6. Structural Equation Modelling (SEM)

The proposed model was drawn graphically into AMOS version 19.0.0 in order to perform structural equation modelling (SEM). The aim of the SEM analysis was to answer the research question and determine whether the proposed model fit the data. The format of the SEM analysis was that of testing the validity of a causal structure as per the method discussed in Byrne (2010).

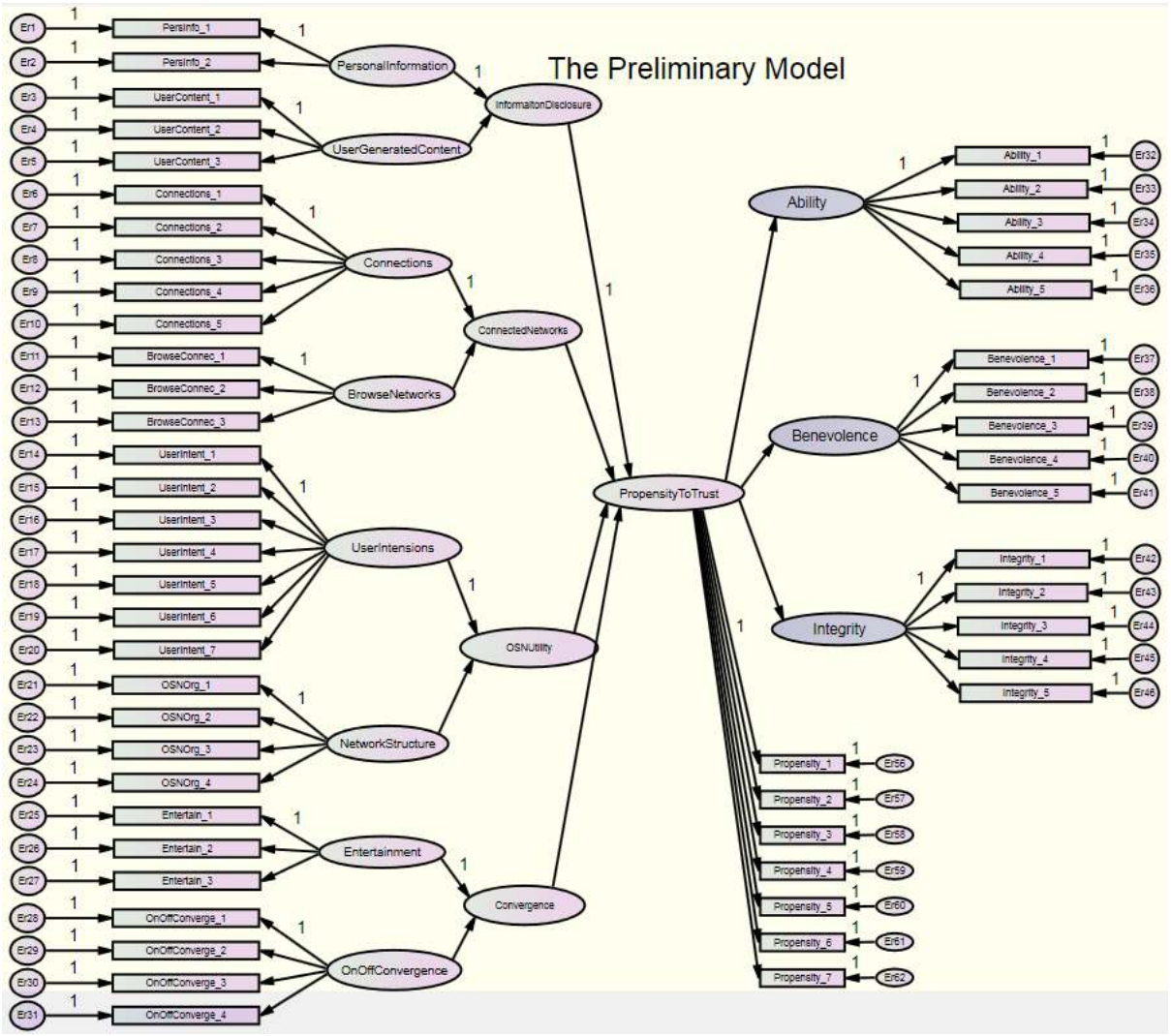
The SEM approach in this research was to test the measurement model and then estimate a structural model. Once the structural model was specified, a number of iterations were performed to determine a parsimonious model with the best goodness of fit indices. The overall model fitness was determined by evaluating multiple measures of goodness of fit simultaneously.

5.6.1. The Preliminary Model

The preliminary model is the model that was proposed in Chapter 3 of this report and represents an untested and unverified model. The model structure presented in the diagram below shows the items making up the eight independent variable scales, the level of abstraction made up of four sub-scales, the moderating variable and the three dependant variables used to measure interpersonal trust. The single headed arrows show the anticipated relationships between the variables in the model. No correlations between the variables were expected.

The preliminary model was processed in AMOS with the following key model performance indicators. This SEM analysis aimed to determine the relationships between the variables as well as to assess the validity of these relationships. It was therefore critical to determine the validity of the scale items in the measurement model before proceeding to the structural model.

Figure 22 The preliminary model as input into AMOS SEM software



5.6.2. Preliminary Structural Model

Once the measurement model had been tested for reliability the structural model was analysed. The model was analysed using SEM and the initial goodness of fit indicators are shown in the table below. Multiple measures have been presented, however the decision will be made based on X^2/df and RMSEA as per Boomsma (2000). The following table shows the initial measures of fit from the preliminary model.

Table 14 The preliminary model estimated parameters

Parameter	Preliminary Model	Target
Chi Square	2935	Lowest (relative)
CMIN (X^2/df)	2.225	CMIN < 3
RMSEA	0.078	< 0.08 or < 0.05
RMR	0.119	< 0.05
NNFI / TLI	0.568	> 0.9
CFI	0.568	> 0.9
AIC	3159	Relative

The results from the initial test of fit were encouraging as there was evidence for support of the research proposition. The CMIN index showed a model that fit the data with a value well below 3.0 and within the recommended limits for good fit. The RMSEA indicated a reasonable fit of < 0.08. The RMR, NNFI and CFI were all outside of the recommended targets indicating that there was room for the model to be improved.

5.6.3. Structural Model Improvements

The previous section demonstrated that the initial structural model indicated support for the research proposition, but that improvements should be attempted to get the goodness of fit measures into target ranges. In an effort to improve the model a number of SEM iterations were done. The SEM model output was scored against the target metrics of model fit. Comparisons were made between the model under test and the saturated and independence models. Iterations were repeated until satisfactory metrics were achieved. In the interest of brevity all the steps in the iteration are not included, but the results are summarised in a table below. The model improvement process was iterated through eight cycles and followed this logic:

- AMOS was used to calculate the model estimates, the modification indices, and the goodness of fit measures.
- Non-significant relationships between items in the model were identified and removed. This was where Regression Weights had $p > 0.05$. Not all non-significant links were removed in the same step as too many changes in the same step could have a negative impact by changing the model too heavily (Boomsma, 2000). A $p > 0.05$ meant that the link did not contribute significantly to the model.
- In an effort to reduce Chi-Square, the Modification Indices were used to find model links where the Regression Weight was high (> 25). Adding these items to the model reduced Chi-Square and improved CMIN. These links were added one at a time in an effort to allow for each elements impact to be assessed individually.
- Links were only added where it would have made sense logically, and based on the supporting theory (Boomsma, 2000).
- Attention was paid to the direction of the link between variables ensuring that any added or removed links were consistent with literature (Boomsma, 2000).
- Standardised correlation weights were not allowed to exceed 1.0 which would have resulted in an inadmissible solution (Byrne, 2010).

The following table presents a concise summary of the multiple iterations that were completed in an effort to improve the goodness of fit models. The action taken in each intervention is shown which follows from the iteration logic detailed above.

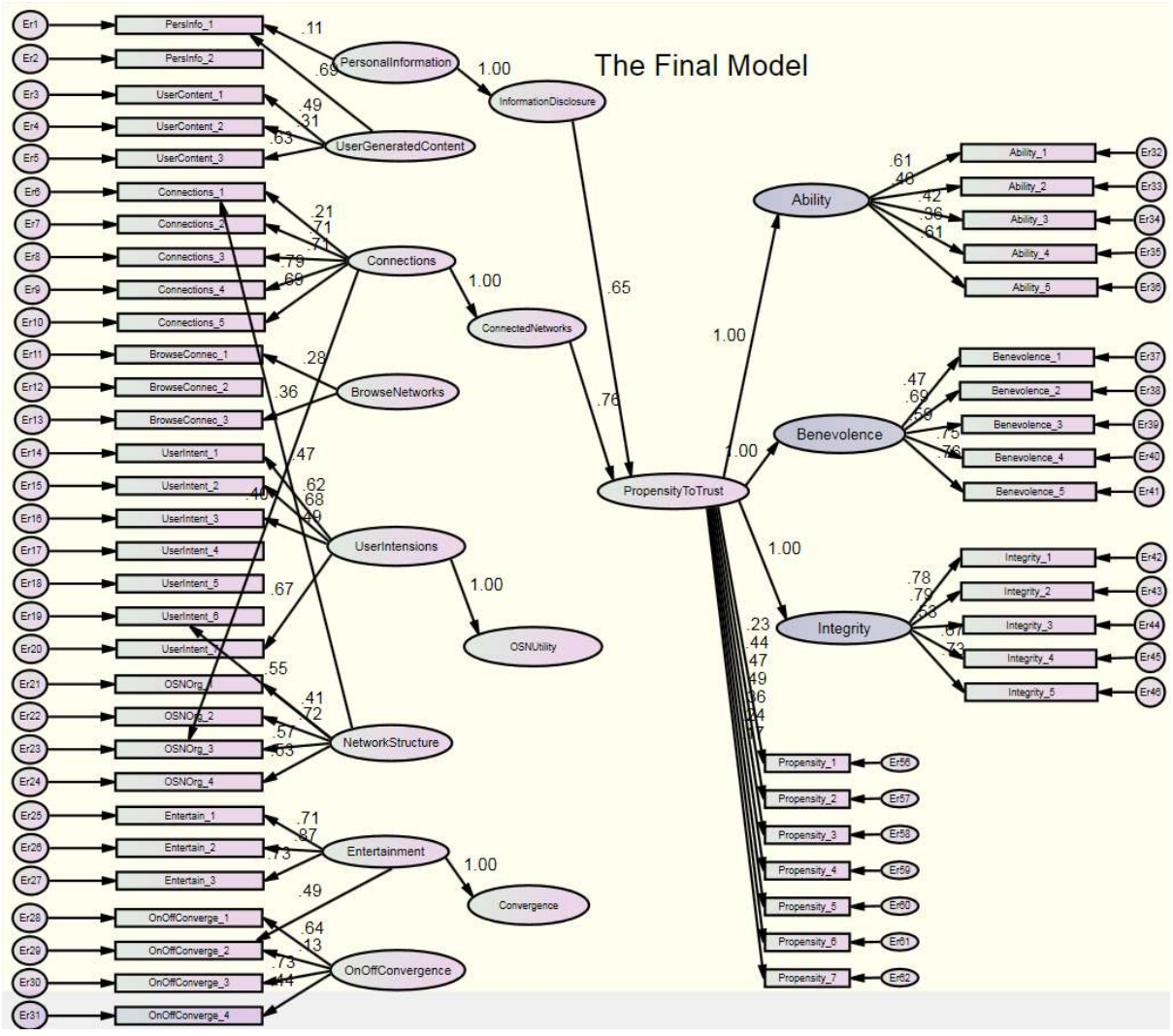
Table 15 Summary of the SEM iterations done to improve the model

Goodness of Fit Index	Preliminary Model	Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5	Iteration 6	Final Model	Target
Chi Square	2935	2936	2973	2919	2874	2830	2805	2772	Relative to degrees of freedom
CMIN	2.225	2.217	2.234	2.195	2.163	2.131	2.112	2.089	< 3.0
RMSEA	0.078	0.078	0.079	0.077	0.076	0.075	0.075	0.074	Adequate <0.08, good 0.05
NNFI / TLI	0.568	0.571	0.565	0.579	0.59	0.601	0.608	0.616	> 0.9
CFI	0.568	0.587	0.58	0.593	0.605	0.616	0.622	0.63	> 0.9
RMR	0.119	0.119	0.121	0.119	0.119	0.118	0.118	0.114	< 0.05
AIC	3159	3150	3173	3121	3078	3036	3011	2980	Compare models
Action taken from AMOS Iteration Output	Identified 11 non-significant (P>0.05) Regression Weights	Removed 5 non-significant P values	Removed 6 non sig P values No more non-sig P values in Estimates	Added in Links based on Modification Index	Added in Links based on Modification Index	Added in Links based on Modification Index	Added in Links based on Modification Index	Added in Links based on Modification Index	
		InformationDisclosure<---UserGeneratedContent UserIntent_5<---UserIntentions OSNUtility<---NetworkStructure UserIntent_4<---UserIntensions ConnectedNetworks<---BrowseNetworks	BrowseConnec_2<---BrowseNetworks PropensityToTrust<---Convergence UserIntent_6<---UserIntensions Convergence<---OnOffConvergence PropensityToTrust<---OSNUtility PersInfo_2<---PersonalInformation	PersInfo_1<---UserGeneratedContent	UserIntent_6<---NetworkStructure	OnOffConverge_2<---Entertainment	OSNOrg_3<---Connections	Iterations stopped. Satisfactory fit achieved	

5.6.4. Final Model

The final model was determined after seven rounds of iterations. The iterations were stopped when it was determined that no more changes would result in a significantly better fit to the data. The SEM output for the final model is included in Appendix E. The final model together with standardised factor loadings is shown in the figure below:

Figure 23 The improved model with standardised factor loadings



The resulting final model was significantly different from the initial model. A number of relationships between variables that were proposed did not prove to be significant. The initial model proposed that eight independent variables would contribute towards the dependant variables with one variable acting as a moderating variable.

In the first group of iterations the aim was to remove all non-significant links between variables. Eleven relationships were removed from the model but six were the most interesting as these did not deal with measurement items, but complete constructs. The removal of these links changed the model shape significantly and provided an immediate insight into the key constructs in the model. The following six links were removed:

1. InformationDisclosure <--- UserGeneratedContent
2. OSNUtility <--- NetworkStructure
3. ConnectedNetworks <--- BrowseNetworks
4. PropensityToTrust <--- Convergence
5. PropensityToTrust <--- OSNUtility
6. Convergence <--- OnOffConvergence

In the second set of iterations, links were added to the model based on the modification indices in an effort to improve the model fit. Links were only added to the model if the link agreed with the theory. While this analysis recorded multiple indicators of goodness of fit, the focus was on reducing the adjusted Chi-Square parameter CMIN. While the initial model was already below 3.00, the iterations aimed to reduce CMIN below 2.00.

The following four links were added to the model:

1. PersInfo_1 <--- UserGeneratedContent
2. UserIntent_6 <--- NetworkStructure

3. OnOffConverge_2 <--- Entertainment
4. OSNOrg_3 <--- Connections

The following table shows the final measures of model fitness after the series of iterations. The model indicated a good fit with to CMIN close to 2, and an adequate fit with RMSEA below 0.08.

Table 16 The goodness of fit indices for the final model

Goodness of Fit Index	Final	Model Fitness
Chi Square	2772	Relative
CMIN	2.089	Good < 3.0
RMSEA	0.074	Adequate < 0.08
NNFI / TLI	0.616	> 0.9
CFI	0.63	> 0.9
RMR	0.114	< 0.05
AIC	2980	Compare models

5.7. Conclusion to the Presentation of Results

This chapter presented the results of the data analysis according to the methodology in Chapter 4. The data was processed in SPSS and SEM was performed in AMOS. An online survey was hosted on the internet and snowball sampled on Facebook until 201 valid South African responses had been received. The sample was described using descriptive statistics showing a well experienced set of users in terms of internet and Facebook usage. The data reliability for the scales showed that not all scales achieved a Cronbach's Alpha > 0.5, which indicated that the measurement scales could be improved. Most importantly the research proposition was addressed in this chapter, and a good model fit was achieved after multiple iterations and changes to the model. The relevance and impact of the data presented in this chapter will be discussed in Chapter 6.

6. DISCUSSION OF RESULTS

6.1. Introduction

This chapter seeks to address the research proposition and analyse the data in the context of the research objectives. The research proposition suggested a model of online interpersonal trust where trust would be developed by eight user experience features of an online social network and moderated by the individual's propensity to trust. The previous chapter demonstrated that a good model fit was achieved but that the various the model inputs were found to be non-significant. This chapter seeks to explore the details of the model fit and discuss the contribution of each of the independent variables towards the proposed model. The results were surprising to the researcher and the impact of the findings is presented.

6.2. Discussion of the Proposed Model

6.2.1. Personal Profile

The Personal Profile construct sought to test the extent to which having a detailed personal profile on Facebook would contribute towards the model. The internet has traditionally been a medium based on anonymity, where users on traditional platforms used pseudonyms for names and did not share any personal information on their user profile. Boyd and Ellison (2009) explained that a personal profile with a user's real name was a fundamental shift in information disclosure online. It was anticipated that disclosing a user's real name would increase a user's perception of another user and improve the personal feel of the interaction. Disclosing one's real identity online acts as a social cue to other users, makes the user vulnerable to the

actions of other users, and exposes the user to greater risk (Grabner-Krautner, 2002). Therefore this was expected to influence the user's perception of trust.

This construct proved to have a significant contribution to the model. One of the sources of risk and vulnerability online is the threat caused by anonymity (Chen & Fong, 2010) which is a detractor of building trust. A personal online profile where a user discloses their real name, as opposed to a pseudonym, perhaps represents one of the simplest acts in reducing anonymity, and therefore feelings of vulnerability in the other parties. This is likely the reason that this construct performs well in the model; it makes a simple yet direct move against anonymity, which would directly influence perceptions of risk and therefore trust.

It was recently proposed by the internet superpowers of Google and Facebook that the age of internet anonymity has come to an end (Reporter, 2011; Carr-Harris, 2011) and that the internet would be a better place for everyone if users were forced to use their real names and were unable to hide behind anonymous profiles. Before the rise of the superpowers Feng et al. (2004) suggested users would be more comfortable online and trust would be higher if more information was disclosed. Olsen and Olsen (2000) also anticipated that trust would flourish on an online platform that allowed users to disclose personal information such as a user profile. This research confirms the statements made by Facebook and Google as well as supports the research of Feng et al. (2004) and Olsen and Olsen (2000) that a real name disclosed online would increase trust between users.

The limitation with this construct was that it included only two measurement scale items. This construct could have probed further aspects of a personal profile such as the impact of a user's photograph, age, location and other demographic information

applicable to a Facebook profile to further test this theme. This was a limitation of this research, however the result is still beneficial and was anticipated by the literature and the researcher (Ellison et al., 2007).

6.2.2. User Generated Content

The User Generated Content construct aimed to determine the impact of users' sharing personal information within the social network. While this is linked to the previous idea of the Personal Profile, this construct extends the Personal Profile and relates to voluntarily shared personal information. New online social networks rely on and encourage users to share photos or 'status' updates, which typically include opinions or descriptions of what they are currently doing (Boyd & Ellison, 2009). Users in an OSN are typically engaged in one of two activities; consuming or generating content (Trusov et al., 2010). This content typically includes personal thoughts or feelings. Warrington et al. (2000) showed that trust is built via social cues where people perceive opinions of each other based on the stimulii they receive from an interaction.

This construct contended that User Generated Content acts as one possible technique where social cues can be successfully transported online. Social cues aid in trust building and reduce vulnerability. Mayer et al. (1995) and Rotter (1971) included vulnerability as one of the central aspects in their well cited definition of trust, so it was anticipated that an element that reduces vulnerability would lead to increased trust.

It was therefore suprising to find that this relationship was not significant in the model. While users indicated that they shared information online, and that they believed that the information shared by connections was true this construct was not

significant. This may be attributed to the fact that the sample contained experienced OSN users who likely already have an existing offline relatiionship with their connections. Therefore information disclosure may not have the same strength of influence as an existing offline relationship does in determining trustworthiness. This may suggest that not all constructs in the model have equal power or influence, which was not considered when then model was constructed. Perhaps information disclosure would be valuable in the case where users are either new to the platform, or do not have existing strong offline bonds with their connections.

The threshold for significance was $p<0.05$ in this model but was found to be weak and insignificant with $p=0.397$ and a regression weight of 0.027. Perhaps there are alternative mechanisms at work when users share personal information online.

The Cronbach's Alpha coefficient for this scale was below 0.5. In looking closer at this measurement scale, two of three items received less than a 50% response of agree or strongly agree. This scale was likely inhibited by the diction used in the scale. The reference to 'Personal information' was not clarified before the question was posed. This omission could have lead to response biasing or a Type III error, where respondents did not interpret the questions as expected and the wrong question was answered. It would be interesting to repeat this measurement with a new set of scale items that achieved a higher level of reliability.

6.2.3. Connections

The Connections construct sought to determine the impact of users connecting to each other within the online platform. Boyd and Ellison (2009) showed that enabling users to connect to other users is a differentiating feature of a new OSN. Connections allow users on the OSN to link their profiles to other users that they are

familiar or “friends” with. Connections between users creates a sense of community within the network and makes users explicitly aware of each other. The online interaction is no longer limited to being between the user and the platform, but between connected users. This was anticipated to shift the focus of the interaction away from the platform itself to the interpersonal interaction between users. One outcome of this would be a reduction in the importance of institutional trust which exists between the user and the platform, and an increase in the relevance of interpersonal online trust between users. In terms of the relevance to interpersonal trust, this construct was considered a direct extension of real world connections between people into the online realm.

This construct was anticipated to have a significant contribution towards the model as Connections represents one of the most fundamental aspects of social interaction. This facilitates the transport of social cues and enables an online community where social capital can thrive.

It was therefore very encouraging to find that this construct was the most significant in the model. The measurement scale included five items which were all found to be significant. Of the five items, four were found to have a very strong relationship while one had a moderate relationship. Respondents indicated a very positive agreement with statements about connecting to other users and sharing the online experience with friends. The measurement scale therefore performed well with a Cronbach’s Alpha of 0.797. One theme within this construct was the fact that connections between users also existed in the real world. Users indicated that Facebook was helpful in maintaining real world friendships and that friends on Facebook were considered real friends, as opposed to just online acquaintances. This result is very

promising in terms of the impact of the new social web on online interaction. The result has significant implications for e-commerce companies and web designers in terms of including social functionality in their site designs.

This construct represents a translation of a social structure online and the result confirms that certain elements of real world human behaviour can be successfully transplanted online which was in contradiction to the literature (Grabner-Krautner, 2002; Pavlou & Ba, 2002; Yoon, 2002). This demonstrates that the internet as a medium has changed since these studies were prepared, and further justifies the need for this research to update existing literature. The concept of online connections being based on an existing offline relationship links to other constructs in the model such as User Intentions, showing that relationships between online users has changed. People are social and naturally want to interact with other people which could explain why users responded well to the connections construct. Social interaction is what the Connections construct adds to the online realm and is perhaps why new online social networks are so successful.

The positive results indicate that online users respond well to having connections to other users. While this research proposed that eight features of an OSN would generate trust, having connections between users is the most important. Web designers and online business decision makers should include functionality where online users can connect to each other. The sample in this study contained well experienced internet and OSN users and therefore this construct provided an insight into the perception of experienced Facebook users but did not provide insight into new inexperienced users. The perception of new internet users is an important avenue for future research.

6.2.4. Browse Networks

It was anticipated that allowing users to see who their connections were connected to would influence perceptions of trust between users. Boyd and Ellison (2009) showed how allowing users to traverse other users' lists of connections was a defining feature of the new online social networks. This would enable users to gather a sense of familiarity and a frame of reference of who a potential connection was already connected to. This was anticipated to influence the ability and integrity scale, as the user would feel more confident that an existing contact's contact would act reliably and honestly. The measurement scale for this construct aimed to determine whether Facebook users browsed lists of connections belonging to other users before connecting with that user in an attempt to establish familiarity or credibility.

Surprisingly, this construct was found to have a non-significant contribution towards the model. The regression coefficient was 0.013 with a high p value of 0.786. The Cronbach's Alpha coefficient was low at 0.448 showing an unreliable scale. The measurement scale included only three items where perhaps more items would have been better, and therefore there is an opportunity to improve the measurement instrument.

Despite this construct proving to be non-significant, the response to the third scale item was encouraging. This read "I am more inclined to transact with someone who is part of a friends' network". This item received a strong mean of 3.56 and indicated the user's perception towards being comfortable in transacting with another user who was not in their immediate network. This construct captures one of the main themes of this research, and perhaps one of the most important outcomes. Online users are more comfortable and more likely to transact with users who are in their (extended)

network. This may be intuitive in the real world, and perhaps online, but new online social networks have provided the platform for the online relationship to occur.

The non-significant result of the overall scale can be explained from existing theory and by considering the sample. The literature supported the idea that users of new online social networks connect with other users that they already have an existing offline relationship with (Ellison et al., 2007). This would perhaps remove the need for users to verify whether potential new connections were connected to anyone they already knew. The potential new contact would perhaps be an existing offline connection where familiarity had previously been established. This explanation offers just one possibility for the non-significance of this scale.

The sample in this research included Facebook users who have more than 200 connections and more than three years' experience on the platform. This high level of experience may have influenced the results, where users who have established networks are comfortable with user profiles and do not feel the need to verify them further by traversing a potential connection's profile. It may be possible that inexperienced users would browse other users' networks in an effort to establish the credibility of potential connections which provides an opportunity for future research where the population should have greater variance.

6.2.5. Intentions of Users

The Intention of Users construct referred to the reasons users created an account on a new OSN. Haythornthwaite (2005) noted that users joined OSNs for different reasons. The literature highlighted that users on older platforms typically created user accounts in order to meet new people or to join a user community that was centred on a specific topic of interest. User intention within a new OSN was expected

to be interaction with existing offline connections. This would contribute towards the trust model by virtue of users having familiarity with their connections, and not engaging in risky behaviour such as meeting strangers.

This measurement scale had seven items, the most of any scale in this study. Questions probed whether users used Facebook to meet new people, or to connect with people who they already knew offline. The Cronbach's Alpha was low at 0.587, showing low scale reliability which provides an opportunity for the measurement scale to be improved in future.

While the overall scale was found to be non-significant, the first item of "I use Facebook to meet new people" received a strong agreement from respondents. The response to this scale was surprising and contrary to the literature of Boyd and Ellison (2009). Various other items tested whether respondents used the platform to maintain existing relationships which also received agreement. This result showed that respondents use Facebook for mixed purposes and it cannot be assumed that new OSNs are exclusively used for managing existing real world friendships. This result suggests that the measurement items need to be revised. Different users will use the same platform for different reasons, and in so doing will expose themselves to different levels of risk and vulnerability. This result was surprising as a fundamental premise of this research was based on users of new OSNs doing so to maintain existing relationships and not meeting new people.

The result could also be explained by the likely confusion in the meaning of "Facebook friends". This term could refer to all friends, or only some friends who could be categorised in terms of "real" friends or pure online acquaintances. The researcher received feedback from respondents indicating that this measurement

scale was ambiguous as respondents would have answered the questions differently based on the interpretation of the term. While this scale was not ideal, it does highlight that users likely do have mental categories of friends and that all friends may not be treated the same.

The outcome of this construct showed that while user intention does not contribute directly to the model, further research is needed to better understand why users use new OSNs and how they classify the users in their circle. Interestingly, Facebook updated their platform immediately after this research was conducted to include a new feature where a user can classify connections into different categories, such as work friends or school friends (Kincaid, 2011). This action further motivates future research into understanding the types of relationships between users within an OSN.

6.2.6. Network Structure

The Network Structure construct aimed to determine the influence of how users share information on Facebook. New style OSNs differ from traditional platforms in how information is shared and structured. Facebook is structured around the user, while older platforms are typically structured around a topic of interest. This online structure mirrors the structure of real world social networks (Wellman, 1988) and would therefore contribute to a more realistic and familiar online interaction. It was therefore anticipated that the structure of the platform would contribute towards trust based on how personal information is shared, and a reduction in the impact of the mediating platform.

While network structure was found to be non-significant there was good support for the last scale item “I use Facebook to connect more with individual people, than to connect with a group of people around a specific topic”. This shows that the network

structure is perceptible to users, despite it being inherent in platform design, and an overt feature as such.

This construct was included in the model because it represented a salient feature of new style OSNs, and not because the literature indicated that an OSN structure would influence online interpersonal trust. The researcher considered that there could have been an influence on the model due to the construct's impact on the user experience within an OSN. It is therefore not surprising or contrary to a theory base that this construct proved to be non-significant. Alternative mechanisms may be at work regarding the influence of network structure and online trust and therefore further research is required to better understand this.

6.2.7. Online Offline Convergence

This construct aimed to measure whether users perceived their online experience on Facebook to be similar to interacting face to face. This was in response to the improved technology used to build web interfaces that would enable users to interact in a less mediated way. This reduction in mediation could have resulted in a more lifelike interaction between users, reduced the impact of the mediating platform, and allowed for social cues to be exchanged. The measurement scale included four items and measured whether users perceived their Facebook user experience to be more engaging than older platforms, and whether Facebook could be used as a substitute for meeting face to face.

Surprisingly, the results showed no support for this. Perhaps this construct was a little premature in the constant evolution in the internet's capabilities. Online offline convergence was aimed at highlighting a higher level of personal engagement and therefore removing the boundaries of the mediating platform. While respondents did

agree that interactions were better than on other online platforms, they disagreed that Facebook could serve as a substitute for interacting in the real world.

Based on this response this construct did not have a significant contribution towards the model. This result was contrary to the literature as the main obstacle in building online interpersonal trust has been cited as the disintermediation of the platform (Grabner-Krautner, 2002; Lee & Turban, 2001). Facebook was chosen in this study as it was expected to represent one of the newer platforms that could have offered an inter-user personal experience. Despite Facebook offering a better online experience, the medium continues to play a significant limiting role.

This result supports the work of Lee and Turban (2001) and Granber-Krauter and Kalushca (2003), who argued strongly for the role of the mediating platform to limit interpersonal interaction. While there appears to be support for Facebook offering a better experience than older platforms, this is not yet good enough to change user perception towards trusting the users on the other side of the interaction. This construct represented one of the core themes in this research. This was that the internet is evolving into a medium capable of supporting new levels of user interaction, to the extent that the internet could possibly be a substitute for face to face interaction. This argument may have been premature. The existing online trust models that argue against the personal capability of the platform still hold therefore.

The result of this construct demonstrates that the mechanics of trust building in the offline space such as social cues do not currently translate directly into the online world, and perhaps the model is too simplistic in that it assumes that elements of a normal real world interaction can be translated online and that the same elements

are relevant both offline and online. Perhaps alternative mechanisms are at work, and a more complex model should be devised in future research.

The non-significant result may be a transient situation as Facebook and other OSNs are continuously evolving. While this research was being prepared, new features were released onto the Facebook platform that would influence user interaction. Examples of this were changes to user profiles and the 'tagging' of users in places/locations and status updates (Kincaid, 2011). Therefore this research should be repeated after a number of platform enhancements have been made to determine whether the functionality has improved the online interaction enough to show true online offline convergence.

6.2.8. Entertainment Factor

It was proposed that users enjoy logging onto the platform and browsing through the user generated content and interacting with other users. One aspect that appears to be driving growth in users of Facebook is the entertainment factor (Sun, 2010). Based on the research by Venkatesh (1999) who linked user enjoyment of technology to trusting behaviour, it was expected that the entertainment factor of Facebook would link to higher levels of online trust.

The measurement scale included three items that probed whether respondents found using the platform entertaining and enjoyable, and whether the element of enjoyment led to a higher level of comfort in using the platform. The data showed that there was support for the individual items and that the measurement scale was reliable with an encouraging Cronbach Alpha of 0.807.

While the overall scale was found to be non-significant, the individual items produced encouraging results in support of this research. All three items achieved means greater than 3.50. This suggests agreement with the statements that users find Facebook more entertaining than other community sites, and enjoyment makes users comfortable to use the platform more. The focus on entertainment is an example of how the internet and online interaction is changing. This has significant design implications for online platform designers, as entertainment clearly impacts a feeling of comfort to use the platform more. There remains an opportunity to link the sense of comfort via entertainment to trust. This presents an opportunity for future research.

Interestingly, this scale achieved the highest Cronbach's Alpha coefficient in the model, demonstrating that the measurement instrument was likely measuring the correct construct, but the results show that this did not translate into having an impact on the model. This construct was not included in previous online trust models, probably because existing models focus on transacting or e-commerce where entertainment is not the aim of the interaction. Entertainment was included in this model because a typical new OSN is not focussed on business but rather social interaction and entertainment.

6.2.9. Summary of the Independent Variables

The SEM analysis demonstrated that a good model fit had been achieved, and that two of the eight constructs contributed significantly to the proposed model. The following table presents a summary of the results of the independent variables on the research proposition.

Table 17 Summary of the discussion of the independent variables

Construct	Contribution	Main Learning	Looking ahead
Personal Profile	**Significant**	Anticipate the end of online anonymity giving personal profile even greater importance	Improve measurement scale to investigate multiple aspects of the personal profile.
User Generated Content	Non-Significant	Despite not being significant in the model, closely linked to the personal profile. Expected to become relevant	Improve measurement scale
Connections	**Significant**	Users respond well to the social aspect of interacting with friends online. Strong interpersonal trust building component.	Trend of web becoming more social. Connections core to a social experience therefore will be increasing relevance
Browse Networks	Non-Significant	Not as relevant as anticipated. Users indicated comfort in transacting with a user in a friends network. Future research needed	May have lost its impact and relevance with experienced OSN users
Intentions of Users	Non-Significant	Contrary to literature. User intention cannot be presumed. Further research needed	Behaviour of users in old OSNs evident in new OSNs. User intention not a significant model contributor
Network Structure	Non-Significant	Does not reduce the impact of the internet as a mediating platform.	Support for some individual items, scale to be revised
Online Offline Convergence	Non-Significant	Online and offline interaction still perceived as very different. Technology not as good as anticipated	Should be retested in near future once OSNs evolve further
Entertainment	Non-Significant	Good support for individual scale items of enjoyment and comfort	Opportunity to link enjoyment -> comfort-> trust

6.2.10. Moderating Variable

Natural Propensity to Trust was the moderating variable in the model. This was based on the research by Chen and Barnes (2007) and Jones and Leonard (2008), who highlighted the role of a person's disposition to trust on their trust perceptions. Propensity to trust acts in parallel with the trust stimuli and together a perception of trust is formed.

This scale was entirely borrowed from existing literature as there was no reason to amend it to the specifics of an online context. The sample displayed a high propensity to trust across all measurement items and the scale achieved a good Cronbach's Alpha of 0.774. While there may be more moderating variables than just one, the Natural Propensity to Trust construct was validated in this research as per Granber-Krauter and Kalushca (2003), Jones and Leonard (2008), Mayer et al. (1995), and McKnight et al. (2002).

This outcome is particularly valuable to the model and the research. This research has argued that interpersonal trust can be developed online in the presence of a well-designed online platform that displays the same type of functionality found in new type OSNs. The focus of this chapter has been on the features of a website that designers should pay attention to if they want users to trust each other on the platform, and therefore the perception may be that online trust is mechanical in the sense that it will form in the presence of a checklist of features. The propensity to trust construct shows that building trust online is not an absolute scientific formula and is at least partly an innate property of a user. While certain elements contribute positively, there is at least one component that cannot be controlled by the web

designer or the platform. The designer has no influence over the personality of the user, therefore online trust can never be guaranteed.

This means that different users on the same platform may respond very differently to other users, but not due of any feature of the platform or action of other users, but rather because of a unique personality trait. Therefore the development of online trust can only be influenced to a certain extent and a significant contribution emanates from the individual's personality traits.

6.3. Summary of Discussion of Results

This chapter presented a discussion of the results of this research. The proposed model achieved a good fit, and provided many valuable insights into which elements of new social web design contribute towards the formation of online interpersonal trust. Three main elements contributed significantly to the model. These were a personal user profile, connections to other users and the user's natural propensity to trust. While six constructs of the model were found to be non-significant, there were valuable insights gained from the results of the individual measurement items which have implications for online practitioners and future research. One example is the significant impact of having an existing offline relationship on online interaction which deserves further investigation.

The non-significance of some of the constructs could be explained by the demographics of the sample, the measurement instrument, and potential researcher error. Particularly notable in the demographics was the fact that 97.5% of respondents indicated over three years of experience on Facebook. This would indicate a sample that was already very familiar online, comfortable in interacting on a new OSN, and trusting of the platform and other users within their network.

Perhaps a repeat of this research with a more diverse sample and an improved measurement instrument would yield better results.

The final model was therefore different to what the researcher expected. The non-significance of some elements of the model showed that there is likely still support for the legacy online trust models that were typically developed over ten years ago. While the internet has changed in terms of its utility, popularity and functionality, it was surprising to find that an attempt at updating the model was only partially successful.

This research proposed that online and offline interactions are converging, yet this was not proven in this research indicating that the medium still plays a limiting role. Perhaps this research was premature but there is support for the argument that the internet is improving in interpersonal communication capability. A salient outcome of this research is that important elements of offline interpersonal trust may not be as important online, and that an online trust model is not simply a translation of offline characteristics to the online realm.

7. CONCLUSION

7.1. Introduction

This research aimed to extend the existing body of knowledge on online trust by bringing two components of existing literature of offline interpersonal trust and online social networks together. The research was motivated by improved web technology and the changing landscape of online social interaction, particularly the significant popularity of new style online social network platforms such as Facebook that has brought aspects of the offline interpersonal relationship online. The academic contributions, managerial implications and research limitations are presented in this concluding chapter.

7.2. Academic Contribution

While this research was only partially successful in proposing a new model for online interpersonal trust, a variety of academic contributions have been made, specifically in the areas of understanding user interactions within the new style online social network platforms.

The main focus of this research was the contribution towards online trust models. The literature review provided a comprehensive account of existing research where the main outcome showed a lack of consideration of the interpersonal trust component. This was the only known research paper that proposed that interpersonal trust can occur online and should form the basis for an online trust model. Previous research rejected the possibility of interpersonal trust online due to the limitations of the medium, and where interpersonal trust was included it was done as an afterthought and not core to the model as was the case in this research.

Three major contributions result directly from testing the proposed model. Online trust, like offline trust, forms as a result of social cues being exchanged between parties. The ability for a user to create an online profile where the user's real name is displayed is one opportunity for a social cue to be exchanged. This contributes significantly to the generation of trust as a real name removes anonymity and therefore risk. An online user profile was not found in existing trust models as an input towards trust and therefore this is a major academic contribution.

The second contribution was that allowing users to connect online to other users contributes towards trust, and represents one example of how the internet has changed to allow an offline social structure to be transplanted online. Connections to other users were also not identified as an input to existing online trust models. Trust was found to not only be dependent on the proposed features, but also moderated by the user's innate propensity to trust. The implication of this is that online trust is not mechanical, and cannot be induced purely by website features. While an online platform can be designed with trust building features, the personality of the user plays a determining role. This validates previous online and offline trust models that included the role of the user's natural propensity to trust.

This research catalogued online social networks in a way that clearly distinguishes properties of new style OSN platforms from the older and simpler versions with limited functionality. The basis for this argument was that the internet has evolved and improved as a communications medium. Eight features that individually would contribute to a better personal experience online were highlighted. These eight features were argued to provide a rich inter-user engagement similar to an offline interaction, and would therefore contribute to an offline type of relationship online.

This was the first known study that catalogued and compared OSN functionality with the focus on interpersonal user experience. With the internet evolving and the trend of the internet becoming social, it is anticipated that the role of social functionality on the web will become increasingly important. It is proposed that the eight properties of online social networks are applicable outside an OSN platform and individual elements could be included in regular (non-OSN) web sites.

This research reinforced existing concepts that OSN platforms are evolving and are changing the way people interact both online and offline. Perhaps the biggest changes are being driven by users having an existing offline relationship. Users are interacting socially online and it is anticipated that this will continue to drive the personal online experience. While the results of the research were promising, and elements of the model were validated, it is anticipated that online trust models will need to be updated in tune with the latest trends in online interaction.

Perhaps the biggest barrier to online commerce and extracting value from users has been, and continues to be, online trust. Therefore the motivation remains to determine a dynamic online trust model that can be applied to the changing nature of the internet. An evolving internet provides the opportunity for existing online trust models to be disrupted and changed. Improved online trust could unlock new uses for the internet not perceived before and therefore the impact of perfecting the online trust model would be significant.

The measurement scales used to measure online trust were adapted from existing scales to suite the online social networking context. These adapted scales did not perform as well as expected and should be improved.

7.3. Managerial Implications

This research contributed towards the existing knowledge on online trust. While current trust models focus on a variety of properties of the online medium, they generally ignore the role of interpersonal trust between users of the platform. In a general sense, users of the platform may refer to individual users, business users or actual brands. This research highlighted that some online platforms have evolved to include social features which facilitate a more personal online interaction. This evolution of web technology and online user experience is changing the way users interact online, and therefore existing models that depend on the legacy online platform design should be challenged and updated.

Previous online trust models focussed on the supporting framework, such as the website brand or design quality of the website. This research focussed on the interaction between users rather than on the platform where the interaction takes place.

While there are many features of an online social platform, two features were significant contributors to online trust. Therefore designers of web platforms should include the ability for users to have a personal profile, and for users to connect to other users. The personal profile should include the user's real name. This would improve the personal experience and remove the anxiety caused by dealing with an anonymous user, increasing the level of trust between users. Gefen (2002) and Nooteboom (2002) demonstrated that trust is one of the foundations for engaging in transactions and winning customers. Including a real name versus a username/pseudonym in an online platform is expected to be simple to implement

and carry no material additional cost. However, adding real names to user accounts could have a fundamental impact on the success of the website.

The second feature allows users to link their user profile to other users, thereby creating a networked community. Users appear to respond to being able to interact and view other users on the platform. This has implications for online businesses that require users to create a login/account. Functionality should be included on the platform to allow users to network via connecting profiles.

These two features, together with aspects of established online trust models such as institutional trust, could create a very compelling platform (Jones & Leonard, 2008). While a limitation of this research was the one-dimensional focus on interpersonal trust as the core of building online trust, a powerful result could be achieved by combining interpersonal trust with process based and institutional trust into a hybrid model as originally suggested by Granber-Krauter and Kalushca (2003) and Tan and Sutherland (2004).

Web designers should consider which aspects of their designs could include social aspects to influence online behaviour. Online users respond both to trust and the lack of it, therefore this research is useful to designers who want to use an online platform to achieve a business aim. Online trust has long been understood to be a barrier to online interactions, which is why any method to improve online trust would be valuable to online businesses. Many web sites require users to share personal information such as credit card details in order to transact. Users who trust the entity they are dealing with are expected to be more likely to share their information and transact.

Social networks have historically focussed on individual users connecting with each other online. There was a limited focus of businesses joining in and establishing their brands online. The opportunity exists for businesses to join the popular OSNs such as Facebook and engage with users through a new medium. This new medium could be considered more personal than email or a call centre interaction, and could be extended to enable close engagement with customers or potential customers.

Typical impersonal commercial interactions such as between a customer and an insurance company or a bank could occur on an OSN where a richer interaction could take place. Computer mediated communication is improving and communication through a social platform is just one example. Companies that previously ignored CMC as a viable option to engage with customers should reconsider a social platform as an option.

Online trust is relevant to a host of business activities such as marketing, electronic word of mouth and consumer behaviour (Peter & Olsen, 2005). While these two subjects have not been the focus of this research, they depend on trust and would benefit from an enhanced model of online trust.

7.4. Limitations of the Research

This research contained a variety of limitations that can be categorised into Research Methodology, Research Instrument, Sample, and Context and Scope.

7.4.1. Research Methodology

The research methodology contained the following limitations:

- The proposed model contained eight constructs that were sourced from existing literature. A wider and more global search could have resulted in either more constructs, or more relevant constructs being included in the model. Perhaps critical constructs were omitted from the model. This limitation could have led to Type III or Type IV errors where the wrong constructs could have been tested.
- The proposed model chose to focus purely on interpersonal trust where previous models included multiple trust types. The intention was to identify specific elements of an online interaction that contributed to online interpersonal trust. On reflection it may have been better to have included more types of trust into a hybrid model.
- Multiple measurement scales used for the independent variables achieved low Cronbach's Alpha reliability scores. These resulted in poor data being fed into the model validation.
- The proposed model included eight independent variables, but then added one layer of abstraction in an effort to simplify the model into four sub-constructs. This did not achieve the aim of reducing complexity and could have been left out of the model.
- The grouping of the constructs into sub-constructs could also have been done more intuitively, where it would have made more sense to group User Intention with Entertainment and Network Structure with Online Offline Convergence.

7.4.2. Design of the Research Instrument

The design of the research instrument contained the following limitations:

- The measurement scales used in the survey were adapted from existing scales where possible. The items not adapted could have been worded more clearly to better capture the essence of the construct under test. This affected the reliability of the data.
- The measurement scales contained between two and seven items where they could have all contained the same amount of measurement items. This would have assisted in generating better Cronbach's Alpha coefficients of data reliability.
- The online survey was found to be lengthy to complete, despite shortening it after receiving feedback from respondents in the pre-test. Respondents may have fatigued during completing the instrument which may have introduced biases into the data.
- Respondents noted outside of the research instrument that the differentiation between Facebook friends and real world offline friends should be clarified. This suggests that there is a clear distinction in the types of connections users share on Facebook which should be considered in a future research instrument.
- Respondents were sourced from within Facebook indicating that the sample was already comfortable interacting online and comfortable using an OSN. This may have biased the responses.
- The personal profile scale should have included more than two measurement items as the scale should have probed more demographic information. There remains an opportunity to probe this construct further and determine the

power of each element of an online profile. A more detailed measurement scale would provide greater resolution into specifically which aspects of an interpersonal profile impact the model over and above using a real name online.

7.4.3. Sample of the Study

The sample in this study limited the research in the following ways:

- Snowball sampling within Facebook would have attracted a degree of response bias due to the limited diversity in the responses. An example of this was the majority white sample that was generated from within the researcher's network. A different sampling technique may have produced a more diverse sample with greater variance and therefore different results.
- The sample consisted of users who already were comfortable enough with Facebook to have an active account. It would have been interesting to consider users who have not yet made the decision to open a Facebook/OSN account. Perhaps exploratory research could be conducted on a sample of people not on Facebook to understand what role trust or the lack thereof influenced their decision not to join an OSN.
- The sample contained users who were well experienced in OSN use. It would have been valuable to have sourced responses from new OSN users to increase variance in the sample.
- The sample was limited to South African users which limits the general applicability of the results.

7.4.4. Context and Scope of the Study

The context and scope of this study limited the research in the following ways:

- On reflection the context of the study was not well clarified in the research instrument which could have negatively affected the results. Trust is typically relevant to a context when an action is being considered such as intent to purchase. Therefore the context of where trust is being measured is fundamental. This should be articulated clearly in the briefing to the research instrument.
- Online trust has significance beyond the scope of online social networks and extends to online shopping, online marketing and virtual team collaboration. The scope of this study was narrow and in order to achieve widespread applicability of the outcomes, the scope should be widened to investigate online trust within other platforms.

7.5. Recommendations for Future Research

The following recommendations are made for future research:

- Many elements in the proposed model were thought to be influenced heavily by the fact that users on new OSNs have an existing offline relationship prior to interacting online. It is recommended that this concept be studied closer to understand its impact on online interaction.
- The feedback from survey respondents seemed to indicate multiple types of OSN friends. There was a distinction between ‘real’ online friends and online acquaintances. The acquaintances did not appear to be held in the same esteem. A future study should consider the various distinct types of OSN

friends / connections and the level of trust given to each of them, as treating all online friends the same seems to be an over simplification of the research problem.

- This research focused on building trust in an online social network. Future research should consider what elements in a social network detract from online trust. The eight inputs to the model in this research were anticipated to contribute towards building trust, but it would be equally useful to understand what elements in a new style online platform hinder trust building.
- The research instrument controlled for cultural differences by limiting the sample to South African Facebook users. One of the powers of the internet is the freedom of geography, where users anywhere in the world can interact. It is therefore very limiting to design an online platform specific to just one geographic region or cultural style. In order to improve the utility of this research, a future study should consider a wider sample to include multiple cultures and greater diversity.
- A future study should investigate the impact of the model elements on online trust in other social networks such as LinkedIn.
- Facebook was used as a proxy for a new online social network. Various popular platforms share much in common, however they do have differentiating features, such as LinkedIn which focuses on professional relationships rather than general social relationships. It would be valuable to research OSN platforms to determine whether each network is significantly different.
- Exploratory research could be undertaken to determine if there are any new constructs that should be included in the online trust model. Since the

proposed model was built from existing interpersonal and online trust models, as well as existing research on online social networks, and considering that the web platforms evolve continuously, new features could be relevant that have been completely ignored.

- A comparison between online trust within an online social network and a non-social legacy designed website would be worth making. This comparison would highlight the impact of the social aspects on online trust and would serve as a method of verifying the proposed trust model.
- The measurement scales used in this research should be updated with the results of this research. For example this research demonstrated that new OSNs are used for meeting new people, not just for managing existing offline relationships as initially anticipated. The measurement scale therefore needs to be updated to reflect this.
- This research was cross sectional, but the development of trust occurs over a period of time. Users' perceptions change with experience on Facebook and therefore future research should consider a longitudinal study. Perhaps the eight inputs to the model would have varying degrees of influence over a time period as the user gains familiarity with each feature.
- The data was processed using structural equation modelling where the significance of variables was determined by manually processing the AMOS output. A Bayesian approach could have been employed to simulate various scenarios and iterate thousands of times in an effort to optimise the model. A Bayesian approach could also have been used to validate the manual data analysis. This may have resulted in slightly different results.

7.6. Summary

This paper proposed a new model for online trust that focused on the interpersonal aspect of online interaction in a new online social network. Facebook served as the proxy for new style online social networks, and the properties that categorised a platform as new were presented. The proposition was based on improved web technology and features within Facebook that support the sharing of social cues and personal information that were anticipated to influence trust building as they would in the real world. Eight features of social network platforms were included in the model, with the expectation that they would influence interpersonal trust.

While only two of the eight inputs to the model were found to be significant, the proposed model was shown to have good fit to the data and therefore this research was successful. Allowing users to share their real name in a user profile and connect to other online users were the salient outcomes of this trust model. The influence of a user's innate propensity to trust was also validated as a moderating variable demonstrating that online trust cannot be generated mechanically.

This research also achieved the objective of identifying the properties of online social networks that can be used to characterise websites as new or traditional. This highlighted that the internet has changed as a communications medium and is useful to web practitioners who would want a set of powerful social features to include in their designs. This research has relevance to existing and new online businesses that are looking to interact online with their target market. This includes marketing, communication and e-commerce. With the trend of the internet becoming more social, web platforms should selectively include social functionality in order to engage on a deeper level with their customers and develop trust online.

8. REFERENCES

Achrol, R., & Kotler, P. (1999). Marketing in the network economy. *Journal of Marketing, 63*(Special Issue 1999), 146-163.

Bailey, B., Gurak, L., & Konstan, J. (2001). An examination of trust production in computer-mediated exchange. *Proceedings of the 7th Conference on Human Factors and the Web* (pp. 1-7). Wisconsin, USA: Human-Computer Interaction Resource Network.

Barker, V. (2009). Older adolescents' motivation for social network site use: the influence of gender, group identity, and collective self-esteem. *Cyber Psychology and Behaviour, 12*(2), 209-213.

Barsky, E., & Purdon, M. (2006). Introducing web 2.0: social networking and social bookmarking for health librarians. *Journal of the Canadian Health Libraries Association, 27*(3), 65-67.

Bart, Y., Shankar, V., Sultan, F., & Urban, G. (2005). Are the drivers and role of online trust the same for all web sites and consumers? A large scale exploratory empirical study. *Journal of Marketing, 69*(4), 133-152.

Bentler, P. (1990). Comparitive fit indexes in structural models. *Psychological Bulletin, 107*(2), 238-246.

Bhattacherjee, A. (2002). Individual trust in online firms: scale development of initial trust. *Journal of Management Information Systems, 19*(1), 211-241.

Blumberg, B., Copper, D., & Schindler, P. (2008). *Business Reseach Methods.* Berkshire: McGraw-Hill Education.

Boomsma, A. (2000). Reporting analyses of covariance structures. *Structural Equation Modelling, 7*(3), 461-483.

Boyd, D. (2008). Why youth (heart) social network sites: The role of networked publics in teenage social life. In D. Buckingham, *Youth, Identity, and Digital Media* (pp. 119-142). Cambridge MA: MIT Press.

Boyd, D., & Ellison, N. (2009). Social network sites: definition, history and scholarship. *Journal of Computer-Mediated Communication, 13*(1).

Brace, I. (2008). *Questionnaire design: how to plan, structure and write survey (Market Research in Practice).* (2. Edition, Ed.) London: Kogan Page.

Brown, J., & Reingen, P. (1987). Social ties and word of mouth referral behaviour. *Journal of Consumer Research, 14*(3), 350-362.

Butler, J. K. (1991). Toward understanding and measuring conditions of trust: evolution of conditions of trust inventory. *Journal of Management, 17*(3), 643-663.

Byrne, B. M. (2010). *Structural Equation Modelling with AMOS.* New York: Routledge.

Carr-Harris, D. (2011, September 1). *Google Plus Wants To Get Rid Of Anonymity*. Retrieved September 21, 2011, from PSFK: http://www.psfk.com/2011/09/google-plus-wants-to-get-rid-of-anonymity.html

Caverlee, J., Lui, L., & Webb, S. (2008). Towards robust trust establishment in web based social networks in SocialTrust. *Proceedings of the 8th ACM/IEEE-CS joint conference on Digital libraries* (pp. 1163-1164). Beijing, China: IEEE.

Chaney, P. (2010, September 07). *Social Media Improves Online Trust: 4 Tips.* Retrieved April 15, 2011, from Practical ECommerce: http://www.practicalecommerce.com/articles/2224-Social-Media-Improves-Online-Trust-4-Tips

Chen, S. C. (2003). Interpreting dimensions of consumer trust in e-commerce. *Information Technology and Management, 4*(2-3), 303-318.

Chen, W., & Fong, S. (2010). Social network collaborative filtering framework and online trust factors: a case study on Facebook. *Fifth International Conference on Digital Information Management (ICDIM)* (pp. 266 - 273). Thunder Bay, Ontario: IEEE.

Chen, Y., & Barnes, S. (2007). Initial trust and online buyer behaviour. *Industrial Management and Data Systems, 107*(1), 21-36.

Cheskin Research. (2000). *Trust in the Wired Americas.* Retrieved July 20, 2011, from Cheskin Research: www.cheskin.com/assets/report-CheskinTrustIIrpt2000.pdf

Chi, L., Chan, W., Seow, G., & Tam, K. (2009). Transplanting social capital to the online world: insights from two experimental studies. *Journal of Organisational Computing and Electronic Commerce, 19*(1), 214-236.

Coppola, N., Hiltz, S., & Rotter, N. (2004). Building trust in virtual teams. *IEEE Transactions on Professional Communication, 47*(2), 95-104.

Corritore, C. L., Kracher, B., & Wiedenbeck, S. (2003). Online trust: concepts, evolving themes, a model. *International Journal of Human Computer Studies, 58*(6), 737-758.

Couch, L., & Jones, W. (1997). Measuring levels of trust. *Journal of Research in Personality, 31*(3), 319-336.

Cyr, D. (2008). Modelling web site design across cultures: relationships to trust, satisfaction, and e-loyalty. *Journal of Management Information Systems, 24*(4), 47-72.

Dennis, A., Pootheri, S., & Natarajan, V. (1998). Lessons from the early adopters of web groupware. *Journal of Management Information Systems, 14*(4), 65-86.

Doney, P., & Cannon, J. (1997). An examination of the nature of trust in buyer-seller relationships. *Journal of Marketing, 61*(2), 35-51.

Dwyer, C., Hiltz, S., & Passerini, K. (2007). Trust and privacy concern within social networking sites: a comparison of Facebook and Myspace. *Americas Conference on Information Systems.* Keystone, Colorado: http://0-csis.pace.edu.innopac.up.ac.za/~dwyer/research/DwyerAMCIS2007.pdf.

Dwyer, F., Schurr, P., & Oh, S. (1987). Developing buyer-seller relationships. *Journal of Marketing, 51*(2), 35-51.

Edelman. (2011). *Edelman.* Retrieved June 20, 2011, from The Edelman Trust Barometer: http://www.edelman.com/trust/2011/uploads/Edelman%20Trust%20Barometer%20Global%20Deck.pdf

Ellison, N., Steinfeld, C., & Lampe, C. (2007). The benefits of Facebook friends: exploring the relationship between college students' use of online social networks and social capital. *Journal of Computer Mediated Communication, 12*(3), 1143-1168.

Ellison, N., Steinfield, C., & Lampe, C. (2006). Spatially bounded online social networks and social capital: the role of Facebook. *Annual Conference of the International Communication Association.* Dresden Germany.

Ermisch, J., Gambetta, D., Laurie, H., Siedler, T., & Urig, S. (2009). Measuring people's trust. *Journal of the Royal Statistical Society, 172*(4), 749-799.

Facebook. (2011). *Facebook Statistics*. Retrieved June 29, 2011, from Facebook.com: http://www.facebook.com/press/info.php?statistics

Feng, J., Lazar, J., & Preece, J. (2004). Empathy and online interpersonal trust: A fragile relationship. *Behaviour and Information Technology, 23*(2), 1-30.

Fogel, J., & Nehmad, E. (2009). Internet social network communities: risk taking, trust, and privacy concerns. *Computers in Human Behavior, 25*(1), 153-160.

Friedman, B., Kahn Jr, P., & Howe, D. (2000). Trust online. *Communications of the ACM, 43*(12), 34-40.

Furia, G. (1996). *Interpersonal trust surveys.* San Francisco CA: Jossey-Bass Pfeiffer.

Ganesan, S., & Hess, R. (1997). Dimensions and levels of trust: implications for commitment to a relationship. *Marketing Letters, 8*(4), 439-448.

Garver, M., & Mentzer, J. (1999). Logistics research methods: employing structural equation modelling to test for construct validity. *Journal of Business Logistics, 20*(1), 33-57.

Gefen, D. (2000). E-commerce: the role of familiarity and trust. *The International Journal of Management Science, 28*(6), 725-737.

Gefen, D. (2002). Reflections of the dimensions of trust and trustworthiness among online consumers. *Advances in Information Systems, 33*(3), 38-53.

Gefen, D. (2004). What makes and ERP implementation relationship worthwhile: Linking trust mechanisms and ERP usefulness. *Journal of Management Information Systems, 21*(1), 263-288.

Gefen, D., Benbasat, I., & Pavlou, P. (2008). A research agenda for trust in online environments. *Journal of Management Information Systems, 24*(4), 275-286.

Gefen, D., Karahanna, E., & Straub, D. (2003). Trust and TAM in online shopping: an integrative model. *MIS Quarterly, 27*(1), 51-90.

Gefen, D., Straud, D., & Boudreau. (2000). Structural equation modelling and regression: Guidelines for research practice. *Communications for the Association of Information Systems, 4*(7), 2-79.

Gliem, J., & Gliem, R. (2003). Calculating, interpreting, and reporting Cronbach's Alpha reliability coefficient for Likert-type scales. *Midwest Research to Practice Conference in Adult, Continuing, and Community Education* (pp. 82-88). Columbus Ohio: The Ohio State University.

Goldenberg, J., Han, S., Lehmann, D., & Hong, J. (2009). The Role of Hubs in the Adoption Process. *Journal of Marketing, 73*(2), 1-13.

Grabner-Krautner, S. (2002). The role of consumers trust in online shopping. *Journal of Business Ethics, 39*(1-2), 43-50.

Granber-Krauter, S., & Kalushca, E. (2003). Empirical research in online trust : a review and critical assessment. *International Journal of Human Computer Studies, 58*(6), 783-812.

Hair, J., Black, B., Babin, B., Anderson, R., & Tatham, R. (2005). *Multivariate data analysis.* Upper Saddle River: Prentice Hall.

Hall, V. (2009). *The truth about trust in business* (First Edition ed.). Austin Texax: Emerald Book Company.

Haythornthwaite, C. (2005). Social networks and internet connectivity effects. *Information Communication and Society, 8*(2), 125-147.

Hoe, S. L. (2008). Issues and procedures in adopting structural equation modelling technique. *Journal of Applied Quantitative Methods, 3*(1), 76-83.

Hoelter, D. (1983). The analysis of covariance structures: Goodness of fit indices. *Sociological Methods and Research, 11*(3), 325-344.

Hoffman, D., & Novak, T. (1996). Marketing in hypermedia computer mediated environments: conceptual foundations. *Journal of Marketing, 60*(3), 50-68.

Hoffman, D., Novak, T., & Peralta, M. (1999). Building consumer trust online. *Communications of the ACM, 42*(4), 80-85.

Hofstede, G. (1980). Motivation, leadership and organization: Do American theories apply abroad? *Organisational Dynamics, 9*(1), 42-63.

Jarvenpaa, S., Tractinsky, N., & Vitale, M. (2000). Consumer trust in an internet store. *Information Technology and Management, 5*(2), 45-71.

Johnston, L., & Sabin, K. (2010). Sampling hard to reach populations with respondent driven sampling. *Methodical Innovations Online, 5*(2), 38-48.

Joinson, A., Reips, U., & Buchanan, T. (2010). Privacy, trust and disclosure online. *Human Computer Interaction, 25*(1), 1-24.

Jones, K., & Leonard, L. (2008). Trust in consumer-to-consumer electronic commerce. *Information and Management, 45*(2), 88-95.

Jones, S., Wilikens, M., Morris, P., & Masera, M. (2000). Trust requirements in e-business. *Communications of the ACM, 43*(12), 81-87.

Kim, J. W., Choi, J., Qualls, W., & Han, K. (2008). It takes a marketplace community to raise brand commitment: the role of online communities. *Journal of Marketing Management, 24*(3-4), 409-431.

Kincaid, J. (2011, Septemnber 22). *Techcrunch.com.* Retrieved September 26, 2011, from Facebook Founding President Sean Parker: Smart Lists Represent A Change In Philosophy: http://techcrunch.com/2011/09/22/facebook-founding-president-sean-parker-smart-lists-represent-a-change-in-philosophy/

Kirkpatrick, M. (2010, January 9). *Facebook's Zuckerberg Says The Age of Privacy is Over.* Retrieved March 20, 2011, from Read Write Web:

http://www.readwriteweb.com/archives/facebooks_zuckerberg_says_the_age_of_privacy_is_ov.php

Knights, D., Noble, F., Vurdubakis, T., & Willmott, H. (2001). Chasing shadows: control, virtuality and the production of trust. *Organization Studies, 22*(2), 311-336.

Krasnova, H., Kolesnikova, E., & Gunther, O. (2010). Leveraging trust and privacy concerns in online social networks: an empirical study. *18th European Conference on Information Systems* (pp. 1-12). ECIS 2010 Proceedings.

Kuriyan, R., Kitner, K., & Watkins, J. (2010). ICTs, development and trust: and overview. *Information Technology and People, 23*(3), 216-221.

Larzelere, R., & Huston, T. (1980). The dyadic trust scale: toward understanding interpersonal trust in close relationships. *Journal of Marriage and the Family, 42*(3), 595-604.

Lazar, F., & Preece, J. (2004). Empathy and online interpersonal trust: A fragile relationship. *Behaviour and Information Technology, 23*(2), 97-106.

Lee, K., Kang, I., & McKnight, D. (2007). Transfer from offline trust to key online perceptions: An empirical study. *IEEE Transactions on Engineering Management, 54*(4), 729-741.

Lee, M., & Turban, E. (2001). A trust model for consumer internet shopping. *International Journal of Electronic Commerce, 6*(1), 75-91.

Li, X., Hess, T., & Valacich, J. (2008). Why do we trust new technology? A study of initial trust formation with organisational information systems". *Strategic Information Systems, 17*(1), 39-71.

Matzat, U. (2010). Reducing problems of sociability in online communities: Integrating online communication with offline interaction. *American Behavioural Scientist, 53*(8), 1170-1193.

Mayer, R., Davis, J., & Schoorman, F. (1995). An integrative model of organisational trust. *Academy of Management Review, 20*(3), 709-734.

McAllister, D. (1995). Affect- and cognition based trust as foundations for interpersonal cooperation in organisations. *The Academy of Management Journal, 38*(1), 24-59.

McKnight, D., & Chervany, N. (1996). *The meanings of trust.* Minneapolis: University of Minnesota.

McKnight, D., & Chervany, N. (2001). What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology. *International Journal of Electronic Commerce*, 35-59.

McKnight, D., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. *Information Systems Research, 13*(3), 334-359.

McKnight, D., Cummings, L., & Chervany, N. (1998). Initial Trust Formation in new organisational relationships. *Academy of Management Review*, 473-490.

McQuitty, S. (2004). Statistical power and structural equation models in business research. *Journal of Business Research, 57*(2), 175-183.

Millard, D., & Ross, M. (2006). Web 2.0: Hypertext by any other name? *Proceedings of the seventeenth conference on hypertext and hypermedia* (pp. 27-30). New York, NY, USA: ACM.

Morgan, R., & Hunt, S. (2004). The commitment-trust theory of relationship marketing. *Journal of Marketing, 58*(3), 20-38.

Mouzas, S., Hennenberg, S., & Naude, P. (2007). Trust and reliance in business relationships. *European Journal of Marketing, 41*(9-10), 1016-1032.

Murugesan, S. (2007, July August 2007). Understanding web 2.0. *IEEE IT Pro*, pp. 34-41.

Nooteboom, B. (2002). *Trust.* Northhampton: Edward Elgar Publishing, Inc.

Nooteboom, B., & Six, F. (2003). *The trust process in organisations.* Northhamptonm MA: Edward Elgar Publishing Inc.

Olsen, J., & Olsen, G. (2000). i2i Trust in e-Commerce. *Communications of the ACM, 43*(12), 41-44.

Pallant, J. (2010). *SPSS Survival Manual* (4th Edition ed.). Australia: McGraw-Hill Education.

Paul, D., & McDaniel, R. (2004). A field study of the effect of interpersonal trust on virtual collaborative relationship performance. *MIS Quarterly, 28*(2), 183-227.

Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce, 7*(3), 101-134.

Pavlou, P. A., & Ba, S. (2002). Evidence of the effect of trust building technology in electronic markets: Price premiums and buyer behaviour. *MIS Quarterly, 26*(3), 243-268.

Pavlou, P. A., & Gefen, D. (2004). Building effective online marketplaces with institution-based trust. *Information Systems Research, 15*(1), 37-59.

Peter, J., & Olsen, J. (2005). *Consumer behaviour and marketing strategy.* New York: McGraw Hill / Irwin.

Planck, R., Reid, D., & Pullins, E. (1999). Perceived trust in business to business sales: A new measure. *Journal of Personal Selling & Sales Management, 19*(3), 61-71.

Pollet, T., Roberts, S., & Dunbar, R. (2011). Use of social network sites and instant messaging does not lead to increased offline social network size, or to emotionally closer relationships with offline network members. *Cyberpsychology Behaviour and Social Networking, 14*(4), 253-258.

Rempel, J. K., Holmes, J., & Zanna, M. (1985). Trust in close relationships? *Journal of Personality and Social Psychology, 49*(1), 95-112.

Reporter, S. (2011, July 28). *'It has to go away': Facebook director calls for an end to internet anonymity.* Retrieved August 10, 2011, from The Daily Mail: http://www.dailymail.co.uk/news/article-2019544/Facebook-director-Randi-Zuckerberg-calls-end-internet-anonymity.html

Ridings, C., & Gefen, D. (2004). Virtual community attraction: Why people hang out online. *Journal of Computer Mediated Communication, 10*(1), 00. doi:10.1111/j.1083-6101.2004.tb00229.x.

Riedl, R., Hubert, M., & Kenning, P. (2010). Are there neural gender differences in online trust? An FMRI study on perceived trustworthiness of eBay offers. *MIS Quarterly, 34*(2), 397-428.

Rosseau, D., Sitkin, S., Burt, R., & Camerer, C. (1998). Not so different after all:A cross discipline view of trust. *Academy of Management Review, 23*(3), 393-404.

Rotter, J. (1967). A new scale for measurement of interpersonal trust. *Journal of Personality, 35*(4), 661-665. doi: 10.1111/j.1467-6494.1967.tb01454.x.

Rotter, J. B. (1971). Generalised expectancies for interpersonal trust. *American Psychologist, 26*(5), 443-450.

Ryan, S. (2004). Initial trust formation in an online social action network. *Sixth International Conference of the International Society for Third Sector Research.* Toronto, Canada.

SAARF. (2011). *South African Advertising Research Foundation.* Retrieved June 20, 2011, from Internet Trends: www.saarf.co.za

Salo, J., & Karjaluoto, H. (2007). A conceptual model of trust in the online environment. *Online Information Review, 31*(5), 604-621. doi: 10.1108/14684520710832324.

Seppanen, R., Blomqvist, K., & Sundqvist, S. (2007). Measuring inter-organisational trust - a critical review of the empirical research in 1990-2003. *International Marketing Management, 36*(2), 249-265. doi:10.1016/j.indmarman.2005.09.003.

Shankar, V., Urban, G., & Sultan, F. (2002). Online trust: a stakeholder perspective, concepts, implications, and future directions. *Journal of Strategic Information Systems, 11*(3-4), 325-344. doi:10.1016/S0963-8687(02)00022-7.

Shapiro, C., & Varian, H. (1998). *Information rules: A strategic guide to the network economy.* Cambridge: Harvard Business Press.

Sharpe, M. E. (1998). Factors influencing the adoption of the internet. *International Journal of Electronic Commerce, 2*(3), 5-18.

Silverthorne, S. (2009, September 14). Understanding users of online social network platforms. *Harard Business Review*.

Slyke, C., Belanger, F., & Comunale, C. L. (2004). Factors influencing the adoption of web-based shopping: The impact of trust. *Communications of the ACM SIGMIS, 35*(2), 32-49. doi:10.1145/1007965.1007969.

Solorzano, R. (2011). *Fortune 3.* Retrieved May 17, 2011, from Forecast of eCommerce Sales in 2011 and Beyond: http://www.fortune3.com/blog/2011/01/ecommerce-sales-2011/

Son, J., Tu, L., & Benbasat, I. (2006). A descriptive content analysis of trust building measures in B2B electronic marketplaces. *Communications of the Association for Information Systems, 18*(6), 99-128.

Sun, H. (2010). Sellers trust and continued use of online marketplaces. *Journal of the Association for Information Systems, 11*(4), 182-211.

Sutanonpaiboon, J., & Abuhamdieh, A. (2008). Factors influencing trust in online consumer to consumer (C2C) transactions. *Journal of Internet Commerce, 7*(2), 203-219.

Tan, F., & Sutherland, P. (2004). Online consumer trust: A multidimensional model. *Journal of Electronic Commerce in Organisations, 2*(3), 40-58. doi:10.4018/jeco.2004070103.

Tan, Y., & Thoen, W. (2000). Toward a generic model of trust for electronic commerce. *International Journal of Electronic Commerce, 5*(2), 61-74.

Trusov, M., Bodapati, A., & Bucklin, R. (2010). Determining influential users in internet social networks. *Journal of Marketing Research, 47*(4), 643-658.

Trusov, M., Bucklin, R., & Pauwels, K. (2009). Effetcs of word of mouth versus traditional marketing: Findings from an internet social networking site. *Journal of Marketing, 73*(1), 1-24.

Van den Bulte, C., & Wuyts, S. (2007). *Social networks and marketing.* Cambridge MA: Marketing Science Institute.

Venkatesh, V. (1999). Creation of favourable user perceptions: exploring the role of intrinsic motivation. *MIS Quarterly, 23*(2), 239-260.

Vishwanath, A. (2004). Manifestations of interpersonal trust online: a cross cultural study comparing the differential utilization of seller ratings by eBay

participants in Canada, France and Germany. *New Media and Society, 6*(2), 219-234. doi: 10.1177/1461444804041441.

Vision Critical. (2010, September). *Online Social Networks: Trust Not Included.* Retrieved March 2011, from Vision Critical: http://www.visioncritical.com/wp-content/uploads/2010/09/VC_SocialMedia_Sept2010.pdf

Wang, W., & Benbasat, I. (2005). Trust in and adoption of online recommendation agents. *Journal of the Association for Information Systems, 6*(3), 72-101.

Wang, Y., & Emurian, H. (2005). An overview of online trust: concepts, elements and implications. *Computers in Human Behaviour, 21*(1), 105-125.

Warrington, T., Abgrad, N., & Caldwell, H. (2000). Building trust to develop competitive advantage in e-business relationships. *Competitiveness Review, 10*(2), 160-168.

Wellman, B. (1988). Structural analysis: From method and metaphor to theory and substance. In B. Wellman, & S. Berkowitz, *Social Structures: A Network Approach* (pp. 19-61). Cambridge UK: Cambridge University Press.

Wellman, B., Salaff, J., Dimitrova, D., Garton, L., Gulia, M., & Haythornwaite, C. (1996). Computer networks as social networks: Collaborative work, telework, and virtual community. *Annual Review of Sociology, 22*, 213-238.

Wilson, D. (1995). An integrated model of buyer-seller relationships. *Journal of the Academy of Marketing Science, 23*(4), 335-345.

Yoon, S. (2002). The antecedents and consequences of trust in online-purchase decisions. *Journal of Interactive Marketing, 16*(2), 47-63. doi:10.1002/dir.10008.

Zaheer, A., McEvily, B., & Perrone, V. (1998). Does trust matter? Exploring the effects of interorganisational and interpersonal trust on performance. *Organisation Science, 9*(2), 141-159.

Zand, D. (1972). Trust and managerial problem solving. *Administrative Science Quarterly, 17*(2), 229-239.

Zeng, F., Huang, L., & Dou, W. (2009). Social factors in user perceptions and responses to advertising in online social network communities. *Journal of Interactive Advertising, 10*(1), 1-13.

Zikmund, W. (2003). *Business Research Methods* (7th ed.). Ohio, USA: South-Western Cengage Learning.

Zucker, L. (1986). Production of trust: Institutional sources of economic structure 1840-1920. In B. Straw, & L. Cummings, *Research in Organisational Behaviour* (pp. 53-111). Greenwich CT: JAI Press.

Appendix A – Blank Questionnaire

I am conducting research on whether its possible to interact online with other users on Facebook in a similar way to a face to face interaction.

You are asked to complete an electronic survey which should take no more than 15 minutes of your time.

Your participation is voluntary and you can withdraw at any time without penalty. All data will be kept confidential. By completing the survey, you indicate that you voluntarily participate in this research. If you have any concerns, please contact me or my supervisor. Our details are provided below.

You need to have an active Facebook account and live in South Africa to participate in this research.

Researcher : Jonathan Berger
Email : jonathan@berger.co.za
Phone : 082 574 5064

Research Supervisor : Kerry Chipp
Email : chippk@gibs.co.za
Phone : 011 771 4000

NAVIGATION
In order to progress through this survey, please use the following navigation links:
- Click the Next >> button to continue to the next page.
- Click the Previous >> button to return to the previous page.
- Click the Exit the Survey Early >> button if you need to exit the survey.
- Click the Submit >> button to submit your survey.

INSTRUCTIONS

The following survey asks questions regarding your experience on Facebook.

In this survey a Facebook friend is someone who you have "friended" on the Facebook platform.

A transaction refers to buying or selling a product from a Facebook friend such as a used car.

You are asked to read each statement and then rate your answer on a 5 point Likert Scale of Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree.

1. How often do you use online social network platforms?

- ☐ Multiple times a day
- ☐ Once a day
- ☐ Once a week
- ☐ Once a month
- ☐ Less than once a month

2. Which country are you based in?

- ☐ South Africa
- ☐ Other

3. Do you have an active Facebook account?

- ☐ Yes
- ☐ No

4. Please indicate your agreement or disagreement with the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I feel safe in sharing identifying personal information on my Facebook profile	☐	☐	☐	☐	☐
Viewing a friends Facebook profile (such as a their real name and photograph) gives me the confidence that I am connected to the right person	☐	☐	☐	☐	☐

5. Please indicate your agreement or disagreement with the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I feel comfortable seeing others sharing personal information on their status updates					
I believe that the profile information that my friends post is accurate and true					
I share more identifying personal information on Facebook than on other online platforms					

6. Please indicate your agreement or disagreement with the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I like the fact that I can connect with friends					
My Facebook connections are considered real world friends					
Connecting with friends on Facebook assists me in maintaining a real world relationship with that contact					
My Facebook friends would keep their commitments made to me					
I would describe my Facebook friends as honest					

7. Please indicate your agreement or disagreement with the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Before connecting with another Facebook user I browse their friends list					
I enjoy browsing my friends network of connections					
I am more inclined to transact with someone who is part of a friends network					

8. The following statements refer to the reasons you use Facebook

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I use Facebook to meet new people					
I only use Facebook to connect with people I have an existing offline relationship with					
My network of offline friends has not increased in size from using Facebook					
I have used Facebook to check out someone I met in person					
I have used Facebook to learn more about other people in my workplace					
I use Facebook to keep in touch with my old offline friends					
All of my Facebook friends are people I first met offline					

9. The following statements refer to the content that is shared on Facebook

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I feel free to post content on any topic I feel is relevant at the time					
I am interested in the content that my friends post on Facebook					
Viewing a friend's status updates, photos and other personal information helps me maintain a relationship with that person					
I use Facebook to connect more with individual people, than to connect with a group of people around a specific topic					

10. Regarding your experience when using Facebook

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I use Facebook as a substitute for engaging with friends in person					
My experience on Facebook is more engaging than on older online platforms					
Interacting on Facebook can be a substitute to meeting in person					
It is possible to maintain a real world relationship by interacting with that friend on Facebook					

11. Please indicate your agreement or disagreement with the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I find using Facebook entertaining and enjoyable					
Facebook is more fun and entertaining than other online community websites					
Having fun on Facebook makes me comfortable to use it more					

12. Please indicate your agreement or disagreement with the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
In general people do care about the wellbeing of others					
In general most people keep their promises					
Most people are honest in their dealings with others					
Most people are concerned about other peoples problems					
Most people care enough to be helpful rather than just looking out for themselves					
I generally give people the benefit of the doubt when I first meet them					
I usually trust people until I am given a reason not to trust them					

13. The following statements refer to your perception of your Facebook friends

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I consider Facebook friends real friends					
Friends on Facebook treat me the same online as they do offline					
It is possible to complete a business transaction with any Facebook friend					
I would feel confident in transacting online with a Facebook friend					
I believe a Facebook friend is capable of delivering on his promises					

14. The following statements refer to your perception of your Facebook friends

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My Facebook friends have made sacrifices for me in the past					
All of my Facebook friends care for me					
In times of need, my Facebook friends have made an effort to assist me					
I believe all of my Facebook friends would act in my best interest					
All of my Facebook friends are interested in my wellbeing, not just their own					

15. The following statements refer to your perception of your Facebook friends

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
All of my Facebook friends would keep their promises					
All of my Facebook friends are honest in their dealings with me					
I believe that the content that I post on Facebook will be treated with respect by other users					
All of my Facebook friends would not take advantage of me in a transaction					
Should I transact with a Facebook friend I believe they will be honest					

16. The following statements refer to your perception of your Facebook friends

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I believe that I can trust my all of my Facebook friends					
Facebook friends share/post only information that is correct and true					
My level of trust with another online user is higher when that person is connected to my social network.					
I would feel more comfortable in transacting online with a connection in my online social network, than users outside of my network					
Transacting online with one of my Facebook friends has lower risk					
I expect my Facebook friends to deliver on their commitments in an online transaction					
I feel less vulnerable when dealing online with someone in my online social network					
I would feel a sense of betrayal if a Facebook friend acted against my interests					
All of my Facebook friends are trustworthy					

17. Are you male or female?

- Male
- Female

18. Which category below includes your age?

- 17 or younger
- 18-20
- 21-29
- 30-39
- 40-49
- 50-59
- 60 or older

19. Which racial group are you part of?

- White
- Black
- Indian
- Coloured
- Asian

Other (please specify)

20. What is the highest level of school you have completed or the highest degree you have received?

- Less than high school degree
- High school
- Bachelor degree
- Honours
- Masters
- Doctorate

21. What is your employment status?

- Full time
- Part time
- Self Employed
- Student
- Retired
- Unemployed

22. How many years have you used the internet for?

- 0 years
- < 1 year
- 1-3 years
- > 3 years

23. Would you consider yourself a basic, intermediate or advanced web user ?

- Basic
- Intermediate
- Advanced

24. Have you transacted online in the last 6 months as a buyer or a seller (online banking, classifieds, auctions, online store etc.)

- Yes
- No

25. Which online social networks do you currently have an active account on ?

- Facebook
- Twitter
- LinkedIn
- MySpace
- Other
- None of the above

26. How many years have you used any of the following types of online social network platforms like Facebook, LinkedIn, MySpace, forums, user groups, mailing lists?

- 0 years
- < 1 year
- 1-3 years
- > 3 years

27. How many friends do you have on Facebook

- Less than 50
- Between 51 and 200
- More than 200

28. Do you use online social networks for personal use, business use or both?

- Personal use
- Business use
- Both

Appendix B –Descriptive Statistics for Qualifying & Demographic Questions

Table 18 Descriptive statistics for Qualifying and Demographic Questions

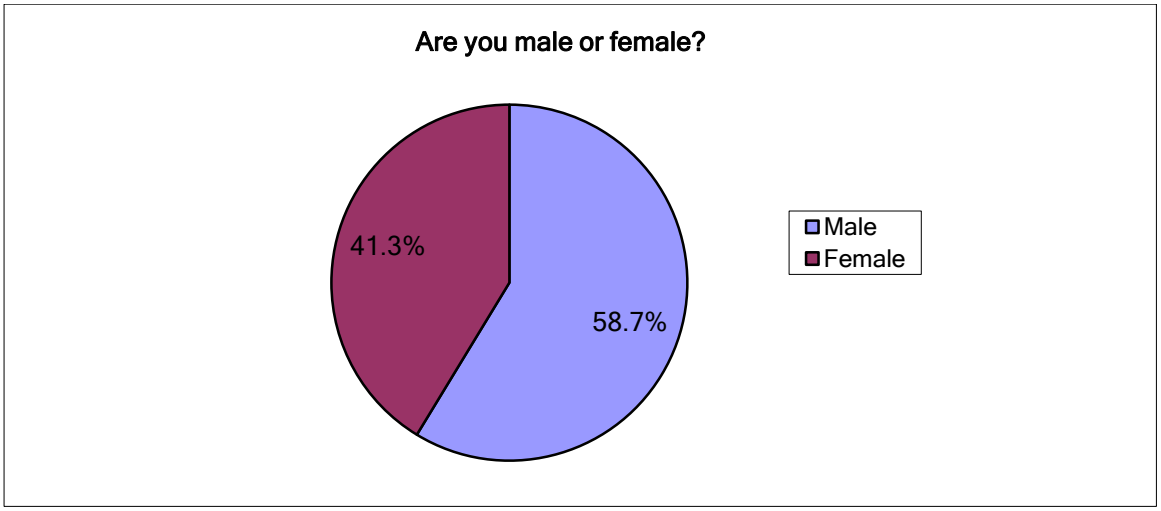
Question	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Std. Error	Kurtosis	Std. Error
How often do you use online social network platforms?	201	3	1	4	1.53	0.813	0.66	1.505	0.172	1.542	0.341
Which country are you based in?	201	0	1	1	1	0	0	.	.	.	.
Are you male or female?	201	1	1	2	1.41	0.494	0.244	0.356	0.172	-1.892	0.341
Which category below includes your age?	201	5	2	7	3.79	0.875	0.766	1.099	0.172	1.935	0.341
Which racial group are you part of?	201	3	1	4	1.3	0.673	0.452	2.141	0.172	3.516	0.341
What is the highest level of school you have completed or the highest degree you have received?	201	4	2	6	3.52	0.995	0.991	0.105	0.172	-0.796	0.341
What is your employment status?	201	5	1	6	1.63	1.116	1.245	1.76	0.172	2.644	0.341
How many years have you used the internet for?	201	2	2	4	3.97	0.198	0.039	-7.376	0.172	59.656	0.341
Would you consider yourself a basic, intermediate or advanced web user ?	201	2	1	3	2.48	0.592	0.351	-0.661	0.172	-0.513	0.341
Have you transacted online in the last 6 months as a buyer or a seller (online banking, classifieds, auctions, online store etc.)	201	1	1	2	1.07	0.263	0.069	3.262	0.172	8.726	0.341
Which online social networks do you currently have an active account on? Facebook	201	1	0	1	0.99	0.1	0.01	-9.949	0.172	97.96	0.341
Which online social networks do you currently have an active account on? Twitter	201	2	0	2	1.1	0.997	0.994	-0.212	0.172	-1.975	0.341
Which online social networks do you currently have an active account on? LinkedIn	201	3	0	3	1.87	1.458	2.127	-0.507	0.172	-1.761	0.341

Question	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Std. Error	Kurtosis	Std. Error
Which online social networks do you currently have an active account on? MySpace	201	4	0	4	0.26	0.986	0.973	3.567	0.172	10.828	0.341
Which online social networks do you currently have an active account on? Other	201	5	0	5	0.7	1.736	3.012	2.099	0.172	2.43	0.341
Which online social networks do you currently have an active account on? None	201	6	0	6	0.03	0.423	0.179	14.177	0.172	201	0.341
How many years have you used any of the following types of online social network platforms like Facebook, LinkedIn, MySpace, forums, user groups, mailing lists?	201	3	1	4	3.71	0.553	0.306	-1.97	0.172	3.855	0.341
How many friends do you have on Facebook	201	2	1	3	2.47	0.686	0.47	-0.933	0.172	-0.355	0.341
Do you use online social networks for personal use, business use or both?	201	2	1	3	1.98	1	1	0.04	0.172	-2.013	0.341

Appendix C – Descriptive Statistics

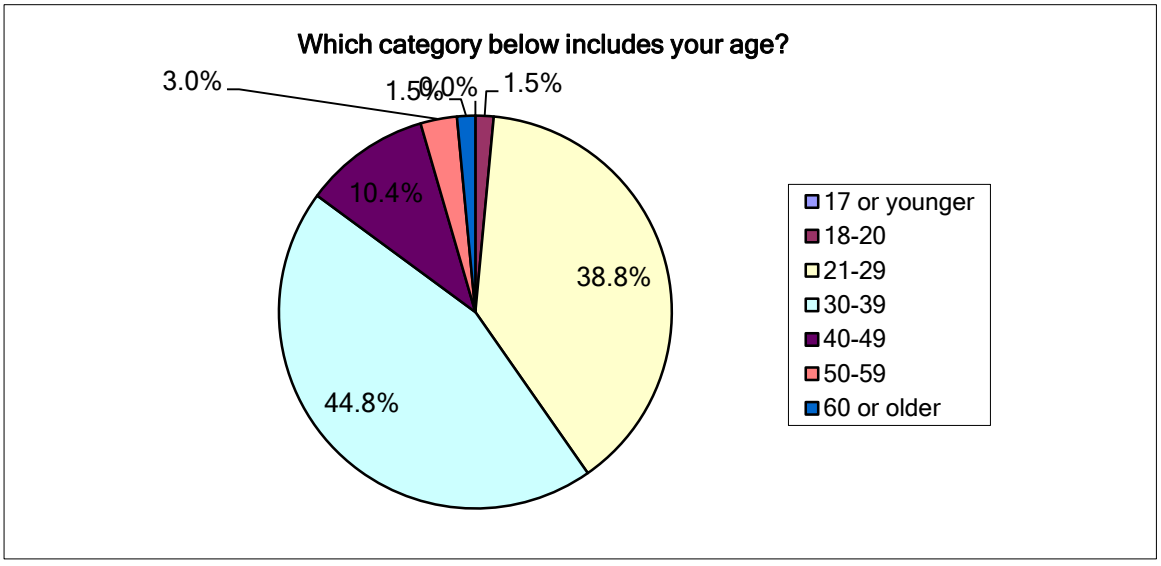
C.1. Gender

Figure 24 Descriptive statistics for demographic variable Gender



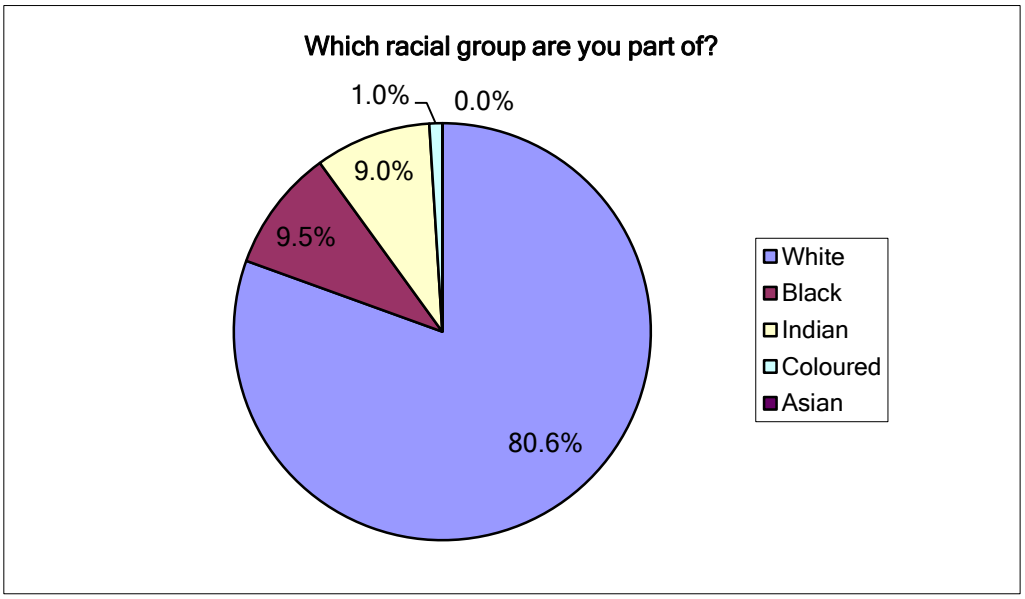
C.2. Age

Figure 25 Descriptive statistics for demographic variable Age group



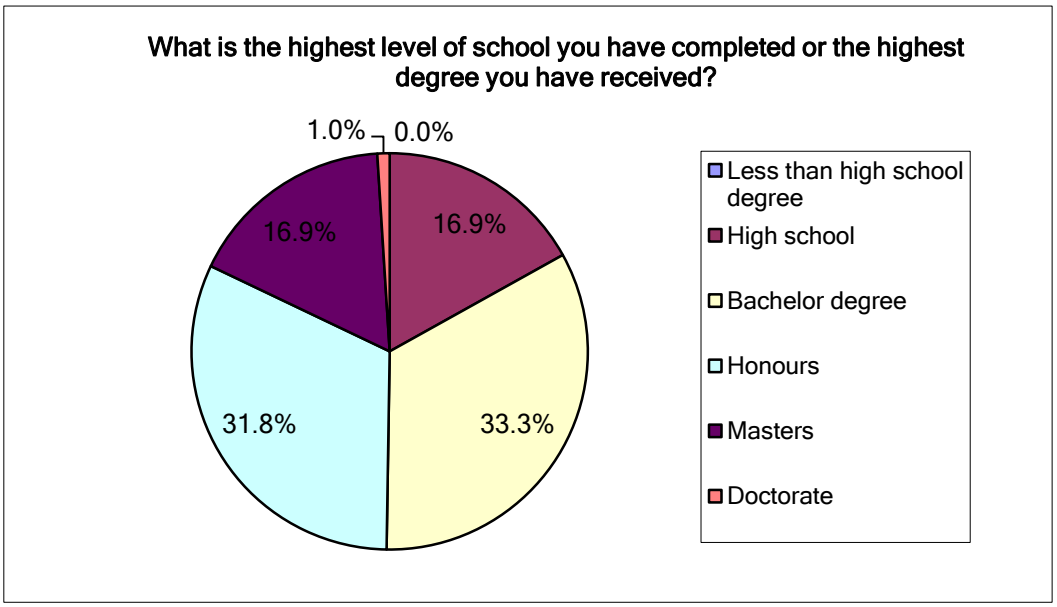
C.3. Racial Group

Figure 26 Descriptive statistics for demographic variable Racial Group



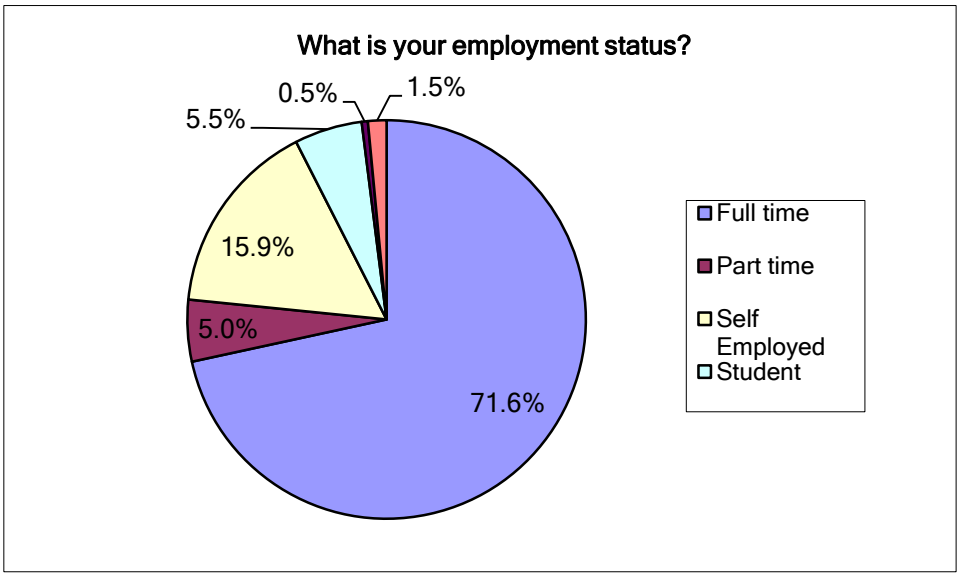
C.4. Level of Education

Figure 27 Descriptive statistics for demographic variable Level of Education



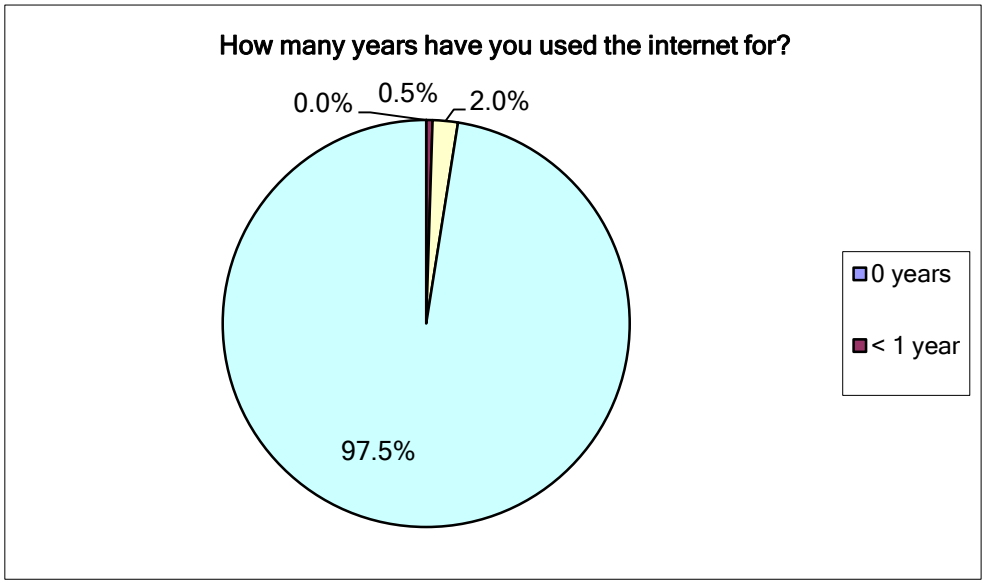
C.5. Employment Status

Figure 28 Descriptive statistics for demographic variable Employment status



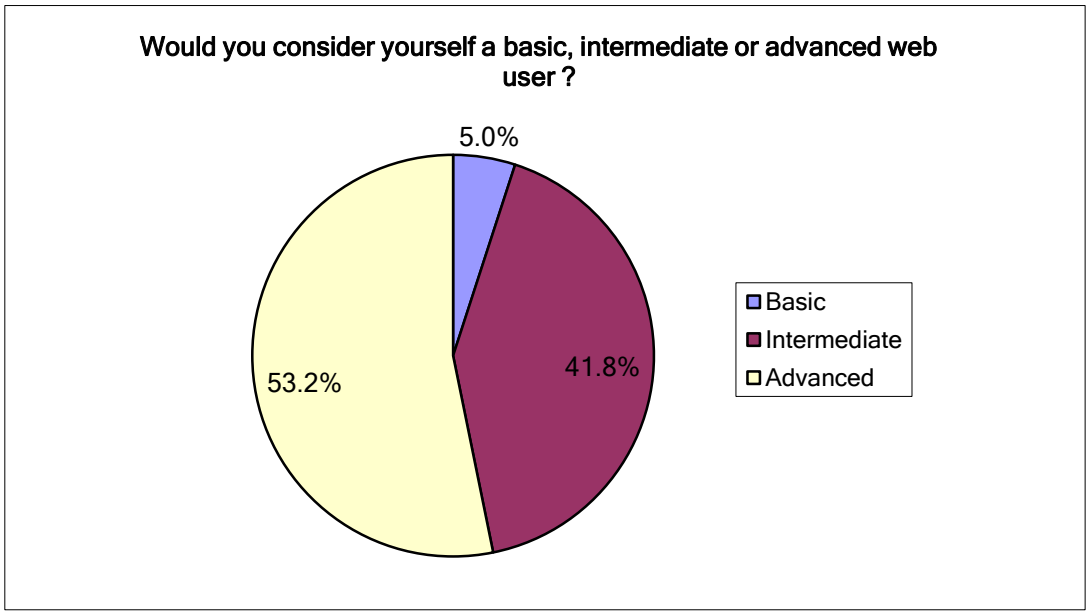
C.6. Experience using the Internet

Figure 29 Descriptive statistics for variable Internet years' experience



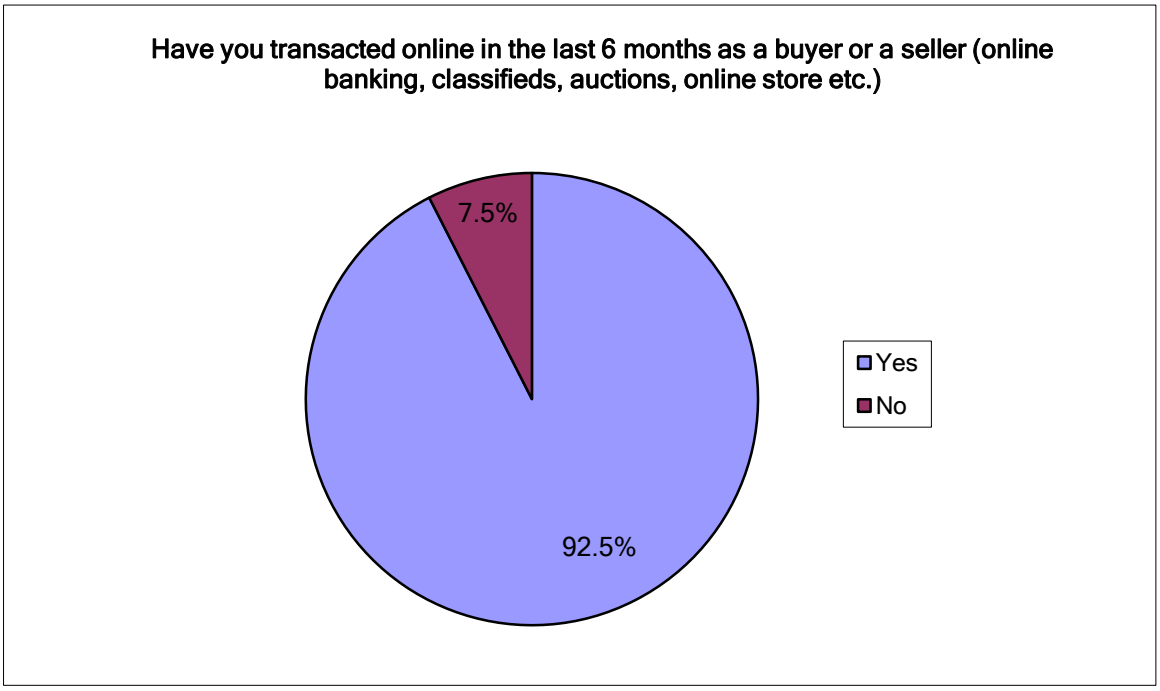
C.7. Web User Level

Figure 30 Descriptive statistics for variable Level of Web user



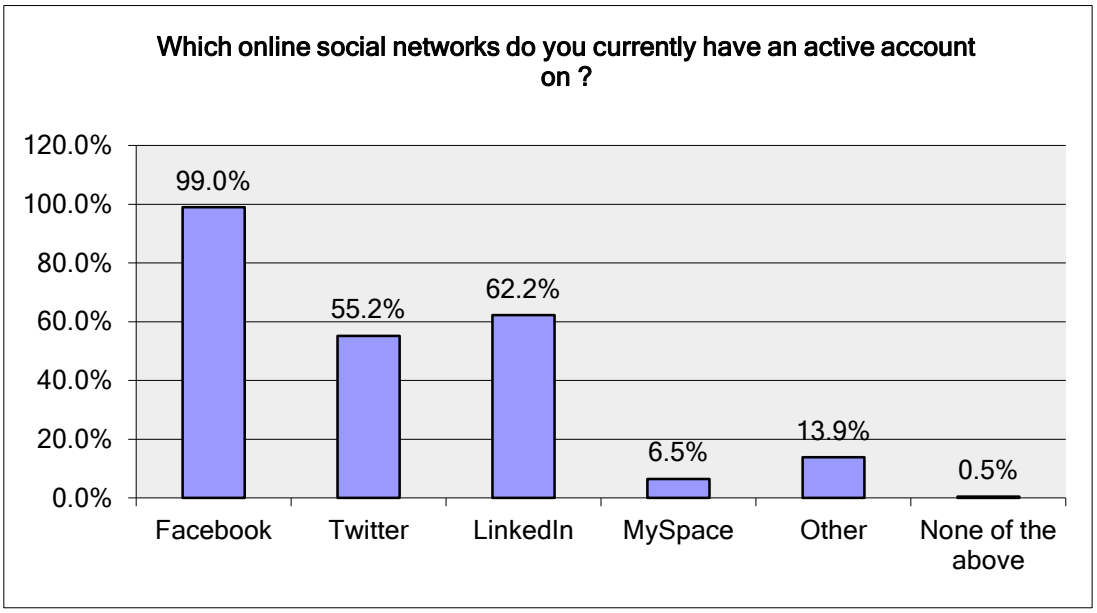
C.8. Transacted Online Recently

Figure 31 Descriptive statistics for variable Transacted Online



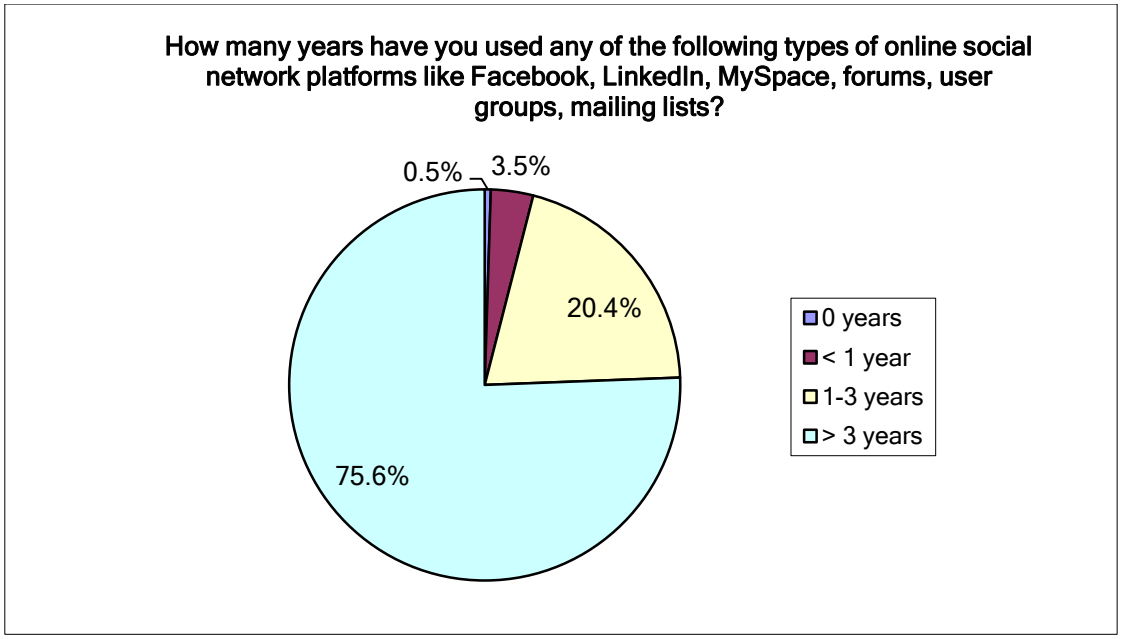
C.9. Social Networks with Active user account

Figure 32 Descriptive statistics for variable Social Network accounts



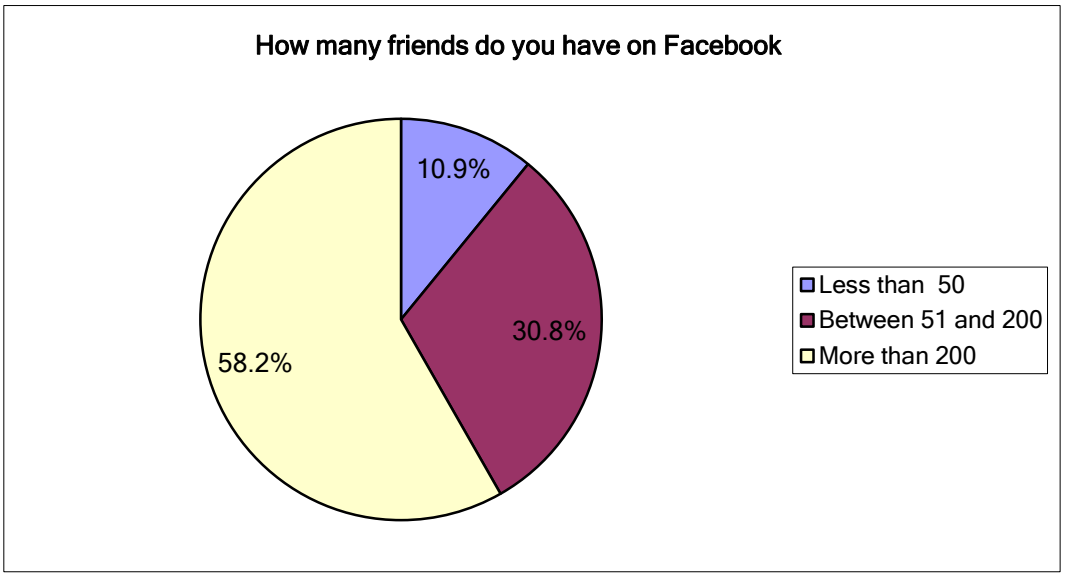
C.10. Experience in using OSNs

Figure 33 Descriptive statistics for variable Online Social network experience



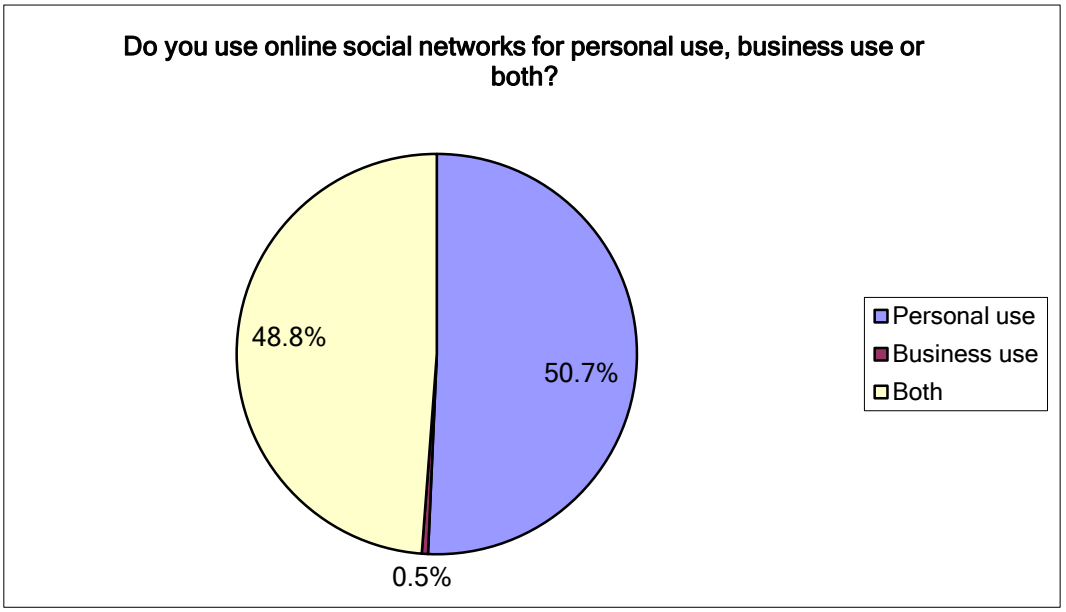
C.11. Size of online social network

Figure 34 Descriptive statistics for variable Number of Facebook friends



C.12. Utility of Online Social Networks

Figure 35 Descriptive statistics for Reasons for using online social networks



Appendix D – Descriptive Statistics for Measurement Scale Items

Table 19 Descriptive statistics for Measurement Scale Items

Question	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Std. Error	Kurtosis	Std. Error
I feel safe in sharing identifying personal information on my Facebook profile	201	1	5	2.7	1.083	1.172	0.223	0.172	-0.76	0.341
Viewing a friend's Facebook profile (such as a their real name and photograph) gives me the confidence that I am connected to the right person	201	1	5	3.91	0.947	0.896	-0.953	0.172	0.746	0.341
I feel comfortable seeing others sharing personal information on their status updates	201	1	5	3.14	1.046	1.094	-0.293	0.172	-0.696	0.341
I believe that the profile information that my friends post is accurate and true	201	1	5	3.48	0.801	0.641	-0.622	0.172	-0.199	0.341
I share more identifying personal information on Facebook than on other online platforms	201	1	5	3.06	1.256	1.576	-0.251	0.172	-1.087	0.341
I like the fact that I can connect with friends	201	1	5	4.37	0.628	0.394	-0.961	0.172	2.919	0.341
My Facebook connections are considered real world friends	201	1	5	3.11	1.062	1.128	-0.069	0.172	-0.896	0.341
Connecting with friends on Facebook assists me in maintaining a real world relationship with that contact	201	1	5	3.42	1.084	1.175	-0.501	0.172	-0.635	0.341
My Facebook friends would keep their commitments made to me	201	1	5	3	0.908	0.825	-0.293	0.172	-0.427	0.341
I would describe my Facebook friends as honest	201	1	5	3.34	0.739	0.547	-0.496	0.172	0.463	0.341

Question	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Std. Error	Kurtosis	Std. Error
Before connecting with another Facebook user I browse their friends list	201	1	5	3.08	1.182	1.398	-0.019	0.172	-1.192	0.341
I enjoy browsing my friends network of connections	201	1	5	3.21	0.947	0.896	-0.358	0.172	-0.742	0.341
I am more inclined to transact with someone who is part of a friends network	201	1	5	3.56	0.932	0.868	-0.618	0.172	-0.216	0.341
I use Facebook to meet new people	201	2	5	4.06	0.9	0.811	-0.792	0.172	-0.063	0.341
I only use Facebook to connect with people I have an existing offline relationship with	201	1	5	3.63	1.106	1.224	-0.484	0.172	-0.905	0.341
My network of offline friends has not increased in size from using Facebook	201	1	5	3.62	1.067	1.138	-0.709	0.172	-0.292	0.341
I have used Facebook to check out someone I met in person	201	1	5	3.78	1.079	1.165	-1.062	0.172	0.403	0.341
I have used Facebook to learn more about other people in my workplace	201	1	5	3.2	1.159	1.343	-0.27	0.172	-1.054	0.341
I use Facebook to keep in touch with my old offline friends	201	1	5	4.17	0.797	0.635	-1.103	0.172	1.646	0.341
All of my Facebook friends are people I first met offline	201	1	5	3.58	1.287	1.655	-0.493	0.172	-1.101	0.341
I feel free to post content on any topic I feel is relevant at the time	201	1	5	3.21	1.104	1.219	-0.231	0.172	-0.93	0.341
I am interested in the content that my friends post on Facebook	201	1	5	3.61	0.793	0.629	-0.951	0.172	1.336	0.341
Viewing a friend's status updates, photos and other personal information helps me maintain a relationship with that person	201	1	5	3.54	0.985	0.969	-0.563	0.172	-0.258	0.341

Question	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Std. Error	Kurtosis	Std. Error
I use Facebook to connect more with individual people, than to connect with a group of people around a specific topic	201	1	5	3.85	0.861	0.741	-0.742	0.172	0.35	0.341
I use Facebook as a substitute for engaging with friends in person	201	1	5	2.19	0.952	0.907	0.794	0.172	0.074	0.341
My experience on Facebook is more engaging than on older online platforms	201	1	5	3.5	1.011	1.021	-0.55	0.172	-0.128	0.341
Interacting on Facebook can be a substitute to meeting in person	201	1	5	2.17	1.073	1.151	0.712	0.172	-0.455	0.341
It is possible to maintain a real world relationship by interacting with that friend on Facebook	201	1	5	2.95	1.076	1.158	-0.314	0.172	-0.98	0.341
I find using Facebook entertaining and enjoyable	201	1	5	3.91	0.701	0.492	-1.016	0.172	2.285	0.341
Facebook is more fun and entertaining than other online community websites	201	1	5	3.68	0.871	0.758	-0.571	0.172	0.564	0.341
Having fun on Facebook makes me comfortable to use it more	201	1	5	3.55	0.871	0.759	-0.368	0.172	-0.152	0.341
In general people do care about the wellbeing of others	201	1	5	3.58	0.839	0.704	-1.031	0.172	0.821	0.341
In general most people keep their promises	201	1	5	3.28	0.827	0.684	-0.518	0.172	-0.454	0.341
Most people are honest in their dealings with others	201	1	5	3.26	0.826	0.683	-0.353	0.172	-0.889	0.341
Most people are concerned about other people’s problems	201	1	5	2.97	0.885	0.784	-0.063	0.172	-0.843	0.341
Most people care enough to be helpful rather than just looking out for themselves	201	1	5	3.18	0.823	0.678	-0.344	0.172	-0.635	0.341
I generally give people the benefit of the doubt when I first meet them	201	1	5	3.82	0.686	0.471	-1.433	0.172	3.972	0.341

Question	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Std. Error	Kurtosis	Std. Error
I usually trust people until I am given a reason not to trust them	201	1	5	3.67	0.849	0.722	-0.846	0.172	0.471	0.341
I consider Facebook friends real friends	201	1	5	2.91	0.918	0.842	-0.174	0.172	-0.979	0.341
Friends on Facebook treat me the same online as they do offline	201	1	5	3.13	0.987	0.973	-0.294	0.172	-1.069	0.341
It is possible to complete a business transaction with any Facebook friend	201	1	4	2.71	0.952	0.906	-0.13	0.172	-0.961	0.341
I would feel confident in transacting online with a Facebook friend	201	1	4	2.88	0.962	0.926	-0.302	0.172	-1.009	0.341
I believe a Facebook friend is capable of delivering on his promises	201	1	5	3.15	0.823	0.678	-0.555	0.172	0.213	0.341
My Facebook friends have made sacrifices for me in the past	201	1	5	2.97	0.902	0.814	-0.261	0.172	-0.334	0.341
All of my Facebook friends care for me	201	1	5	2.44	0.792	0.627	0.268	0.172	-0.032	0.341
In times of need, my Facebook friends have made an effort to assist me	201	1	5	3	0.863	0.745	-0.339	0.172	-0.429	0.341
I believe all of my Facebook friends would act in my best interest	201	1	5	2.69	0.881	0.776	0.038	0.172	-0.651	0.341
All of my Facebook friends are interested in my wellbeing, not just their own	201	1	5	2.64	0.838	0.702	0.049	0.172	-0.408	0.341
All of my Facebook friends would keep their promises	201	1	4	2.62	0.798	0.636	-0.107	0.172	-0.419	0.341
All of my Facebook friends are honest in their dealings with me	201	1	4	2.89	0.801	0.642	-0.379	0.172	-0.254	0.341
I believe that the content that I post on Facebook will be treated with respect by other users	201	1	5	3.03	0.862	0.744	-0.256	0.172	-0.955	0.341
All of my Facebook friends would not take advantage of me in a transaction	201	1	5	2.88	0.816	0.666	0.056	0.172	-0.866	0.341

Question	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Std. Error	Kurtosis	Std. Error
Should I transact with a Facebook friend I believe they will be honest	201	1	5	3.25	0.78	0.608	-0.595	0.172	-0.373	0.341
I believe that I can trust my all of my Facebook friends	201	1	4	2.68	0.893	0.798	0.035	0.172	-0.885	0.341
Facebook friends share/post only information that is correct and true	201	1	4	2.64	0.906	0.821	-0.043	0.172	-0.82	0.341
My level of trust with another online user is higher when that person is connected to my social network.	201	1	5	3.35	0.91	0.828	-0.546	0.172	-0.16	0.341
I would feel more comfortable in transacting online with a connection in my online social network, than users outside of my network	201	1	5	3.51	0.912	0.831	-0.797	0.172	0.15	0.341
Transacting online with one of my Facebook friends has lower risk	201	1	5	3.03	0.961	0.924	-0.172	0.172	-0.969	0.341
I expect my Facebook friends to deliver on their commitments in an online transaction	201	1	5	3.45	0.836	0.699	-0.86	0.172	0.254	0.341
I feel less vulnerable when dealing online with someone in my online social network	201	1	5	3.29	0.852	0.726	-0.69	0.172	-0.295	0.341
I would feel a sense of betrayal if a Facebook friend acted against my interests	201	1	5	3.62	0.882	0.778	-0.935	0.172	0.783	0.341
All of my Facebook friends are trustworthy	201	1	4	2.64	0.832	0.692	-0.232	0.172	-0.451	0.341

Appendix E - Structural Equation Modelling SPSS AMOS output

E.1. Regression Weights for the Final model

Table 20 Regression Weights from the AMOS SEM final model iteration

RegressionWeights:(Groupnumber1-Defaultmodel)	Estimate	S.E.	C.R.	P	Label
InformationDisclosure<---PersonalInformation	1				
ConnectedNetworks<---Connections	1				
PropensityToTrust<---InformationDisclosure	1				
PropensityToTrust<---ConnectedNetworks	1.126	0.497	2.264	0.024	
Ability<---PropensityToTrust	3.01	0.9	3.346	***	
Benevolence<---PropensityToTrust	2.278	0.717	3.177	0.001	
Integrity<---PropensityToTrust	3.302	0.957	3.449	***	
PersInfo_1<---PersonalInformation	1				
UserContent_1<---UserGeneratedContent	1				
UserContent_2<---UserGeneratedContent	0.494	0.155	3.181	0.001	
UserContent_3<---UserGeneratedContent	1.541	0.331	4.654	***	
Connections_1<---Connections	1				
Connections_2<---Connections	5.934	2.009	2.954	0.003	
Connections_3<---Connections	6.077	2.057	2.955	0.003	
Connections_4<---Connections	5.682	1.905	2.983	0.003	
Connections_5<---Connections	3.993	1.356	2.944	0.003	
BrowseConnec_1<---BrowseNetworks	1				
BrowseConnec_3<---BrowseNetworks	1				
UserIntent_2<---UserIntensions	1.347	0.215	6.269	***	
UserIntent_3<---UserIntensions	0.942	0.18	5.218	***	
UserIntent_7<---UserIntensions	1.55	0.248	6.255	***	
OSNOrg_1<---NetworkStructure	1				
OSNOrg_2<---NetworkStructure	1.245	0.258	4.832	***	
OSNOrg_3<---NetworkStructure	1.156	0.249	4.647	***	
OSNOrg_4<---NetworkStructure	1.001	0.229	4.382	***	
OnOffConverge_1<---OnOffConvergence	1				
OnOffConverge_2<---OnOffConvergence	0.211	0.129	1.639	0.101	
OnOffConverge_3<---OnOffConvergence	1.276	0.304	4.202	***	
OnOffConverge_4<---OnOffConvergence	0.773	0.177	4.354	***	
Entertain_1<---Entertainment	1				
Entertain_2<---Entertainment	1.517	0.154	9.821	***	
Entertain_3<---Entertainment	1.276	0.138	9.269	***	
OSNUtility<---UserIntensions	1				
Convergence<---Entertainment	1				

RegressionWeights:(Groupnumber1-Defaultmodel)	Estimate	S.E.	C.R.	P	Label
UserIntent_1<---UserIntensions	1				
Ability_1<---Ability	1				
Ability_3<---Ability	0.705	0.131	5.404	***	
Ability_4<---Ability	0.617	0.13	4.736	***	
Ability_5<---Ability	0.887	0.119	7.441	***	
Ability_2<---Ability	0.811	0.137	5.927	***	
Benevolence_1<---Benevolence	1				
Benevolence_3<---Benevolence	1.183	0.201	5.873	***	
Benevolence_4<---Benevolence	1.545	0.234	6.61	***	
Benevolence_5<---Benevolence	1.484	0.224	6.636	***	
Benevolence_2<---Benevolence	1.28	0.201	6.378	***	
Integrity_1<---Integrity	1				
Integrity_3<---Integrity	0.734	0.097	7.53	***	
Integrity_4<---Integrity	0.885	0.089	9.907	***	
Integrity_5<---Integrity	0.917	0.084	10.893	***	
Integrity_2<---Integrity	1.023	0.085	12.038	***	
Propensity_1<---PropensityToTrust	1				
Propensity_2<---PropensityToTrust	1.963	0.628	3.127	0.002	
Propensity_3<---PropensityToTrust	2.06	0.65	3.167	0.002	
Propensity_4<---PropensityToTrust	2.334	0.727	3.209	0.001	
Propensity_5<---PropensityToTrust	1.596	0.543	2.939	0.003	
Propensity_6<---PropensityToTrust	0.889	0.362	2.454	0.014	
Propensity_7<---PropensityToTrust	0.781	0.395	1.978	0.048	
PersInfo_1<---UserGeneratedContent	1.488	0.327	4.545	***	
UserIntent_6<---NetworkStructure	0.959	0.216	4.448	***	
OnOffConverge_2<---Entertainment	0.993	0.155	6.416	***	
OSNOrg_3<---Connections	2.874	0.993	2.893	0.004	
Connections_1<---NetworkStructure	0.626	0.15	4.175	***	

E.2. Standardised Regression Coefficients for the Final Model

Table 21 Standardised Regression Weights for the final model

StandardisedRegressionWeights:(Groupnumber1-Defaultmodel)	Estimate
InformationDisclosure<---PersonalInformation	1
ConnectedNetworks<---Connections	1
PropensityToTrust<---InformationDisclosure	0.647
PropensityToTrust<---ConnectedNetworks	0.762
Ability<---PropensityToTrust	1

StandardisedRegressionWeights:(Groupnumber1-Defaultmodel)	Estimate
Benevolence<---PropensityToTrust	1
Integrity<---PropensityToTrust	1
PersInfo_1<---PersonalInformation	0.111
UserContent_1<---UserGeneratedContent	0.487
UserContent_2<---UserGeneratedContent	0.315
UserContent_3<---UserGeneratedContent	0.625
Connections_1<---Connections	0.208
Connections_2<---Connections	0.709
Connections_3<---Connections	0.712
Connections_4<---Connections	0.794
Connections_5<---Connections	0.685
BrowseConnec_1<---BrowseNetworks	0.284
BrowseConnec_3<---BrowseNetworks	0.36
UserIntent_2<---UserIntensions	0.682
UserIntent_3<---UserIntensions	0.494
UserIntent_7<---UserIntensions	0.674
OSNOrg_1<---NetworkStructure	0.414
OSNOrg_2<---NetworkStructure	0.717
OSNOrg_3<---NetworkStructure	0.573
OSNOrg_4<---NetworkStructure	0.532
OnOffConverge_1<---OnOffConvergence	0.641
OnOffConverge_2<---OnOffConvergence	0.128
OnOffConverge_3<---OnOffConvergence	0.726
OnOffConverge_4<---OnOffConvergence	0.438
Entertain_1<---Entertainment	0.714
Entertain_2<---Entertainment	0.873
Entertain_3<---Entertainment	0.734
OSNUtility<---UserIntensions	1
Convergence<---Entertainment	1
UserIntent_1<---UserIntensions	0.622
Ability_1<---Ability	0.615
Ability_3<---Ability	0.418
Ability_4<---Ability	0.362
Ability_5<---Ability	0.608
Ability_2<---Ability	0.464
Benevolence_1<---Benevolence	0.473
Benevolence_3<---Benevolence	0.585
Benevolence_4<---Benevolence	0.749
Benevolence_5<---Benevolence	0.756
Benevolence_2<---Benevolence	0.69
Integrity_1<---Integrity	0.776
Integrity_3<---Integrity	0.527

StandardisedRegressionWeights:(Groupnumber1-Defaultmodel)	Estimate
Integrity_4<---Integrity	0.672
Integrity_5<---Integrity	0.728
Integrity_2<---Integrity	0.79
Propensity_1<---PropensityToTrust	0.227
Propensity_2<---PropensityToTrust	0.445
Propensity_3<---PropensityToTrust	0.467
Propensity_4<---PropensityToTrust	0.494
Propensity_5<---PropensityToTrust	0.363
Propensity_6<---PropensityToTrust	0.243
Propensity_7<---PropensityToTrust	0.172
PersInfo_1<---UserGeneratedContent	0.693
UserIntent_6<---NetworkStructure	0.55
OnOffConverge_2<---Entertainment	0.495
OSNOrg_3<---Connections	0.396
Connections_1<---NetworkStructure	0.47