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Investigating the effects of selected website tools on consumer trust and risk perceptions in e-commerce

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Investigating the Effects of Selected Website Tools on Consumer Trust and Risk Perceptions in E-Commerce

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ABSTRACT

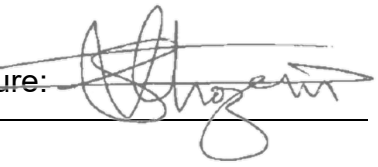
Inspiring trust and lowering risk perceptions of website visitors is necessary for the success of e-commerce. However, there is insufficient evidence on the most effective tools and website features for building trust and reducing risk in the online context. Building on previous literature on using website tools to increase Trust and lower Risk in e-commerce, this study carried out a quasi-experiment to examine the effectiveness of a Live Chat tool versus Customer Reviews increasing Trust and Lowering Risk perceptions among South African website visitors. This study was a randomized online quasi-experiment with 101 participants split across four treatment groups representing four different versions of an e-commerce website in the South African context. Data was collected by means of an online survey of participants. ANOVA, correlation and regression analysis were used to analyse the data. The study found support for the logic that the Live Chat website tool is more effective than Customer Reviews in increasing Trust and lowering Risk perceptions among visitors to an e-commerce website. The study also confirmed the importance of Information Quality to Trust and Risk, and the consequent effects of Trust, Risk and Benefits on Purchase Intention. As a result this study recommends that SMMEs in South Africa looking to succeed in e-commerce with a limited budget need to prioritise Live Chat website tools over Customer Review tools to establish Trust and reduce Risk perceptions among new visitors.

KEY WORDS

trust transfer; risk-perception; website-tools; e-service; website; South Africa; access to markets; small medium micro enterprises; live chat; customer reviews; human-website; e-commerce; willingness to purchase

DECLARATION

I, Sibusiso V. Khoza, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Name: Sibusiso V. Khoza Signature: 

Signed at Buffelsdrift Game & Nature Reserve, Roodeplaat, Tshwane, Gauteng, South Africa

On the 18th day of June 2021

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My completion of this research could not have been accomplished without the support of the right partners in hosting at Sive.Host. Mercy Magwele and Noxolo Khoza et al.

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LIST OF ACRONYMS

SMME - Small Medium and Micro Enterprises

SPSS - Statistical Package for Social Sciences

CHAPTER 1. INTRODUCTION

1.1 Purpose of the study

In South Africa, many small medium and micro enterprises (SMME) sell services but struggle with access to markets because of their small advertising budgets. Some have an opportunity to innovate their services to electronic or e-services, and to use e-commerce to gain access to markets. However, it is difficult to establish trust when consumers interact with SMME providers of e-services only in virtual environments. These environments lack verbal and visual cues and risk perceptions can be high. The success of SMME e-service providers is dependent on their ability to build online trust and reduce risk perceptions.

If SMMEs can establish trust while reducing risk perceptions, they can convert more of their website visitors to customers, and access other markets in South Africa beyond their own small communities.

However, there is not yet available evidence on the most effective tools for trust building in the online context. Therefore, this research undertakes a quasi-experiment to identify which website tools would be most effective in building trust and reducing consumer risk perceptions in micro South African enterprises selling e-services.

More specifically, the quasi-experiment aims to determine whether Live Chat (Chat) or Customer Review (Review) tools are more effective in building trust while reducing risk perceptions among website visitors. The effectiveness will be measured by comparing the number of consumers willing to consider visiting the website again and possibly consider making a purchase in the near future from the website. The purpose of this study is to examine the relative effects of Live Chat website tool and Customer Review website tool on a website visitor's purchase intentions.

1.2 Context of the study

South Africa has a National Development Plan (NDP) Vision 2030, which is: ‘to reduce unemployment to 6% in 2030’ (National Planning Commission, 2020). One challenge in realising this Vision 2030 is a constantly increasing unemployment rate, especially among the youth aged 15 to 34 years where it is higher irrespective of education level in South Africa (statssa.gov.za, 2019). This is partly a result of Small Micro and Medium (SMME) businesses (Dhanah, 2016) not hiring or growing fast enough due to lack of the much desired access to markets to sell their products and services (Yueh, 2014).

With the opportunity of e-commerce growing strongly at 20 to 35% annually in South Africa (Ngalonkulu, 2019), there is a high chance that South African SMMEs can benefit greatly from e-commerce in accessing markets previously not accessible to them.

Better knowledge of which website tools are more effective for building online trust with consumers and for reducing their risk perceptions may help SMMEs be more successful online and to increase sales. To assist them to meet the increased demand for the delivery of their products and services, SMMEs might then employ more people (South African Reserve Bank, 2015). This may help to advance the country closer to realising the Vision 2030 as stated on the NDP.

Every selling opportunity starts with a simple conversation and is executed whenever a need is met and the appropriate amount of trust is established (Port, 2017).

For an e-commerce business, the sales conversation starts with the website of the business. Take as an example a skilled local website designing agency operating in the township economy (Vuba, 2019) offering website design, website registration and management to local schools, Spaza shops and other establishments closest to the agency in a township in Mpumalanga called Zwelisha. With more effective website tools, this agency can now sell to remote

businesses found in other townships across South Africa that do not necessarily have such a skilled agency in designing websites. The agency will now have increased their revenues by accessing other markets. Thereby having more budget to create a new job opening in their agency and in their local community in Zwelisha Mpumalanga.

With the most effective website tools, this agency can have access to not only the South African market, but also the United States Market or any other English speaking market all around world.

1.3 Research problem

It has been demonstrated in business that building consumer trust is an excellent way to reduce risk perceptions, increase profits and build a strong, dependable consumer base (Paliszkiewicz & Klepacki, 2013). Businesses usually make sales through points of contact. With physical businesses this could be the salesperson or the store front. These physical and real world interactions allow these businesses to build trust (Swan, Bowers, & Richardson, 1999).

E-commerce businesses selling services and intangible products, such as domain management services, website design and hosting services, rely on their website as the point of contact (Ceaparu, Demner, Hung, Zhao, & Shneiderman, 2001). If potential consumers do not have trust in the website, it is not likely that the consumer will form positive perceptions of the company's ability to deliver the intangible product or service (Thatcher, Carter, Li, & Rong, 2013), or positive perceptions of the quality of its service offering. If a potential consumer does not have trust, engagement with the service is not likely (Lee & Turban, 2001). Without trust, a consumer's risk perception is not going to decrease, and consumers are less likely to buy from the business (Lee, Ahn, Song, & Ahn, 2018).

All sales start with a simple conversation and are executed when a need is met and the appropriate amount of trust is assured (Port, 2017). For an e-commerce business, the sales conversation starts with the website of the business. This is unlike physical stores where trust is transferred from human being to human being, and where asking questions face to face allows the customer to pick up on visual and verbal cues or body language.

In e-commerce there is usually not enough information as consumers often try to look for the same cues as in face to face interactions when buying. Thus trust and risk perceptions play critical roles in e-commerce for consumers (Lee, Ahn, Song, & Ahn, 2018). The trust needs to be transferred from human being to website (Lee, Ahn, Song, & Ahn, 2018).

This transition from the much known and popular human-to-human transfer of trust toward a website-mediated trust relationship is usually difficult with new risks involved as the consumer cannot easily infer trust from the brand reputation of a physical product.

The consumer needs to overcome risk and insecurity such as:

1. trusting a website will do as it claims,
2. being willing to submit personal information,
3. making financial payments to an entity they have never met before,
4. providing credit card or other information that could possibly be used in the future without their consent or approval, and
5. providing credit card or other information to an entity that could be hacked or compromised, such as where credit card information ends up in the hands of malicious entities.

Therefore, without trust, there will be no e-commerce transactions. Trust reduces the risk perceptions of consumers, enabling e-commerce to succeed (Corbitt, Thanasankit, & Yi, 2003).

Past research has also tried to understand the antecedents through which consumers form trustworthiness perceptions in e-commerce and the implications of trust and risk perceptions for e-commerce adoption (Mou & Cohen, 2015). Some work has considered the role of vendor reputation (Mou & Cohen, 2015) and third party trust seals (Ceaparu, Demner, Hung, Zhao, & Shneiderman, 2001) for impacts on trust and risk. More recently, research has begun to consider the role of Customer Reviews (Kim, Maslowska, & Malthouse, 2017) and Live Chats (McLean & Wilson, 2016) as these tools have the potential to act as trust transfer mechanisms. Research also found how website tools in e-services impact site revisit (Rita, Oliveira, & Farisa, 2019) .

However, there is a gap in this previous research in that the researchers tend to examine Customer Review tools and Live Chat tools separately, and they do not compare them to find out which tool is more effective in increasing trust and reducing risk perceptions and positively influencing an e-services website visitor's purchase intention. Also, none of these research studies looked at the Customer Review tool and Live Chat tool in the South African e-service context.

The motivation to examine Customer Review and Live Chat as website tools is that they are both high cost (Mavlanova, Benbunan-Fich, Koufaris, & Lang, 2012), so this makes it important for the SMME environment in South Africa to know which of the two their small e-commerce budget should be utilised if they could only spend on one signalling tool.

Customer Reviews are inputs from others in the form of a rating or qualitative comments. Reviews are sometimes referred to as electronic word of mouth (eWOM) (Kim, Maslowska, & Malthouse, 2017). Customer Reviews have become more popular, customers who do not have complete information about a product or service usually look at what other customers that purchased the same product or service have to say (Kim & Srivastava, 2007). It has been observed in previous studies that the customer decision process is influenced by information from other trusted people, not from vendors or recommendation systems (Kim & Srivastava, 2007).

Most studies found that positive product reviews have a positive correlation with positive attitudes toward products and increase purchase intention, whereas negative ones have a negative effect to both attitude and purchase intent (Kim, Maslowska, & Malthouse, 2017). The length of a Customer Review message can also be an indicator for information quality (Huanga, Chen, Yen, & Tran, A study of factors that contribute to online review helpfulness, 2015), with longer messages expected to give high-quality information on product features and services. Another study found that review length has an inverted-U relationship with purchase probability (Kim, Maslowska, & Malthouse, 2017). Reviews also have other limitations in that they may be fake, where reviewers are incentivised to give positive feedback (He, Hollenbeck, & Proserpio, 2020). Therefore, Customer Reviews may not always be trusted.

Live Chat is a website based synchronous media that allows website visitors to ask for more detailed information regarding the service or product they are interested in buying. Live Chat serves as an online help desk and customer service on the website the visitor is browsing (Turel & Connelly, 2013). In some cases where Live Chat is used, customers usually ask more detailed information regarding the e-service they would like to buy, details like return policy and payment options (Turel & Connelly, 2013). Markus (2016) studied the use of online chat in the context of e-services and found that customer service might contribute to e-service quality. Live Chats may therefore help to increase trust and reduce risk through trust transference as a cognition-based antecedent, as per Kim et al (2008). Live Chats are also associated with increased perceptions of a provider's social presence, which is important for building trust (Koponen & Rytsy, 2020). However, Live Chats have limitations too where customers can be frustrated by delayed responses, unreliable or poor quality responses (Mclean & Osei-Frimpong, 2017). This could detract from trust-building efforts.

1.4 Research objectives

Following from the above problem, the objectives of this research are to:

1) Investigate the effect of a Live Chat website tool on Trust and Risk perceptions of visitors browsing an e-services website based in South Africa.
2) Investigate the effect of a Customer Review website tool on Trust and Risk perceptions of visitors browsing an e-services website based in South Africa.
3) Establish whether a Live Chat website tool is more effective than a Customer Reviews website tool in building Trust and reducing Risk perceptions of visitors browsing an e-services website based in South Africa.
4) Investigate the subsequent implications of Trust and Risk perceptions, along with other importance cognitions, for customer willingness to purchase an e-service.

1.5 Significance of the study

This study is looking to investigate (1) the effect of Live Chat website tool on trust and risk perceptions, (2) the effect of a Customer Review website tool on trust and risk perceptions of visitors browsing on e-services website based in South Africa, and (3) establish whether a Live Chat website tool is more effective than a Customer Reviews website tool in building trust and reducing Risk perceptions of visitors browsing an e-services website based in South Africa.

This study contributes to research on website tools in a number of ways. These include contribution to theory, contribution to method and contribution to practice and context.

This study makes a contribution to theory by comparing a Live Chat website tool directly with a Customer Review website tool for effects on trust and risk in e-commerce. Some researchers have looked at trust from a psychological view and defined trust as “a psychological state comprising the intention to accept

vulnerability based on positive expectations of the intentions or behaviours of another" (Rousseau, Sitkin, Burt, & Camerer, 1998). In the specific context of e-commerce, trust is defined as "the willingness of a consumer to be vulnerable to the actions of an internet merchant in an internet transaction, based on the expectation that the internet merchant will behave in certain agreeable ways, irrespective of the ability of the consumers to monitor or control that internet merchant" (Lee & Turban, 2001).

Risk perceptions in e-commerce has been defined as the consumer's belief about the potential uncertain negative outcomes associated with the internet transaction (Kim et al., 2007). Chang & Chen (2008) evaluated both trust and risk, and how together they relate to the intention to purchase. Their structural equation model indicated that together trust and risk have a great impact on the intention purchase on a website.

Some past work indicate that website tools act as signals, similar to other concepts like trust seals, and that these signals are important to increasing trust and reducing risk perceptions. However, extent research has not adequately compared the relative effectiveness of Live Chat versus Customer reviews in building trust and reducing risk. Thus there is no clarity on whether and which of the two website tools plays a more important role in trust building and risk reduction. By extending existing research models of trust and risk in e-commerce to incorporate the roles of Live Chats and Customer Reviews website tools, this research is extending theory.

This study makes a methodological contribution by using a quasi-experimental design to overcome the limitations of survey-based research designs. Rather than collecting only survey data without any particular website being reviewed in real-time, this study’s participants will be exposed to certain treatments (manipulations) in a website before responding to a set of questions. By manipulating exposure to the website tools of Customer Reviews and Live Chat, the research can better isolate the effects of these tools on participant’s trust and risk perceptions.

This study makes a practical and contextual contribution by focusing on how South African SMMEs offering e-services can more effectively establish trust and reduce risk perceptions. Results of this study will inform the e-services sector in South Africa by collecting and analysing data relevant to the local context and establishing which tools are more effective for local customers. The study will inform practice by determining the relative importance of Live Chat website tool and Customer Review website tool, and the extent to which they both affect trust and risk through a quasi-experiment. This study is then in a good position to give practical guidance to SMMEs providing e-services and looking to build online trust and reduce risk perceptions of consumer on the internet.

1.6 Delimitations of the study

The delimitation of the study is its focus on Live Chat website tool and Customer Review website tool only. While the selection of these tools is well motivated, the study does not focus on other website tools like third party seals. The website tools could have been third party seals of approval by reputable institutions in data privacy and verification agencies, but South Africa lacks recognisable seals in the online space, and in e-services particularly. Other website tools could have been privacy policies, terms of service, internal claims and website quality, but the focus will not be on these, and they will be common across all versions of the websites included in the quasi-experiment.

The participants in the research will be a consumer population linked to Wits University and a corporate in South Africa because they are easily accessible and more practical for the purpose of this study. This constitutes a non-probability convenience sample which limits generalisability of results.

A further delimitation is that there is only closed-ended 7 point Likert scale responses in the post-treatment survey, rather than additional open-ended responses. Although this will make it easy for people to take the survey, insights

into additional consumer perceptions and views cannot be explored through close-ended methods.

1.7 Definition of terms

Customer Reviews - feedback written on a website about a product or service by a customer who has purchased and used, or had experience with, the product or service (Kim, Maslowska, & Malthouse, 2017).

Live Chat - Live support applications are commonly used to provide immediate customer support and information to clients and customers (Beal, 2020).

Risk perception - consumer's belief about the potential uncertain negative outcomes associated with the internet transaction and the severity of the consequences should such negative outcomes occur (Kim et al., 2007).

Small Medium Micro Enterprises - Micro 0-10 employees, Small 11-50, Medium 50 - 250 employees (Zulu, L. D., 2019).

Trust - a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behaviours of another (Rousseau, Sitkin, Burt, & Camerer, 1998).

Trust transfer - The willingness to trust an entity because of another that has already earned your trust (Lee, Ahn, Song, & Ahn, 2018).

E-Commerce – It is the ability of buyers to purchase products and services on-line using Internet technologies and associated infrastructure (Pavlou, 2003).

E-service – As a subset of e-commerce, it is any service whose delivery is enabled by a website and incorporates a large self-service component i.e. where consumers co-produce the service outcome through their interaction with the website (Mou & Cohen, 2015).

1.8 Assumptions

- Trust can be transferred during an e-commerce transaction (Lee, Ahn, Song, & Ahn, 2018).
- Risk perceptions can be reduced (Kim et al., 2007).
- Trust and Risk perceptions can vary depending on website tools that form part of signalling on a website (Mavlanova, Benbunan-Fich, Koufaris, & Lang, 2012).
- Not all the participants see the benefit of buying an e-service from the website.

CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

In this literature review, the concepts of online Trust and Risk perceptions are defined. Next, website tools that can influence Trust and Risk in a website setting are discussed. The study's research model and hypotheses are then presented.

2.2 Trust and Risk in e-commerce

In e-commerce, trust transfer and reduction of risk perception play a primary role in the interaction between human and website (Comegys, Hannula, & Väisänen, 2009). Usually the best tool to transfer trust and reduce risk perceptions on a human-to-human relationship is to show the product to the potential buyer, let them touch it and ask questions face-to-face while they monitor verbal and visual cues (Swan, Bowers, & Richardson, 1999). This is clear and well known in businesses conducted face-to-face (Lee, Ahn, Song, & Ahn, 2018).

However, in e-commerce, a potential customer cannot see or touch an e-service or ask questions face-to-face. The potential customer must deal with an unfamiliar intermediary and must overcome perceptions of risk and give trust, such as by submitting personal information and providing credit card information to conclude a transaction.

2.2.1 TRUST

Some researchers have considered trust from a psychological view and defined trust as "a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behaviours of another" (Rousseau, Sitkin, Burt, & Camerer, 1998). In the specific context of e-

commerce, trust is defined as "the willingness of a consumer to be vulnerable to the actions of an internet merchant in an internet transaction, based on the expectation that the internet merchant will behave in certain agreeable ways, irrespective of the ability of the consumers to monitor or control that internet merchant" (Lee & Turban, 2001). All the views of trust have common ground in that the consumer has to give trust first, and then the merchant will have to earn the consumer's trust. Basically the consumer is always in a vulnerable state due to the virtual nature of online commerce, and the temporal and physical separation between themselves and the service provider. This increases the need for the consumer to believe that the seller and other online intermediaries will behave in a reliable and predictable ways, with their best interests in mind and without exploiting the virtual nature of online transactions to take advantage of the consumer.

a. *Dimensions of Trust in e-commerce*

Consumer trust in e-commerce is not built in the same way as the trust experienced with physical stores where consumers can walk in, smell the products, touch them and have face to face discussions with the seller. Trust on the internet is built through the use of electronic media like their website. So the trust relationship is based on a human-to- website technology relationship, which is a big change that a lot of people are not comfortable with (Shankar, Urban, & Sultan, 2002).

More specifically, in Business to Consumer (B2C) e-commerce, trust has been shown to have four dimensions. These are trust in the IT infrastructure, trust in institutional mechanisms, trust in merchant, and trust in website, as seen in figure 1 (Thatcher, Carter, Li, & Rong, 2013).

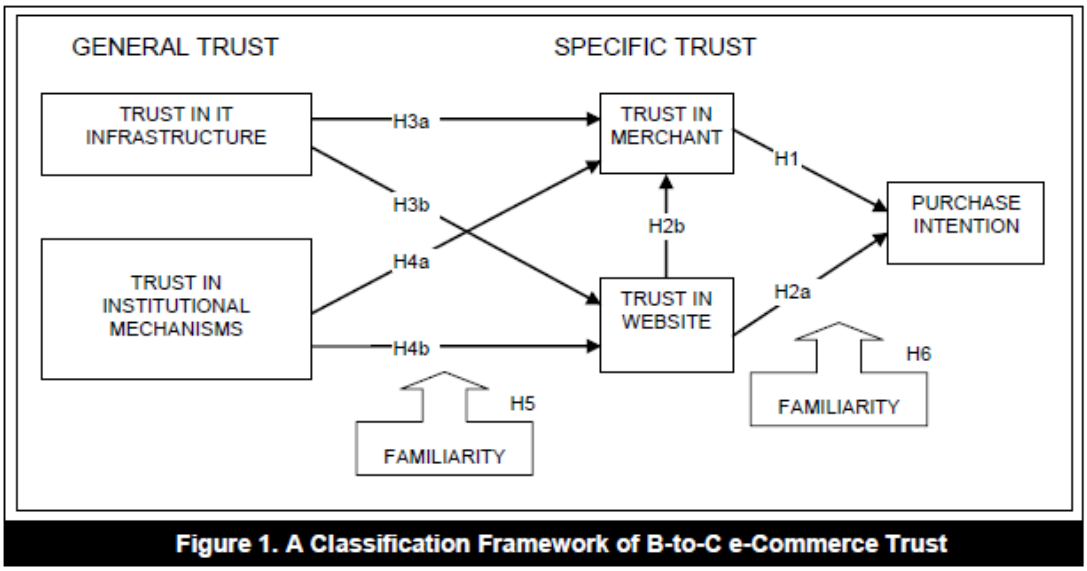


Figure 1: Classification Framework of B2C e-Commerce Trust

Thatcher's study found that trust in the IT infrastructure positively influences trust in the merchant and website. They also found that trust in the institutional mechanisms positively influences trust in the merchant, and with some familiarity it positively influences trust in the website too. Trust in website can also lead to trust in merchant, and with familiarity, trust in the website can lead to purchase intent.

Trust in IT infrastructure is defined as beliefs in three technical attributes: capability, reliability, and security of the underlying infrastructure of the internet (Thatcher, Carter, Li, & Rong, 2013). Trust in institutional mechanism is defined as website customer's beliefs in effectiveness, benevolence, and integrity of seal programs like TRUST-e and privacy seals, and other consumer protection laws and regulations (Thatcher, Carter, Li, & Rong, 2013). Trust in the merchant has been defined as trust in the provider as being knowledgeable and capable of completing transactions, honest, keeping promises, caring for customers and acting in the customer's best interest (Thatcher, Carter, Li, & Rong, 2013).

Trust in the merchant is more simply the consumer's belief in the competence, predictability and goodwill of the merchant or online provider (Corbitt,

Thanasankit, & Yi, 2003). Central to trust in e-commerce sellers is belief in the ability of the vendor, i.e. the notion that the seller is competent and capable of quality products and/or services, belief in the benevolence of the vendor, i.e. the idea that the seller has good intentions towards its consumers, belief in integrity, i.e. the hope that the seller lives up to promises and claims made on their website, and predictability, i.e. the ability of always behaving or occurring in the way expected (Gefen & Straub, 2004). Among these, integrity and predictability were the most important to influence purchase intent (Gefen & Straub, 2004). Others have described six categories of trust in online providers, namely; expertise, information, fairness in transactions, fairness in service, empathy and resolving concerns (Liao, Palvia, & Lin, 2006). Website quality was shown to influence trust in the online provider.

Trust in website is defined at a more technical level as the customer's belief in the website as having all necessary features to complete a transaction and that the features will function in a consistent and predictable manner (Thatcher, Carter, Li, & Rong, 2013). As suggested by Thatcher's model, in the online context, trust in the website can transfer to trust in the merchant.

b. *Trust and Behavioural outcomes in e-commerce*

Within the e-commerce literature, trust has been linked to behavioural intent. For example, in their research on online shopping, Bart et al. (2005) found a strong correlation between trust and behavioural intent. Behavioural intent included willingness to continue clicking on a website, abandoning versus returning to the website, sending emails, downloading files, and ordering from the website.

This effect of trust on behavioural intent was found to be strongest for websites with infrequently purchased[1], high-involvement items, and weakest for websites oriented toward frequent transactions (Bart, Shankar, Sultan, & Urban, 2005). High involvement items may be services or products that represents the consumer's personality, status and justifying lifestyle. It is reasonably intuitive that trust becomes more important to consumer behaviour as uncertainty increases, product/service familiarity decreases and the importance of the purchase to the consumer's over well-being increases.

Other studies considered how trust influences continuance intention instead of purchase intent. Liao et al. (2006) considered expectation to continue using a website and transacting with a retailer in the near future. A strong positive correlation was found in their structural equation model between continuance intention and trust (Liao, Palvia, & Lin, 2006). Another studied, examined how trust influences purchase volume. With the use of regression analysis, there was a positive correlation between trust and purchase volume. The increase in trust increased purchase volume (Comegys, Hannula, & Väisänen, 2009).

Taken together, the above literature supports the relevance of trust to consumer online behaviour. Higher levels of trust are associated with increased purchased

[1] An example relevant to this study is a business or individual buyer looking for service provider to purchase a website address through which they can sell products and services on the internet. Buying a website address is an infrequent purchase.

intentions, purchase volumes and continuance intentions, among other behaviours.

2.2.2 RISK PERCEPTIONS

Risk perceptions in e-commerce has been defined as the consumer's belief about the potential uncertain negative outcomes associated with the internet transaction (Kim et al., 2007). While other studies have investigated overall risk, there are several types of online risks discussed in the literature. These are summarised in Table 1.

Table 1: Risk dimensions

Risk	Definition
Financial	The notion that some type of monetary loss will be incurred by the consumer when transacting on the internet (Crespo, Bosque, & Sánchez, 2009). Seen to negatively influence outcome of purchase behaviour, including negative impacts on the volumes, frequency of online purchases, and browsing online with buying intent (Zhang, Tan, Xu, & Tan, 2012).
Privacy	The idea that the internet is not secure and all personal information the consumer shares will be compromised during an online transaction (Kim, Qu, & Kim, 2010).
Delivery	The possibility of waiting too long for the delivery of the purchase (Yan & Dai, 2009).
Performance	The chance that the item bought fails to meet the performance expectations of the consumer (Crespo, Bosque, & Sánchez, 2009).
Time	The potential for inconvenience and lost time during a transaction as a result of consumer struggling with the website, either be it navigation of submitting orders (Kim, Qu, & Kim, 2010).
Social	The possibility that family and friends will look unfavourably on the consumer for conducting their online purchase (Crespo, Bosque, & Sánchez, 2009).
Psychological	Uncertainty as to whether or not the purchase would fit with the

	consumer's self-image or result in loss of self-esteem. Although found to be a less influential type of risk in some studies (Crespo, Bosque, & Sánchez, 2009), in other studies it has been found highly relevant, especially due to loss of self-esteem from rejection when buying (Pires, Stanton, & Eckford, 2004).

These different types of risk have varying influences on outcomes such as purchase behaviour. Although some studies show overall risk does not have any impact to purchase intent and frequency (Pires, Stanton, & Eckford, 2004), others show Risk perception to have a key influence on purchase intent (Crespo, Bosque, & Sánchez, 2009). In essence, the risks in e-commerce remain salient (Mou, Shin, & Cohen, 2017).

Chang & Chen (2008) evaluated both trust and risk, and how together they relate to the intention to purchase. The resulting structural equation model indicated that together trust and risk have a great impact on the intention to purchase on a website.

As per figure 2 it can be seen that risk and trust can influence the behavioural intentions of a website visitor. With some benefit to the website visitor, the intention can convert to a purchase (Kim, Ferrin, & Rao, 2008).

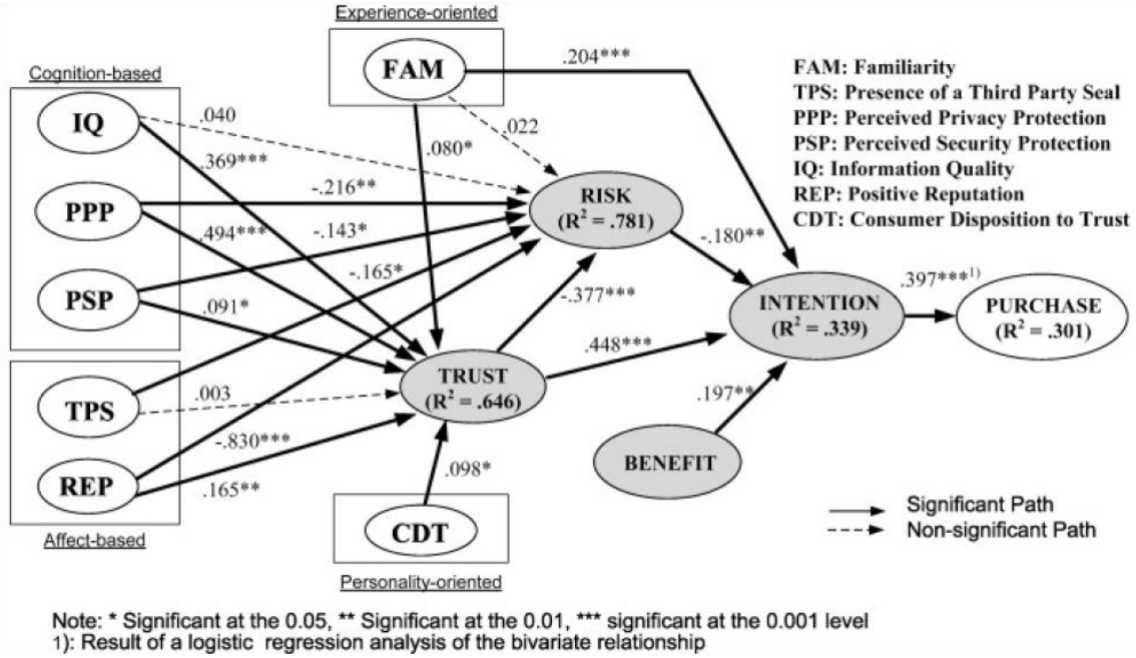


Figure 2: A trust-based consumer decision-making model in e-commerce: The role of Trust, perceived Risk, and their antecedents

2.2.3 Factor Influencing Trust and Risk

Given their importance to e-commerce outcomes and purchase decisions, researchers have turned their attention to examining various factors that might impact trust and risk perceptions.

The work of Kim et al. (2008) depicted in Figure 2 suggests that cognition-based antecedents, affect based antecedents and experience oriented antecedents influence trust and risk perceptions of a website visitor. Trust can also be further influenced by the personality orientation of the website visitor. The study also found out that trust provides a solution to the risk problem in e-commerce in two ways:

1. by decreasing perceived risk and
2. by increasing the intention to purchase directly (trust was the most significant indicator of the online consumer's intention to purchase, followed by perceived benefit and perceived risk respectively).

These findings on the factors influencing trust are consistent with the findings on the work done by Mou and Cohen (2015). They found that with moderators such as population, culture and type of e-service, trust is influenced by cognition based, affect-based, experience based and personality based antecedents.

Examples of cognition based antecedents are information quality, perceived privacy protection and perceived security protection, as seen on figure 2. The cognition-based trust antecedents are associated with consumers' observations and perceptions regarding the features and characteristics of the entity being trusted like information quality from the website pages they are browsing or information from Live Chat agents.

Examples of affect based antecedents are presence of a Third Party Seal (TPS) and positive reputation (REP), as seen on figure 2. The affect-based trust antecedents are related to indirect interactions with the entity being trusted such as inputs from others like referrals from other websites or Customer Reviews.

2.2.4 Signalling in e-commerce

In the literature on uncertainty and information asymmetry, signalling has been introduced where markets suffer to some extent from the problem that vendors have better information than consumers about the value of the product or service being traded leading to only a fraction of the potential trade eventually taking place, and ultimately to Akerlof's Market for Lemons where all high quality products and merchants exit the market (Akerlof, 1970). There is a growing body of work in e-commerce focused on the use of signalling, and how it can overcome problems of uncertainty and Akerlof's Market for Lemons in e-commerce. Uncertainty reduction is achieved by influencing online consumer Trust and Risk perceptions (Mavlanova, Benbunan-Fich, Koufaris, & Lang, 2012). In their study of how signalling and deception interact in online commerce, Mavlanova et al (2012) found that the perceptions associated with specific website signals such as amateurism, content, and physical presence make a big contribution to forming buyer's views of website deceptiveness.

Other researchers found that people were concerned with how their personal information is collected and used through online transactions (Shahibi, Ali, & Zaini, 2014). The study also found that people refused to shop online if their personal information is abused by the internet merchant. The study further found that people did not want their personal information to be sold to other people and bothered by unsolicited/junk email later on. So website seals act as signals that can assure the people visiting the website that their information will not be abused and sold led to more Trust.

Aside from use of third party seals of approval by well-known institutions (Mavlanova, Benbunan-Fich, Koufaris, & Lang, 2012), there are other tools that can serve as signals to influence the processes by which consumers form trustworthiness perceptions during an initial sales encounter with e-commerce businesses (Ceaparu, Demner, Hung, Zhao, & Shneiderman, 2001). These include Customer Reviews (Quaschning, Pandelaere, & Vermeir, 2015), and Live Chat (McLean & Wilson, 2016).

Research indicates that these cues significantly influence a consumer's judgment of a website and the business behind it, as well as its capability (Ceaparu, Demner, Hung, Zhao, & Shneiderman, 2001). These tools influence Trust of both the website and the e-commerce business behind the website (Wood, Boles, & Babin, 2008).

Research also further indicates that the use of Customer Reviews on websites as a signalling tool increases both the usefulness and social presence of the website (Kumar & Benbasat, 2006). Customer Reviews are generally acknowledged as significant features of a business-to-consumer website.

2.3 The Role of Customer Reviews and Live Chat

Figure 3 (on page 32) shows the hypothesized effect of these two website tools on a customer's Risk perceptions and Trust. These are signalling website tools as defined by Mavalanova et al. (2012) in their paper on the 'Effect of Positive and Negative Signals on Perceived Deceptiveness of Websites in Online Markets' (Mavlanova, Benbunan-Fich, Koufaris, & Lang, 2012).

2.3.1 Customer Reviews, Trust and Risk

In addition to their role in signalling, customer reviews can also serve as an affect based trust antecedent. Customer reviews have become increasingly popular website tool where customers who do not have complete information about a product or service usually look at what other customers that purchased the same product or service have to say (Kim & Srivastava, 2007). Reviews are inputs from others in the form of a rating or qualitative comments. Reviews are sometimes referred to as electronic word of mouth (eWOM) (Kim, Maslowska, & Malthouse, 2017). Customer reviews involve putting, as part of a website, emotionally rich, unstructured information, this may include descriptions, images or videos of products uploaded by other customers about a product or service they bought on the website (Kumar & Benbasat, 2006).

Characteristics of reviews can influence their effectiveness. For example, the length and valence of reviews has previously been looked at for effects on purchase decisions (Quaschning, Pandelaere, & Vermeir, 2015). Valence refers to a form of star ratings, which serve as a heuristic cue reflecting the popularity and the quality of a product or service.

Most studies found that positive product reviews have a positive correlation with positive attitudes toward products and increase purchase intention, whereas negative ones have a negative effect to both attitude and purchase intent (Kim, Maslowska, & Malthouse, 2017). Length refers to the number of sentences a

single Review has on a website. The length of a message is an indicator for information quality (Huanga, Chen, Yen, & Tran, A study of factors that contribute to online review helpfulness, 2015), with longer messages expected to give high-quality information on product features and services. Another study found that review length has an inverted-U relationship with purchase probability (Kim, Maslowska, & Malthouse, 2017).

One of the fundamental elements in purchasing e-services online is that the risk perceptions should be as low as possible and trust be easy to transfer from the website to the potential customer viewing the website. Website visitors who have the motivation and ability to read other customer reviews are likely to pay careful attention to other consumers' opinions about an e-service they consider purchasing. This will very likely put them at ease about their decision to buy on a particular e-services website (Walther, Liang, Ganster, Wohn, & Emington, 2012). Also, if the same users perceive the source of the message as coming from a credible source like a previous customer that can be verified, they would tend to want to buy even more (Quaschning, Pandelaere, & Vermeir, 2015). Thus online customer reviews can increase trust through trust transference and reduce risk as an affect-based antecedent, as per Kim et al (2008).

It has also been observed in previous studies that the customer decision process may be influenced more by information from trusted people than from vendors or recommendation systems (Kim & Srivastava, 2007). The studies further showed that the social influence from high quality reviews written by previous customers has a direct, positive effect on potential consumers' decision making, and this effect can propagate through a social network. This propagation through a social network enables increased sales with less marketing efforts, saving e-commerce companies a lot of costs (Kim & Srivastava, 2007).

In other studies it was found that effectiveness of the customer reviews is further increased by allowing customers to post reviews on the websites of the vendors directly without any assistance or rewriting the reviews (Elwalda & Lu,

2016). The study further discovered that the vendor will be seen as trustworthy regardless of whether the reviews are negative or positive (Elwalda & Lu, 2016). The study also found that vendors that make it fun for a customer to record their own reviews on the site and make it fun to have others read the reviews, can improve the effectiveness of the Reviews towards increasing Trust (Elwalda & Lu, 2016).

2.3.2. Live Chats, Trust and Risk

Physical shops usually have service staff that helps customers when they are making a purchase. In most cases when customers purchase online, they go through the process by themselves without any interaction from any service staff (McLean & Wilson, 2016).

Live Chat is a website based synchronous media that allows website visitors to ask for more detailed information regarding the service or product they are interested in buying. Live Chat serves as an online help desk and customer service on the website the visitor is browsing (Turel & Connelly, 2013). In some cases where Live Chat is used, customers usually ask more detailed information regarding the e-service they would like to buy, details like return policy and payment options (Turel & Connelly, 2013). Markus (2016) studied the use of online chat in the context of e-services and found that customer service might contribute to e-service quality. Live Chats may therefore help to increase Trust and reduce Risk through trust transference as a cognition-based antecedent, as per Kim et al (2008).

It has been found in previous research on social presence theory that trust is reduced in the absence of social presence (Lu, Fan, & Zhou, 2016). As a result, the introduction of website tools that support social presence, such as Live Chats, can have positive impacts on the trust customers feel when buying from a website (Lu, Fan, & Zhou, 2016). Another study also found that human warmth or sociability may be installed through actual interactions with other humans or by stimulating the imagination of interacting with other humans, such

as by means of a Live Chat (Hassanein & Head, 2007). The more realistic and in context the conversation with the customer intending to buy on the website, the better the trust levels (Hassanein & Head, 2007).

Despite the practice of including Reviews and Live Chat features in websites, there is little research especially in the South African context that validates the efficacy of these tools. A question remains as to which of the two website tools (Customer Reviews or Live Chats) increases trust the most and reduces risk the most for website visitors. The study's research model and hypotheses aimed at addressing this question are presented next.

2.4 Research Model and Hypotheses

Although it has been investigated that website tools can influence Trust and Risk perception, the literature does not cover these on e-service websites in South Africa, and does not compare between Live Chat and Customer Reviews to find the most effective website tool to use.

So, as depicted in the research model (figure 3), this study addresses its objectives by examining the relative effects of these tools on Trust and Risk perceptions, and incorporates them into a nomological network drawn from Kim et al. (2008).

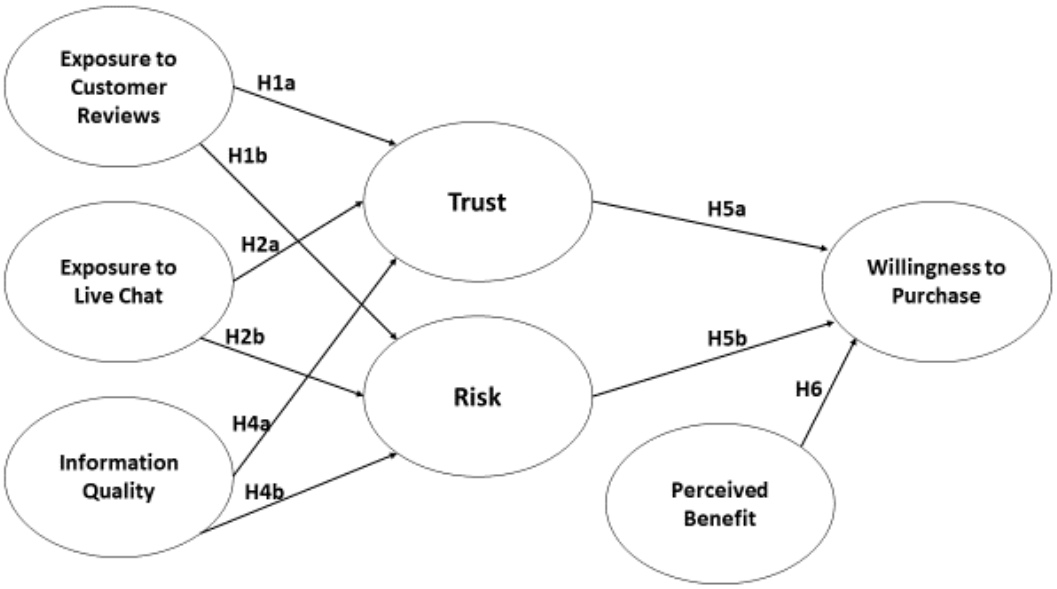


Figure 3: Research Model *

* Arrows in the model denote hypothesized relationships. Note that H3 compares Live Chat and Reviews and is omitted from the diagram to improve readability.

Dependent variable:

The dependent variable for the study is the consumer's willingness to transact with and purchase on the e-services website, e.g. to buy website addresses/domains. The consumer's willingness to purchase is affected by their perception of Benefit, Risk, and Trust toward the e-services website (Kim, Ferrin, & Rao, 2008). Willingness to purchase is reflected in the consumer's willingness to provide their personal information and credit card numbers to the site for the purposes of transacting. Willingness or intention to purchase is considered a prerequisite to subsequent actual purchase behaviour, as per theories such as theory of reasoned action (Fishbein & Ajzen, 1975).

The website being examined is an e-services website that is selling website address/domain registration services, website address management services, website hosting services and website design services.

As per Figure 3, willingness to purchase is directly influenced by Trust, Risk and Benefits perceptions, and indirectly by Customer Reviews and Live Chat tools. The model's hypotheses are developed next.

H1: The influence of Customer Reviews on Trust and Risk

Website visitors who have the motivation and ability to read other Customer Reviews are likely to pay careful attention to other consumers' opinions about an e-service they consider purchasing. This will very likely put them at ease about their decision to buy on this particular e-services website (Walther, Liang, Ganster, Wohn, & Emington, 2012). Also, if the same users perceive the source of the message as coming from a credible source (like a previous customer that can be verified) then they may tend to want to buy even more (Quaschning, Pandelaere, & Vermeir, 2015).

This is important because it provides information that the website has honoured or met its obligations toward other customers in the past. Customer Reviews are a social process dependent on past interactions (the degree of honesty that the website has demonstrated in previous transactions) between consumers and the website (Kim, Maslowska, & Malthouse, 2017). Based on positive Customer Reviews, a potential customer is likely to infer that the website is likely to continue its behaviour in the present transaction, and therefore conclude that the website is trustworthy (Kim, Ferrin, & Rao, 2008).

In the case of negative Customer Reviews, a potential customer may conclude that the website will not honour its specific obligations, and hence conclude that it is untrustworthy (Kim, Ferrin, & Rao, 2008). Respectively, potential customers

are likely to conclude that it is inherently risky to transact on a website that has a history of failing to honour its obligations, whereas it is relatively less risky to transact on a website that has a history of honouring its obligations (Kim, Ferrin, & Rao, 2008).

Past work shows customers can be influenced by the opinions of others, such as past customers who are trusted (Kim & Srivastava, 2007), and that vendors who include Reviews on their website are seen as more trustworthy (Elwalda & Lu, 2016).

These arguments should also apply to a website that sells e-services. E-services include e-commerce services for processing online orders, application hosting by application service providers (ASPs) and any service rendering capability that is obtainable on the Web (Kvasnicova, Kremenovaa, & Fabusa, 2016). In this study, the e-services website will be that of an application hosting service provider. The type of website studied here is that of an e-services website that enables website visitors to purchase services and have the services delivered to the consumer through the internet (Kvasnicova, Kremenovaa, & Fabusa, 2016).

Therefore:

- **H1a:** Consumers exposed to positive Customer Reviews on a website will have greater trust than consumers not exposed to Customer Reviews
- **H1b:** Consumers exposed to positive Customer Reviews on a website will have lower levels of Risk perceptions than consumers not exposed to Customer Reviews

H2: The influence of Live Chat on Trust and Risk

It has been found in previous research on social presence theory that the absence of social presence reduced trust (Lu, Fan, & Zhou, 2016). As result introduction of social presence factors like Live Chats on websites can have

positive impacts on the trust customers feel when buying from a website (Lu, Fan, & Zhou, 2016).

Physical shops usually have service staff that helps customers when they are making a purchase. In most cases when customers purchase online, they go through the process by themselves without any interaction from any service staff (McLean & Wilson, 2016). In some cases where Live Chat is used, customers usually ask more detailed information regarding the e-service that they would like to buy such as on return policy and payment options (Turel & Connelly, 2013). Markus (2016) studied the use of online chat in the context of e-services and found that customer service might contribute to perceptions of e-service quality. Another study found that online customer support is required via Live Chat when the website characteristics are poor, or when the customer is required to spend longer than perceived necessary and when the customer does not have a successful search (McLean & Wilson, 2016).

- **H2a:** Consumers exposed to Live Chat tool on a website will have greater Trust than consumers not exposed to Live Chat tool
- **H2b:** Consumers exposed to Live Chat tool on a website will have lower levels of Risk perceptions than consumers not exposed to Live Chat tool

H3: The relative influence of Live Chat versus Customer Reviews on Trust and Risk

Customer Reviews are considered to influence trust and risk through signalling (Mavlanova, Benbunan-Fich, Koufaris, & Lang, 2012; Kim, Maslowska, & Malthouse, 2017), among other factors. From this perspective, the presence of Reviews were hypothesized in H1 to lead to increased consumer trust and lowered risk perceptions.

Live Chats are considered to influence trust and risk through the theory of social presence (Lu, Fan, & Zhou, 2016), and as a cognition-based trust antecedent can help increase trust and reduce risk through trust transference (Kim, Ferrin,

& Rao, 2008). Thus it was hypothesized in H2 above to increase trust and lower a consumer's risk perceptions.

However, there has been little research that compares the relative effects of Customer Reviews versus Live Chat tools in the formation of trust and risk perceptions. Consequently, the question as to whether it is better to build trust and lower risks through social presence, achieved from Live Chats, versus through signalling, via Customer Reviews, remains unclear. To address this, two alternate hypotheses are therefore stated.

- **H3a:** Customer Reviews will be more effective than Live Chat tools in influencing Trust and Risk perceptions of e-services website visitors.
- **H3b:** Live Chat tools will be more effective than Customer Reviews in influencing Trust and Risk perceptions of e-services website visitors.

H4: The influence of Information Quality on Trust and Risk

Kim et al. (2008) introduced information quality as a cognitive antecedent of Trust and Risk in e-commerce. Information varies quite a lot in quality from one website to another, going from highly accurate and reliable to totally inaccurate and unreliable, to intentionally misleading. As a result, potential customers on the internet are more likely to be attentive to the quality of information they consume from a website because it is the quality of the information they will help them make good purchasing decisions (Kim, Ferrin, & Rao, 2008). Gathering and processing high quality information are indispensable tasks for decision making. Consumers might consider information quality as whether the website is interested in staying up to date with what is happening in the industry, is knowledgeable on the e-services offered, and therefore will be more inclined, and in a better position to fulfil its obligations. The potential customers will therefore be more likely to have confidence that the website is reliable and perceive the website as trustworthy. On the other hand, if a website's information is judged poorly, e.g. missing relevant information or information

that is difficult to find or understand, then consumers will face increased uncertainty. Uncertainty and information asymmetry on online settings will reduce consumer willingness to pay (Akerlof, 1970). Consequently, high quality information (accurate, current and relevant) assists in reducing consumer uncertainty, increasing Trust and reducing the perceived Risk in transacting on the website (Kim, Ferrin, & Rao, 2008). Therefore,

- **H4a:** Perceived information quality will increase consumer Trust
- **H4b:** Perceived information quality will decrease consumer Risk

H5: The influence of Trust and Risk on Willingness to Purchase

Within the e-commerce literature, trust has been linked to behavioural intent. For example, in their research on online shopping, Bart et al. (2005) found a strong correlation between trust and behavioural intent. Behavioural intent included willingness to continue clicking on a website, abandoning versus returning to the website, sending emails, downloading files, and ordering from the website. This effect of trust on behavioural intent was found to be strongest for websites with infrequently purchased, high-involvement items, and weakest for websites oriented toward frequent transactions (Bart, Shankar, Sultan, & Urban, 2005). It is reasonably intuitive that trust becomes more important to consumer behaviour as uncertainty increases.

Other studies also find a strong positive correlation between continuance intention and trust (Liao, Palvia, & Lin, 2006), while others found an increase in trust increased purchase volume (Comegys, Hannula, & Väisänen, 2009).

Taken together, the above literature supports the relevance of trust to consumer online behaviour. Higher levels of trust are associated with increased purchase intentions, purchase volumes and continuance intentions, among other behaviours. Therefore,

- **H5a:** Trust increases consumer willingness to purchase from the e-services website

Moreover, online transactions are associated with potential uncertain negative outcomes (Kim et al., 2007). This is due to the temporal and physical distance between providers and service customers. As a result, risk perceptions are also salient in consumer online decision making (Mou, Shin, & Cohen, 2017). Prior work has shown risk perceptions, in addition to trust, have a key influence on purchase intent (Crespo, Bosque, & Sánchez, 2009). Therefore, it is further hypothesized that:

- **H5b:** Risk reduces consumer willingness to purchase from the e-services website

H6: The influence of Perceived Benefits on Willingness to Purchase

Finally, Kim et al. (2008) indicate that perceptions of benefits are important additional determinants of consumer intentions. Benefits are defined as usefulness, convenience or monetary savings that the consumer can potentially derive from the e-service. Benefits are thus considered strong determinants of consumer's e-commerce transaction decision, therefore:

- **H6:** Perceived benefits will increase consumer willingness to purchase from the e-services website

Controls

The model will also control for age, gender, online shopping experience, and education. Past work has suggested these as relevant controls in the on-line customer context (Ceaparu, Demner, Hung, Zhao, & Shneiderman, 2001).

Moreover, because familiarity with a vendor was found important in past works as influencing trust perceptions (Thatcher, Carter, Li, & Rong, 2013), a

methodological control will also ensure that only individuals with no prior knowledge of the e-service provider will be included in the analysis.

2.5 Conclusion of Literature Review

This chapter reviewed prior literature into trust and risk in e-commerce. Drawing on the work done by Kim et al (2008), the chapter developed a research model to explore how Customer Reviews and Live Chat website signalling tools can influence trust and risk perceptions.

Based on past literature, this study attempts to establish which website tool is more effective in transferring trust to website visitors on the website of an e-services provider and at the same time reduce risk perceptions. Although some past studies considered these website tools separately, this study compares the two. In addition, the effects of information quality on trust and risk was hypothesized, along with the consequent effects of trust, risk and benefits for purchase intention. Figure 3 summarises the research model.

The next chapter describes the research methodology that will be used to test the research model and hypotheses.

CHAPTER 3. RESEARCH METHODOLOGY

3.1 Introduction

The study is designed to determine which one of the two website tools (Live Chat or Customer Reviews) is more effective in reducing Risk perceptions and increasing Trust among online consumers, with consequent implications for using the website again and possibly purchasing in the near future.

To address the research objectives and test the research model presented in the previous chapter, this study will use a quasi-experimental research design with a survey. This chapter discusses the research approach and design, and the research methods in greater detail.

3.2 Research philosophy

Because the study seeks to find out which of the two is statistically significant and has a larger effect in establishing Trust and reducing Risk perceptions in the eyes of the South African consumer online, this research is informed by a positivist philosophy. Moreover, it will follow an experimental design combined with a quantitative research approach. A positivist research philosophy is one in which relies on correlations between variables to identify factual irregularities, work out the relationship between cause and effect, test theories, and increase our understanding of phenomena and how to better predict effects based on causes (Orlikowski & Baroudi, 1991). Positivist philosophy is generally associated with quantitative research, it assumes a single external reality, it is objective, value free and the researcher's role is one of impartial observer (Khazanchi & Munkvold, 2003).

This can be contrasted with an interpretivist philosophy that aims to understand the intersubjective meaning found in social life (Orlikowski & Baroudi, 1991). This philosophy aims to explain why people tend to act the way they act in their

social setting (Orlikowski & Baroudi, 1991). Interpretivist philosophy is often associated with qualitative studies, focuses on internal complex realities that are subjective with multiple meanings (Orlikowski & Baroudi, 1991). The role of the researcher is interactive (Khazanchi & Munkvold, 2003).

Because this study aims to establish correlations between website tools and Trust and Risk perception variables to test hypotheses about the effects of website tools on intention to purchase, it has been informed by a positivist perspective.

Furthermore, the study adopts a quantitative approach. Quantitative research accommodates experimental designs, non-experimental designs like surveys and analytics (Khazanchi & Munkvold, 2003). Quantitative research gathers data in a numerical form that can be put into categories or can be ranked, and measured in units of measurements, this approach allows construction of graphs and tables of raw data (Carr, 1994). By adopting a quantitative approach with a positivistic philosophy, this study will be able to examine relationship between independent and dependent variables. Quantitative data will be collected using questionnaire survey administered to participants participating in the experimental design and exposed to one of the treatments (see Table 2) on the e-services website.

3.3 Research design

Different research designs in quantitative studies include experimental designs, survey designs, and analytical studies (Khazanchi & Munkvold, 2003). Analytical approach is appropriate for secondary data. For this study, a variant of an experimental design is most appropriate as it allows for the manipulation of a treatment (presence or absence of website tools) and with the collection and analysis of primary data.

More specifically, a quasi-experimental design is adopted for the purpose of this study. A true experimental design requires both random selection from the

population and random assignment to a treatment (Bhattacherjee, 2012). A quasi-experiment is one in which randomisation is not entirely possible (Bhattacherjee, 2012). Experimental studies can also be carried out in lab or field settings (Bhattacherjee, 2012). This study will be carried out in the field as participants will not be isolated to a laboratory environment and can participate in their own environment. Moreover, the quasi-experimental research design can incorporate the administration of a survey questionnaire as a data collection tool. However, unlike a survey design, the respondents are being exposed to various treatments.

The quasi experiment is designed to determine which website tool is more effective in inducing Trust and reducing Risk perception among a convenience sample of South African online consumers and influencing their willingness to purchase from an e-services provider.

3.4 Experimental design

This study adapted the approach of Ceaparu et al. (2001) and Martin et al. (2020) where they carried out a quasi-experimental design on website users. Specifically, the experiment involved:

(1) the determination of four sub-samples (Group A, B, C and D) used for random assignment of participants to one of four possible website versions (see Table 2),
(2) the distribution of invitations via email to each group to participate in the study,
(3) a short email description on the email body and on the first page of the survey framing the situation to participants to inform their interaction with the website before they fill in their demographic information,
(4) an experimental instruction to browse and evaluate the e-services website, and finally the completion of a questionnaire about the participants' perceptions of the website in terms of Trust, Risk,

Information Quality, Benefits and Willingness to Purchase, along with treatment check variables and controls.

(5) after a week of keeping the survey open to Group A, it was closed and the experiment repeated for Group B with the altered website version for a week, then Group C with their website version for a week, and finally Group D with their website version for a week.

Table 2: Experimental procedure

		Website versions			
		Version 0: Base Website (Without Reviews, and Without Live Chat) - Control group	Version 1: Base Website + Live Chat and Without Customer Reviews - Treatment 1	Version 2: Base Website + Customer Reviews and Without Live Chat - Treatment 2	Version 3: Base Website + Live Chat and Customer Reviews - Treatment 3
Participant Groups	Group **A**	x			
	Group **B**		x		
	Group **C**			x	
	Group **D**				X

The study focuses on two independent variables: Live Chat and Reviews. An existing website was rebuilt and upgraded onto a new primary website address (from SiveHost.com to Sive.Host), which had never been used before the experiment for selling intangible products and services. The link to the website was sent to a group of participants (Group A) who reviewed the website and

then answered the structured questions in the survey. This website without any Live Chat or Reviews was used as a control and referred to as Version 0.

Group B was exposed to the website without the Reviews but with a Live Chat feature (Version 1), and were invited to participate and then answer the structured questions similar to those of Group A with questions on attitude towards Live Chat and a treatment check question to verify the participants saw the Live Chat feature.

Then a Customer Reviews version of the website (Version 2) was developed, and sent to another independent group (Group C) with the invitation to browse the website and answer the same set of structured questions as Group A with questions on attitude towards Customer Reviews and a treatment check question to verify the participants saw the Customer Reviews.

Group D was exposed to a website version with both Live Chat and Customer Reviews, with the same survey questions along with attitudes towards both Live Chat and Customer Reviews, and a treatment check question to verify the participants saw both the Live Chat and Customer Review feature.

Each group thus reviewed a different version of the website. This allowed for comparison of the groups to determine which tool more strongly influenced Trust and Risk, leading to willingness to use and purchase on the website.

Figure 4 illustrates the Live Chat feature that was added to website Version 1, with the octagons showing the different states in numbers. When users arrive on the website, it is in state 1, when they click on the state 1, then it shows state 2 about information protection, if they click no not now then it goes back to state 1, and when they click Yes I accept then state 3 is activated where they can chat with the Sive.Host support team in the backend, and state 4 is seen if the chat is closed and then the user comes back to the website at a later stage.

The Live Chat agents used during the study were well trained, and had been with the vendor (Sive.Host) on average for 5 years or more. This was to avoid a

confound effect if participants received delayed or poor quality responses (Mclean & Osei-Frimpong, 2017).

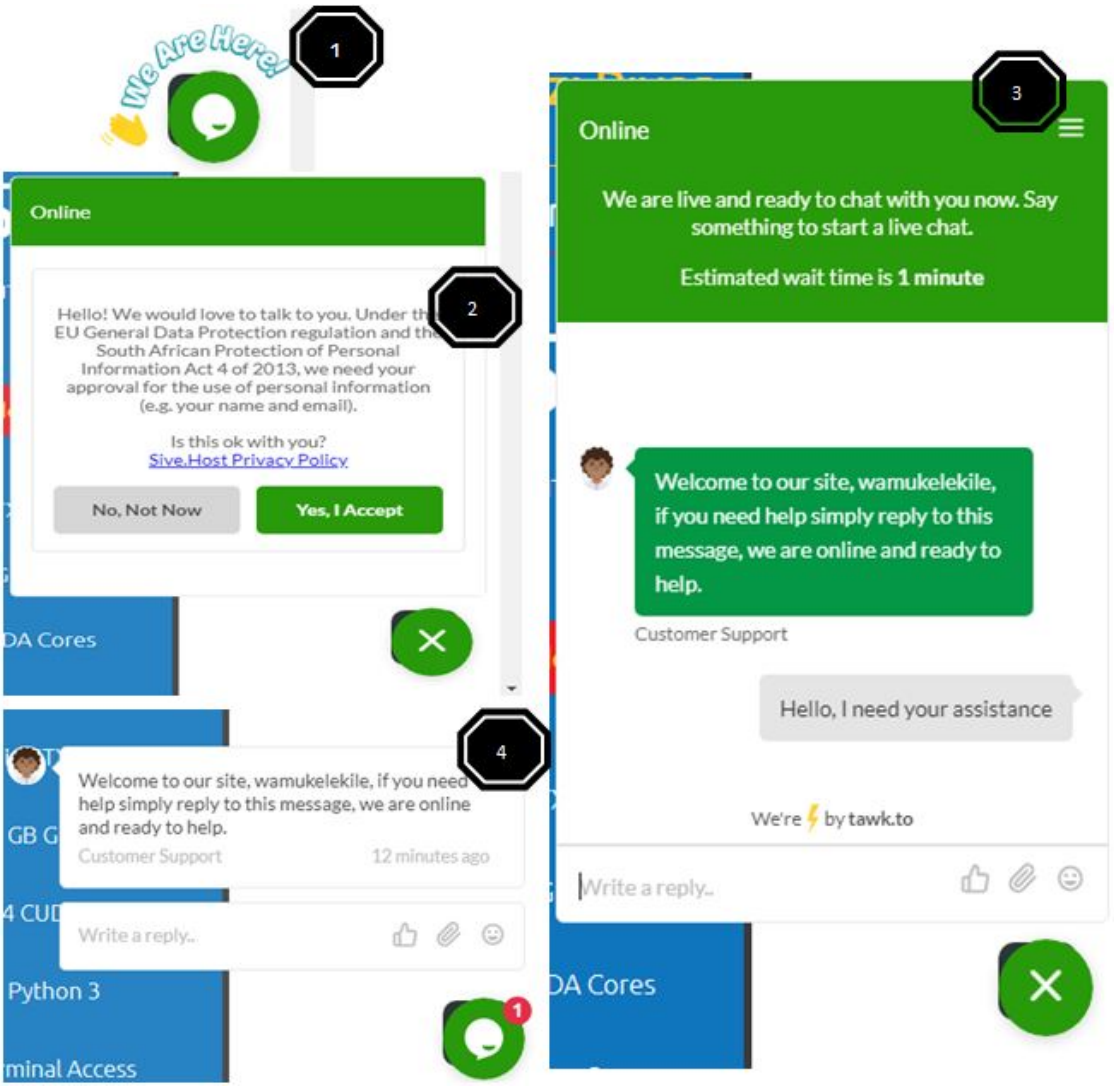


Figure 4: Live Chat on website

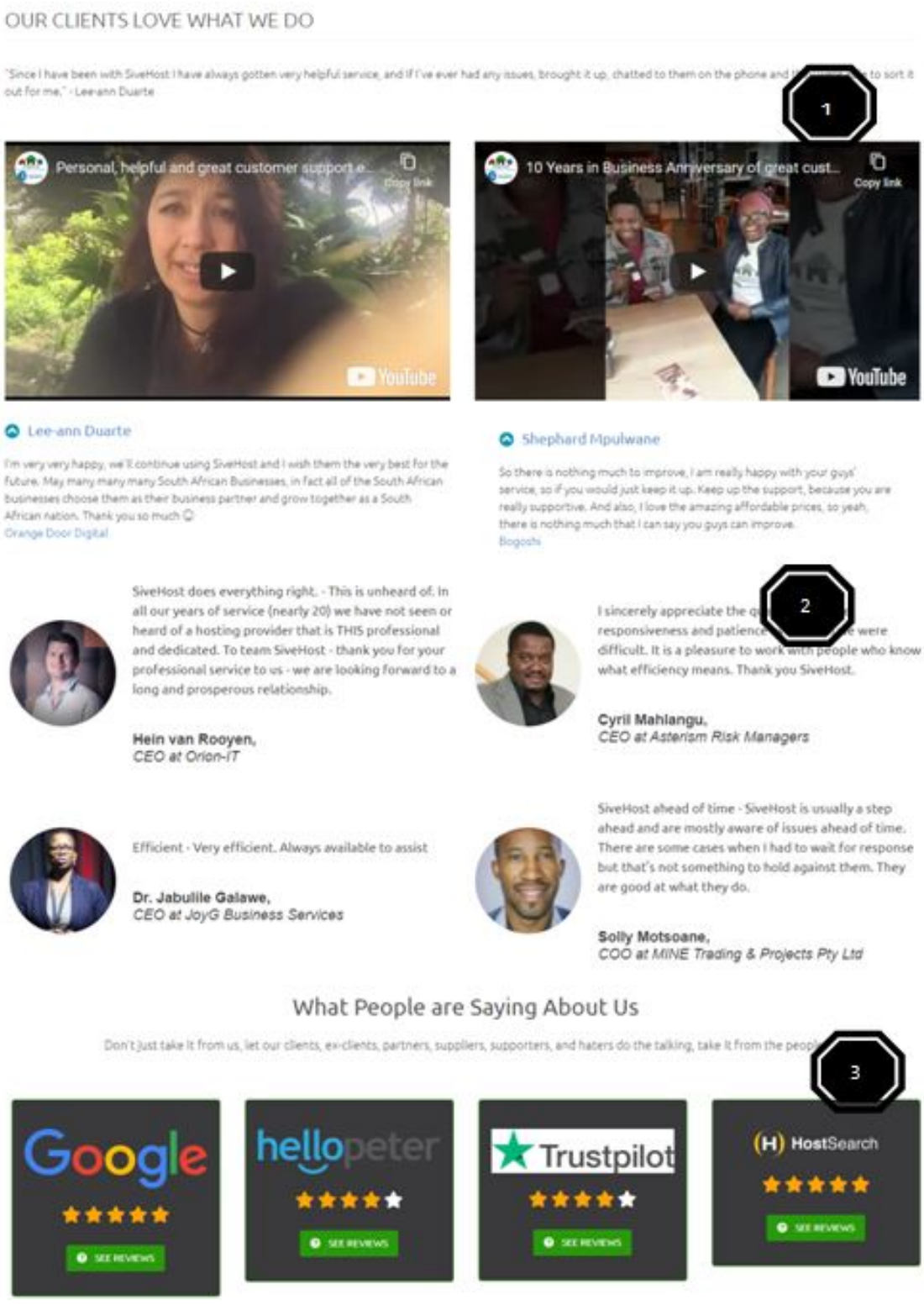


Figure 5: Customer Reviews on Website

Figure 5 illustrates the Customer Reviews feature that was added to website Version 2. The Reviews were shown as video and text as per octagon 1 in figure 5, and also as pictures and text as octagon 2, and as text and rating with links to rating sites on octagon 3. Thus the Customer Reviews treatment was a combined treatment inclusive of videos, text and ratings at the same time. On all octagons, the text was kept minimal in line with prior recommendations (Kim, Maslowska, & Malthouse, 2017).

The different website versions were presented to the participants in the four different groups, and part of the instructions was that the survey only be taken during week days. The first group invited was the control group (Group A), which had no treatments implemented and was open for participation for a one (1) week period before their survey link closed. Thereafter, the Live Chat treatment was added to the site and participants from Group B were invited. Similarly, participation of Group B was open for a one (1) week period before their survey link closed. Thereafter, the Live Chat treatment was removed and the Customer Reviews treatment added. Group C participants were invited. Similarly, participation of Group B was open for a one (1) week period before their survey link closed. Finally group D, were exposed to both Live Chat and Customer Reviews, and had a similar period of one (1) week to participate and respond to the survey.

All participants were allowed to visit and re-visit every page on the website and answer their surveys for as long as their survey links were still active during the week of the respective website version. Subjects were not timed during their participation but their survey links had a validity period of 1 week, after which it was no longer accessible.

3.5 The research instrument

The data collection instrument for the study was a structured questionnaire.

The study's independent variable is the treatment exposure, and respondents were asked on the questionnaire to indicate their Risk perceptions, Trust levels, perceptions of website Information Quality and whether they saw a Benefit in the e-service offered by the website. The three dependent variables are Trust, Risk perception and Willingness to Purchase. All variables will be measured using multi-item scales ranging from 1 (Strongly disagree) to 7 (strongly agree). Following, Adam et al. (2020), respondents were asked to confirm their awareness of the manipulation (presence of Live Chat or Customer Reviews) (Adam, Niehage, Lins, Benlian, & Sunyaev, 2020). Questions on the controls were also included. Table 5 lists the measures.

The research instrument had 16 categories and a total of 48 questions. All variables except Demographics, awareness of manipulation, intention to start a business, awareness of vendor, and rating overall Risk perception were measured on a 7-point likert scale from 0 (Strongly Disagree) to 6 (Strongly Agree). Participants indicated their overall Risk perception from 0 (Very Low Risk) to 6 (Very High Risk).

The survey instructions and questions, along with literature support where relevant, are presented across Figures 6 to 8 and Tables 3 and 4.

Instruction 1 As a professional, you have been randomly selected and invited to participate in this study at the University of Witwatersrand, Johannesburg.

We are investigating the effects of selected website tools on consumer Trust and Risk perceptions in e-commerce.

The survey will take approximately 15 minutes to complete, and your participation will be highly appreciated. Participation involves browsing a website and then completing a short, structured questionnaire. All responses are completely anonymous, and none of the results can be tracked back to any individuals or business. All data collected is strictly confidential and will only be used for the purposes of academia, and not sold for profit.

Survey should only be taken during weekdays.

Figure 6: Survey instruction 1 presented to respondents.

Demographic data was collected on age, using the following scale: 18-24; 25-34 ; 35-44; 45-54; 55-64; 65 or older; Prefer not to say.

Highest level of school you have completed on a scale: some high school; high school matric; post-matric certificate or diploma; bachelors degree; professional degree e.g. medicine, law; postgraduate degree e.g. Honours or Masters; No formal education; prefer not to say.

Gender data was collected as Male; Female; Transgender; Prefer to self-identify; Prefer not to say.

Employment status was measured as Full-time student; Full-time employee; Part-time employee; Self-employed; Not currently working or studying; Prefer not to say.

Business 1. Have you ever started a business before or thinking of starting one in the near future? Yes; No; Maybe; Prefer not to say

e-commerce 1. I am familiar with the process of purchasing products or services on the internet. on a scale from 0 (Strongly Disagree) to 6 (Strongly Agree)

Figure 7: Description of demographic data collected.

Instruction 2 Please consider the following scenario: You are in the position of a small business owner looking to purchase a website address (URL/Domain) and host your website so that your customers can know about you and your business through the internet. You come across the services of Sive.Host. Please visit the website of Sive.Host by clicking the following URL: https://Sive.Host The Sive.Host website will open in a new browser window. Please spend a few minutes browsing the home page of the service provider's website and then return to answer the short survey. Please do not close this browser window. Once you have browsed the site, please click the next arrow below to continue with the survey. **Instruction 3** Based on your perceptions of the Sive.Host website, please answer each of the following questions by selecting the option that most closely reflects your agreement with the following statements.

Figure 8: Survey instruction 2 and instruction 3 presented to respondents

Table 3: Questionnaire table *

Questionnaire Item **Trust ("the willingness of a consumer to be vulnerable to the actions of an internet merchant in an internet transaction, based on the expectation that the internet merchant will behave in certain agreeable ways, irrespective of the ability of the consumers to monitor or control that internet merchant" (Lee & Turban, 2001).)**	**Literature source**
1. This Website gives the impression that it keeps promises and commitments.	(Kim, Ferrin, & Rao, 2008) p 23
2 This Website would keep its commitments to its customers.	(Kim, Ferrin, & Rao,

	2008) p 23
3 I believe that this Website has my best interests in mind.	(Kim, Ferrin, & Rao, 2008) p 23
4 If I required help, the Website would probably do its best to help me.	Self-developed based on variable definitions
5 This website is trustworthy.	Self-developed based on variable definitions
6 Overall, the Website appears as a capable and proficient online service provider.	Self-developed based on variable definitions
7 This Website gives the impression it is competent and effective in providing online services.	Self-developed based on variable definitions
Risk (the consumer's belief about the potential uncertain negative outcomes associated with the internet transaction (Kim et al., 2007).)	
1 How would you rate your overall perception of transaction risk from this site?	(Kim, Ferrin, & Rao, 2008) p 23
2 It is likely that products or services purchased on the Website would fail to meet performance expectations.	(Kim, Ferrin, & Rao, 2008) p 23
3. It is likely that transacting on this Website will cause one to suffer a financial loss.	(Kim, Ferrin, & Rao, 2008) p 23
4 It is likely that the Website will fail to deliver the services promised.	Self-developed based on variable definitions
5 It is likely that the Website will fail to protect the privacy of the personal information shared with it.	Self-developed based on variable definitions
6 It is likely that transacting on this Website would not be secure	Self-developed based on variable definitions
Benefits (usefulness, convenience or monetary savings that the consumer can potentially derive from the e-service. Kim et al., 2008)	
1 I think using this Website is a convenient way to obtain website addresses and website hosting packages.	(Kim, Ferrin, & Rao, 2008) p 23
2 I believe I can save money by using this Website.	(Kim, Ferrin, & Rao, 2008) p 23

3 I can save time by using this Website to obtain website addresses and website hosting packages.	(Kim, Ferrin, & Rao, 2008) p 23
4 Using this Website allows me to find website address and website hosting packages information quickly.	(Kim, Ferrin, & Rao, 2008) p 23
5. I think this Website offers me a wide range of website addresses and website hosting packages.	(Kim, Ferrin, & Rao, 2008) p 23
Willingness to purchase (the consumer's willingness to transact with and purchase on the e-services website)	
1 I would be willing to enter my credit card information if I was purchasing a website address or website package on the Website.	(Kim, Ferrin, & Rao, 2008) p 23
2 I would recommend this Website to a friend/colleague.	(Kim, Ferrin, & Rao, 2008) p 23
3 If I required a website address or website hosting package, I would be willing to actually use this Website.	(Kim, Ferrin, & Rao, 2008) p 23
Information quality (quality of information provided on the website as being accurate, current and relevant)	
1 Overall, I think this Website provides useful information.	(Kim, Ferrin, & Rao, 2008) p 23
2 The information provided by this Website seems up to date.	(Kim, Ferrin, & Rao, 2008) p 23
3 This Website provides sufficient information about its services.	(Kim, Ferrin, & Rao, 2008) p 22
4 I am satisfied with the information that this Website provides.	(Kim, Ferrin, & Rao, 2008) p 22
5 Overall, the information this Website provides is of high quality	(Kim, Ferrin, & Rao, 2008) p 22

* All items measured on a scale from 0=Strongly Disagree; 1=Disagree; 2=Somewhat Disagree; 3=Neutral; 4=Somewhat Agree; 5=Agree; 6= Strongly Agree

Table 4: Manipulation and Treatment Checks

	Questionnaire item	Coding	Source
Experience/familiarity	Prior to taking the survey, were you familiar with this Website vendor.	1. Yes 2. No 3. I am not sure	Self-developed
Awareness of manipulation (Live Chat)	1. A Live Chat feature on this Website was present	1. Yes 2. No 3. I am not sure	Self-developed
	2. A Live Chat feature was shown as a speech bubble on the:	• Bottom left of the screen • Bottom middle of the screen • Bottom right of the screen • There was no Live Chat feature • I am not sure	Self-developed
Attitude to Live Chat (control variable)	1. I prefer to buy from Websites that have a Live Chat feature.	0=Strongly Disagree to 6=Strongly Agree	(Kim, Ferrin, & Rao, 2008) p 22
	2. Live Chat features make me feel more comfortable when transacting online.	0=Strongly Disagree to 6=Strongly Agree	(Kim, Ferrin, & Rao, 2008) p 22
	3. Using a Live Chat feature makes me	0=Strongly Disagree to	(Kim, Ferrin, & Rao, 2008) p 22

	feel less uncertain when transacting online.	6=Strongly Agree	
	4. Live Chat features make me feel safer in terms of the online transaction.	0=Strongly Disagree to 6=Strongly Agree	(Kim, Ferrin, & Rao, 2008) p 22
Awareness of manipulation (Customer Reviews)	1 Customer Reviews on this Website were present.	1. Yes 2. No 3. I am not sure	Self-developed
	2 Customer Reviews on this Website were depicted using:	• Text only • Text and images • Text and images/video • There were no Customer Reviews • I am not sure	Self-developed
Attitude to Customer Reviews (control variable)	1 I prefer to buy from Websites that show Customer Reviews. 2 Customer Reviews make me feel more comfortable when transacting online.	0=Strongly Disagree to 6=Strongly Agree	(Kim, Ferrin, & Rao, 2008) p 22
	3 Reading Customer Reviews makes me feel less uncertain when transacting online.	0=Strongly Disagree to 6=Strongly Agree	(Kim, Ferrin, & Rao, 2008) p 22

[redacted]			
	4 Customer Reviews make me feel safer in terms of the online transaction.	0=Strongly Disagree to 6=Strongly Agree	(Kim, Ferrin, & Rao, 2008) p 22

Table 5: Summary of the instructions, variables and questions presented to each treatment group

Group A	Group B	Group C	Group D
No Customer Reviews, No Live Chat	*Live Chat, no Customer Reviews*	*Customer Reviews, no Live Chat*	*Both Customer Reviews and Live Chat*
Instruction 1	*Instruction 1*	*Instruction 1*	*Instruction 1*
Demographics	Demographics	Demographics	Demographics
Instruction 2	*Instruction 2*	*Instruction 2*	*Instruction 2*
Instruction 3	*Instruction 3*	*Instruction 3*	*Instruction 3*
Trust	Trust	Trust	Trust
Risk	Risk	Risk	Risk
Benefits	Benefits	Benefits	Benefits
Information Quality	Information Quality	Information Quality	Information Quality
Willingness to Purchase	Willingness to Purchase	Willingness to Purchase	Willingness to Purchase
Experience/familiarity	Experience/familiarity	Experience/familiarity	Experience/familiarity
[redacted]	[redacted]	Attitude to Customer Reviews	Attitude to Customer Reviews
[redacted]	Attitude to Live Chats	[redacted]	Attitude to Live Chats
[redacted]	Awareness of manipulation (Live Chat)	[redacted]	Awareness of manipulation (Live Chat)
[redacted]	[redacted]	Awareness of manipulation (Customer Reviews)	Awareness of manipulation (Customer Reviews)

Pre-testing was performed to support content validity. After preparing the survey on Qualtrics, it was sent to a convenience sample of individuals with considerable research experience in ecommerce and information systems to review whether the content of the instrument and the flow of questions and/or statements in the survey questionnaire made sense and was in line with the study's objectives and research model.

During the pre-test it was determined that racial group was unnecessary as part of the demographics, and was thus removed. The pre-test also recommended minor adjustments to the instructions to improve clarity. This was achieved incrementally. The pre-test also recommended standardising on a 7 point Likert scale to ensure the questionnaire was more user friendly.

Pilot testing was then performed to support face validity of the instrument from a respondent perspective prior to the main survey. The pilot testing was performed on version 1 of the website and on version 2 of the website. On both versions it was sent to a convenience sample of 50 participants. On version 1 it was found out that 8 of the participants could not see the Live Chat feature, after further investigation it was discovered that 8 of the participants were behind a proxy network that blocked the Live Chat feature from popping up on the screen. This helped anticipate the number of responses. On version 2 it was found out that some of the participants could not see the video testimonials, instead they saw blocked content. Upon further investigation it was discovered that these participants were also behind a proxy network that blocked Youtube.com videos and Facebook.com comments. This also helped anticipate the number of responses.

Based on responses, no other adjustments to the instruments were required after pilot testing.

3.6 Population and sample

Sampling is defined as a way that enables researchers to infer information about a population based on results from a subset of the population, without having to evaluate each and every individual in the population (Taherdoost, 2016). There are two broad sampling strategies, namely probability and non-probability based sampling (Taherdoost, 2016). Probability sampling starts with a complete sampling frame of all eligible participants from which one selects a random sample where all eligible participants have a chance of being chosen for the sample. This ensures the researcher is more able to generalise the results from the study. Non-probability sampling cannot be generalised as one does not start with a complete sampling frame and not all participants have an equal chance of being chosen (Taherdoost, 2016).

The population of interest for this study was customers of online e-service providers. Because a sampling frame of the broad population of e-service customers is not readily available, the overall sampling strategy used for this study was a non-probability sampling strategy, although randomization into treatment groups was implemented. More specifically, postgraduate students at Wits University and participants from a corporate in South Africa were selected as the study's non-probability convenience sample. This sampling method introduces bias as the participants are not representative of all target customers of e-services. However, the use of such a sampling strategy is not atypical of experimental studies of this nature. For example, Kumar and Benbasat (2006) used undergraduate and postgraduate students from a Canadian university in their quasi-experiment on website design. Moreover, the approach allowed for the researcher to control the random allocation of participants to treatment groups.

The sample of postgraduate students was obtained by requesting a list of all postgraduate programmes at the University of Witwatersrand, Johannesburg. Each postgraduate programme was then randomly assigned to one of the four treatment groups. To ensure treatment groups would be of similar size, random

assignment was achieved by sorting the list according to the total number of students enrolled in each programme. Then each programmes was assigned starting with the group with the largest number of students assigned to group A, the second largest programme to group B, the third largest programme to group C, the fourth largest programme to group D and then the fifth largest programme to group A again, and so on, until the programmes had all been assigned and each group had an equal number of students. Some of the smaller programs were not included, which allowed the number of students to be exactly the same per group with each group having 3101 students.

The sample of corporate participants was obtained from its software engineering department. The corporate is a multinational with large industrial, manufacturing, and other facilities located across in over 12 countries and 6 continents with over a total of 2 000 employees in South Africa and over 133 000 globally. The software engineering department in South Africa had 856 people in total. The list of employees were ordered into alphabetical order. The employees were assigned in groups of 200 to the treatment groups such that the first 200 went onto group A, the next 200 people went into group B, then the next went to group C and the last 200 went to group D. Not all the employees were assigned to Group A, B, C or D to ensure the groups remained equal in terms of number of people assigned.

Chi-Square tests were used to verify the random allocations and that treatment groups did not differ on key demographic characteristics.

The justification for selection of this sampling strategy was that the participant would:

- know how to operate a computer
- know how to fill in a survey and submit it
- read instructions on email carefully
- have uninterrupted 15 minutes at maximum to participate

- answer based on their perceptions after browsing through the given website as instructed
- have internet connected devices that will render the given website pages correctly
- be familiar with using online services and with the process of purchasing from online providers (also confirmed through filter questions)

Group assignment was random to ensure at least 60 participants in the experimental groups who would answer the survey and complete it. Recent similar studies (Adam, Niehage, Lins, Benlian, & Sunyaev, 2020) confirm that about 60 participants is a good number of participants per group. Each group will review a different treatment of the website (refer section 3.3).

3.7 Procedure for data collection

Invitations were sent out after obtaining the necessary company and academic institution approvals and ethics clearance (refer Appendix C). HR and other relevant managers were approached and asked to send invitations to potential participate in the study by email through their respective internal emailing systems. The emails of the corporate participants were sent out in alphabetical order of the first names of the participants in ascending order starting from A to Z, in groups of 200 per treatment. This email contained instructions for participants to review the site and access the survey on the online University of Witwatersrand survey system (qualtrics.com). The time and period was the same as for the university students as described below.

In all the groups, an email with a cover letter informing participants they had been randomly selected and invited to participate in this study be carried out for the purposes of a Masters degree completion at the University of Witwatersrand, Johannesburg. The email informed participants of the study's

objective to investigate the effects of selected website tools on consumer Trust and Risk perceptions in e-commerce. They were informed that the survey participation requires completion of a short structured questionnaire. Participants were informed that the survey would take approximately 15 minutes to complete and that participation is completely anonymous as results cannot be tracked back to them individually, and that all data would be used only for academic purposes.

A link to the survey was included in the body of the email, which when clicked allowed candidates to access the online survey including the instructions (see Appendix A). After completing the demographic information, respondents were instructed to take a moment to review the website and before continuing with the survey (example in Appendix B).

The website was opened on a new tab whenever the website link was chosen so the respondents was not interrupted on the survey as they answered.

The questionnaire was set up on Qualtrics.com for the first group, Group A with version 0 of the website, this questionnaire on Qualitrics.com was locked and only opened on 28.09.2020 and the email to all Group A participants was sent out on 28.09.2020 at 07h55 in the morning for the university students, and on the same day at 08h00 for the corporate. The questionnaire was left open and unlocked until 04.10.2020 at 21h00 for both the university students and corporate. During this period 61 complete responses where received through Qualtrics.com from both the academic institution and the corporate.

The questionnaire was set up on Qualtrics.com for the second group, Group B with version 1 of the website, this questionnaire on Qualitrics.com was locked and only opened on 21.09.2020 and the email to all Group B participants was sent out on 21.09.2020 at 09h25 in the morning for the university students, and on the same day at 08h00 for the corporate. The questionnaire was left open and unlocked until 27.09.2020 at 21h00. During this period 61 complete

responses where received through Qualtrics.com from both the academic institution and the corporate.

The questionnaire was set up on Qualtrics.com for the 3rd group, Group C with version 2 of the website, this questionnaire on Qualitrics.com was locked and only opened on 12.10.2020 and the email to all Group C participants was sent out on 12.10.2020 at 08h10 in the morning for the university students, and on the same day at 08h00 for the corporate. The questionnaire was left open and unlocked until 18.10.2020 at 21h00. During this period 43 complete responses where received through Qualtrics.com from both the academic institution and the corporate.

The questionnaire was set up on Qualtrics.com for the 4th group, Group D with version 3 of the website, this questionnaire on Qualitrics.com was locked and only opened on 19.10.2020 and the email to all Group D participants was sent out on 19.10.2020 at 12h33 in the morning for the university students, and on the same day at 08h00 for the corporate. The questionnaire was left open and unlocked until 25.10.2020 at 21h00. During this period 52 complete responses where received through Qualtrics.com from both the academic institution and the corporate.

3.8 Data analysis and interpretation

First, descriptive statistics were necessary to describe the demographics of participants and their scores on the variables of interest.

Chi-square tests were then used to confirm whether differences exist between the control and treatment groups on any demographic factors (including age, gender, academic level, employment status, intention to start a business, and familiarity with shopping on the internet).

Next, a principal components analysis (PCA) was used to confirm the convergent validity of the measure scales. Convergent validity refers to how

closely a scale is similar to other variables and measures of the same construct (Krabbe, 2017). PCA helps to establish this by confirming the unidimensionality of scales and the loading of items onto their constructs (Jolliffe & Cadima, 2016).

Cronbach's alpha was used to confirm internal consistency reliability of the measures. A generally accepted cut-off level is between 0.6 and 0.95, as anything above 0.95 could be an indication of redundancy (Ursachi, Horodnic, & Zait, 2015).

Subsequent to those tests, one-way ANOVA is used to confirm whether differences exist between the control and treatment groups on the variables of Trust and Risk. This allowed for testing H1a, H1b, H2a, H2b and H3.

To confirm hypotheses, the treatment group would need to differ significantly from the control group ideally at the $p<0.05$ level but the $p<0.10$ level will also be considered indicative of hypothesis support. This level of significance was chosen because $p<0.1$ means that should the study be done ten times, it will yield the same result more than nine times out of the ten, which is good enough of a generalisation for what this study set out to achieve on this study.

To test H4a, H4b, H5a, H5b and H6, correlation analysis was initially used to establish whether simple bivariate relationships existed between the variables. A significant correlation at the $p<0.05$ level was used as the basis for initial indicative support for the hypotheses.

Thereafter, a multiple linear regression was used to test the relationships between willingness to purchase as the dependent variable and Trust, Risk and benefits as the independent variables. Regression was considered the most appropriate methods to analyse the relationships between the dependent variable and the multiple independent variables being evaluated (Kim, Ferrin, & Rao, 2008). Regression coefficients would be considered significant at the $p<0.05$ level, with the R-squared statistic confirming the explanatory power of the model.

3.9 Treatment Checks and Other Controls

Within experimental work, it is important to ensure that participants pass treatment checks. In this study, it was necessary to ensure that respondents were aware of the website features to which they were exposed in the different versions of the website. Treatment check refers to questions that are supposed to be answered correctly, such as in correctly identifying the different features per respective website version. As a treatment check participants in Groups B and D were asked to correctly identify the presence of a Live Chat feature on the website. Those that did not correctly identify the Live Chat feature were strictly removed from the final sample. Furthermore, as a treatment check participants in Groups C and D were asked to correctly identify the presence of Customer Reviews. Those that did not correctly identify the Customer Reviews feature were strictly removed from the final results. These treatment check questions are presented in Table 4.

Relevance checks refer to whether the participants find the study meaningful to them, in this case the experimental situation of an online e-service purchase. As the relevance check, participants needed to indicate that they were familiar with online purchasing and that they were intending to start a business in the near future. This helped ensure that the services of the website were more likely to have relevance to the study participants. Anyone else that chose "not sure" or "No" were strictly removed from the final results.

Because familiarity was found important in past works as influencing Trust perceptions (Thatcher, Carter, Li, & Rong, 2013; Kim & Srivastava, 2007), a methodological control was also included to ensure that only individuals with no prior knowledge of the e-service provider was studied. Participant were therefore asked if they had previous knowledge of the provider.

To ensure that groups did not differ on other relevant factors, they were compared on age, gender, education, employment status, experience with e-

commerce, familiarity with websites. Moreover, attitudes to Live Chats and Customer Reviews was probed.

3.10 Limitations of the study

Limitations and potential weaknesses in the study:

- The study uses participants from University of Witwatersrand and the anonymous corporate in South Africa, so generalisation may be limited and result might not apply to the broader population.
- The e-service being evaluated, i.e. website address/domain services, may not be a popular service type among South African SMMEs looking to use websites to sell their services.
- Considering the participants chosen are usually busy during working hours, which is the time the survey was sent, they may not have enough time to answer the survey or go through the instructions of the experiment. This may result in a non-response bias.
- Social desirability bias is a factor in all survey studies as participants could give responses that are more socially desirable or acceptable than giving responses that are their true feelings or thoughts (Grimm, 2010).

3.11 Validity and reliability

3.10.1 External validity

This study may not necessarily be generalised beyond the participants drawn from the Wits University and the anonymous corporate. External validity of the study would be higher with a pure random sample drawn from the population. The study may be subject to a selection bias and a non-response bias that also post a threat to external validity. As a result this study can be used to build up

on future studies done at the Wits University or as a comparative study to other studies of the same nature at other universities or sectors of the economy. The use of student samples is however considered valid and appropriate in past work (Kim, Qu, & Kim, 2010), and use of employees of corporates is common in survey studies into online behaviour.

3.10.2 Internal validity

There are other factors that influence the internally validity of the study like state of mind of the participants when they are completing the survey. To make the study more valid, surveys were sent in the morning before the participants begin their day, and on a Monday. In the beginning of the week where the participants may have the energy for the whole week and have no pressure to finish before the week comes to an end. The internal validity of the study is improved by the assignment of individuals to treatment groups and the use of an experimental manipulation to confirm the relative effects of Customer Reviews and Live Chat on Trust and Risk.

3.10.3 Reliability

To ensure measurement reliability, the study used Cronbach alpha to confirm internal consistency of scales. The survey and Likert scale questions were also pre-tested and pilot tested before they were sent out to the participants.

3.12 Ethical considerations

To ensure this research was ethical, the following guidelines in addition to the guidelines of Wits University were followed. The study:

1) Requested the respondent's consent for the completion of the questionnaire

2) Advised the respondent of the information that the study intends publishing and obtain his/her consent in this regard.
3) The participants were not be named or be identifiable in such research and in the final research project;
4) No proprietary or confidential information, data and/or intellectual property of the participants or its suppliers was collected or reported on.
5) No personal information relating to participants was collected or reported on;
6) No information that can result in reputational damage for the participants was utilised or reported on;
7) The results of the research would be provided to all participants if requested
8) All participants reserved the right to withdraw their consent and participation at any time.

Ethical clearance was obtained from the relevant ethics committee of the Wits Business School before proceeding with the study. Protocol number WBS/BA0604928h/925

3.13 Conclusion

This chapter presented the study's research methods. In particular, it was explained that the study adopted an experimental research design, with data collected from a sample of participants invited from an academic institution and an anonymous corporate based in South Africa who were assigned to one of four treatment groups. The chapter described the experimental treatments, presented the study's measures, and explained the use of qualtrics.com for administration of the survey instrument. The methods for analysis were also described along with considerations for validity and reliability and ethics.

The next chapter presents the results of the study.

CHAPTER 4. PRESENTATION OF RESULTS

4.1 Introduction

This chapter presents and describes the study results. First, data preparation and cleaning is outlined. Next, the sample profile for each of the experimental groups is described and the groups are compared for equivalence on their demographics. Then results of validity and reliability testing are presented. Finally, the hypotheses are tested using ANOVA, correlation and multiple regression.

4.2 Data Preparation

This study used Qualtrics.com to conduct the survey of this study for each of the experimental groups. Study participants and survey respondents were a group of postgraduate students attending University of the Witwatersrand, Johannesburg and employees of an anonymous corporate in South Africa. Between 28 September and 25 October 2020, for four weeks, surveys were sent to each of the four treatment groups. A total of 217 individuals participated across the four experimental groups and responded to the survey.

Data preparation involved exporting the Qualtrics.com survey data of all four groups into Excel format. The first step, was to remove from the dataset all respondents who did not pass the treatment check question. Specifically, the respondents were asked whether they saw Live Chat and Customer Review features on the website and how those were presented on the site. Respondents that did not answer correctly were eliminated. This left a total of 174 participants from 217. The second step, was to remove all the participants who were familiar with the website vendor prior to taking the survey. A further 16 responses were removed in this step. Third, in line with the relevance check questions, respondents that had never or were not thinking of starting a

business in the near future were removed. A further 57 respondents were removed in this step.

After eliminating these 116 invalid responses, a total of 101 responses across the four treatment groups were available to be used for the analysis. Table 6 presents a summary of the data preparation steps.

Group A represents the group of participants not exposed to Customer Reviews and not exposed to Live Chat; this is the control group (Treatment 1) with n=27. Group B are participants exposed to the Live Chat manipulation (Treatment 2) with n=25. Group C are participants exposed to the Customer Reviews manipulation (Treatment 3) with n=22. Group D are participants exposed to both the Customer Reviews and Live Chat manipulations (Treatment 4) with n=27.

Table 7 summarizes the profile of the 101 usable responses, which were analysed. The distribution of respondents' gender across the 4 experimental groups are as follows: 59% males and 41% females for Group A, 48% males and 52% females for Group B, 54% males and 46% females for Group C, 34% males and 62% females for Group D. For age, most of participants were between age 25 and 34 (41% average) for Group A, B and D, between age 45 to 54 for Group C. This shows that not more than 50% are at a particular age group, this shows that both Age group and Gender are not biased across all groups, as shown per the Chi-Square test. Highest level of school, experience with the use of the internet for e-commerce and employment status were also shown not to be significantly different from each other across all groups as per the Chi-Square test. The detailed cross-tabulations and chi-square test results are reported in Appendix D.

Table 6: Filtering of Final Sample Sizes

	Group A /Treatment 1	**Group B /Treatment 2**	**Group C /Treatment 3**	**Group D /Treatment 4**
	Control	**Chat only**	**Reviews only**	**Chat and Reviews**
Date sent out	28.09.2020 @ 07h55	21.09.2020 @ 09h25	12.10.2020 @ 08h10	19.10.2020 @ 12h33
Number of days available to complete	04.10.2020 @ 21h00	27.09.2020 @ 21h00	18.10.2020 @ 21h00	25.10.2020 @ 21h00
Number of people responding	61	61	43	52
Number of people who passed the treatment check question	45	47	40	42
Number of people who were familiar with this Website vendor Prior to taking the survey.	5	8	0	3
Number of people who have never started a business before or not thinking of starting one in the near future.	13	14	18	12
Final sample size for each group	27	25	22	27

4.3 Sample Profile

The demographic profile of the four groups is presented in Table 7.

Table 7: Demographics of Final Sample Sizes

	Group A	Group B	Group C	Group D	Chi-square
	Control (Treatment 1)	Chat only (Treatment 2)	Reviews only (Treatment 3)	Chat and Reviews (Treatment 4)	
Gender					
Male	16 (59%)	12 (48%)	12 (54%)	9 (34%)	χ2 (6) =6.294 (p=0.391)
Female	11 (41%)	13 (52%)	10 (46%)	17 (62%)	
Did not say	0 (0%)	0 (0%)	0	1 (4%)	
Age					
18-24	4 (15%)	3 (12%)	3 (14%)	5 (18%)	χ2 (15) =21.380 (p=0.125)
25-34	11 (41%)	10 (40%)	6 (27%)	12 (44%)	
35-44	6 (22%)	7 (28%)	6 (27%)	9 (34%)	
45-54	2 (7%)	3 (12%)	7 (32%)	1 (4%)	
55-64	4 (15%)	1 (4%)	0	0 (0%)	
65 or older	0	1 (4%)	0	0	
Prefer not to say	0	0	0	0	
Highest Level of School					
Some high school	0	0	0	0	χ2 (12) =14.954 (p=0.244)
High School Matric	1 (4%)	3 (12%)	2 (9%)	0	
Post-Matric certificate	3 (11%)	1 (4%)	2 (9%)	1 (4%)	
Bachelors degree	12 (44%)	3 (12%)	7 (32%)	8 (30%)	
Professional	1 (4%)	0 (0%)	0 (0%)	1 (4%)	

degree					
Postgraduate Degree	10 (37%)	18 (72%)	11 (50%)	17 (62%)	
No formal education	0	0	0	0	
Prefer not to say	0	0	0	0	
Internet experience					
Yes	20 (74%)	20 (80%)	21 (95%)	22 (82%)	$\chi 2$ (15) =6.454 (p=0.971)
No	5 (19%)	3 (12%)	0 (0%)	3 (11%)	
Neutral	2 (7%)	2 (8%)	1 (5%)	2 (7%)	
Employment status					
Full-time Student	10 (38%)	6 (24%)	6 (27%)	9 (34%)	$\chi 2$ (15) =15.147 (p=0.441)
Full-time employee	13 (48%)	12 (48%)	11 (50%)	12 (45%)	
Part-time employee	2 (7%)	0 (0%)	1 (5%)	2 (7%)	
Self-employed	2 (7%)	6 (24%)	4 (18%)	2 (7%)	
Not currently working or studying	0	1 (4%)	0	0 (0%)	
Prefer not to say	0	0	0	2 (7%)	

Participants in the experimental groups (B, C and D) were also asked questions about their attitudes toward Reviews and Live Chats, respectively. The questions probed whether respondents preferred in general to purchase from sites that included Customer Reviews or Live Chat features. The results shown in Table 8 suggest that participants were only somewhat positive about

Customer Reviews and more neutral in their attitudes toward Live Chats. The general attitudes to Customer Reviews were similar between Groups C and D, with attitudes to chats significantly higher in Group D than group B (see Table 9). Group D scored highest in both attitudes.

Table 8: Means Live Chat and Customer Reviews Attitude

	Group B	Group C	Group D
Attitude to Reviews		4.10	4.57
Attitude to Chats	3.00		3.81

Table 9: ANOVA Live Chat and Customer Review Attitude

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
CHAT	Between Groups	8.618	1	8.618	5.390	.024
	Within Groups	79.949	50	1.599		
	Total	88.567	51			
REVIEWS	Between Groups	2.698	1	2.698	2.407	.127
	Within Groups	52.684	47	1.121		
	Total	55.383	48			

4.4 Reliability and Validity

As described in Chapter 3, validity (with a focus on unidimensionality and convergent validity) was established through the use of PCA, while reliability was established with the use of Cronbach's alpha. From Table 10 it can be seen that the Cronbach's Alpha for all the variables exceeds the recommended cut-off of 0.95, implying the measurement of Trust, Risk, Benefit, Intention and Information variable have good internal consistency and thus considered reliable for analysis. The detailed PCA test results for each construct along with reliability tests are reported in Appendix D.

The variables are summarised in Table 10.

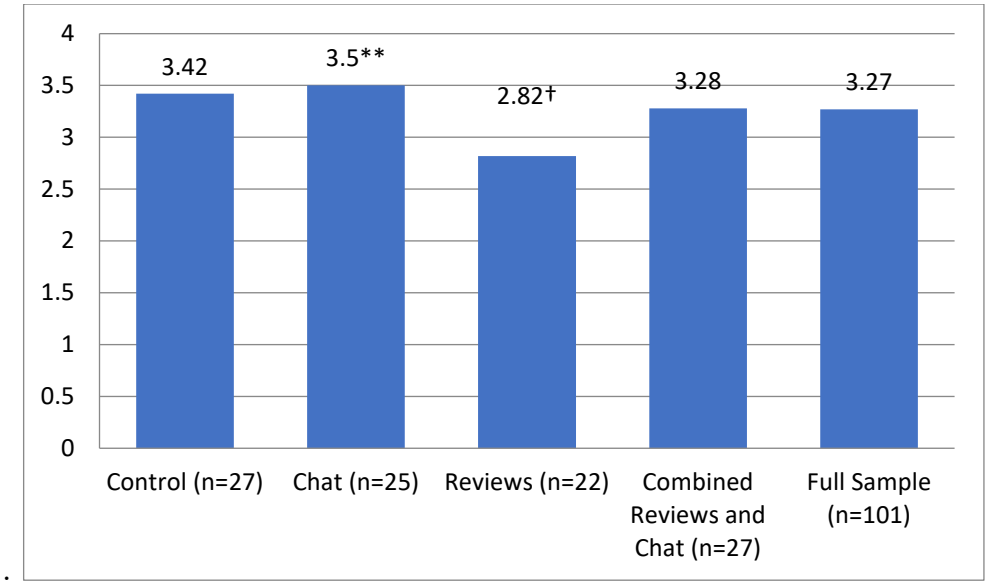
Table 10: Results of PCA Tests for Validity

Variable	Number of items	AVE from PCA	Cronbach's Alpha	Mean	Standard Deviation
Trust	7	67.375%	0.917	3.27	1.14
Risk	6	67.728%	0.904	3.18	1.08
Benefits	5	67.474%	0.877	3.37	1.11
Intention	3	72.81%	0.812	2.52	1.35
Information	5	65.337%	0.866	3.53	1.08

Having established reliability of the measures, the analysis could proceed to test the study's hypotheses.

4.5 Results pertaining to the link between website tools and Trust and Risk perceptions (H1, H2 and H3)

To compare the control and treatment groups on Trust and Risk perceptions, the aggregate Trust and Risk scores for the various experimental groups were calculated. The group comparisons are depicted in Table 6 and 7, with formal test results presented in Table 11 and Table 12. Table 11 presents the ANOVA test results that compare differences in means across the four experimental groups, while Table 12 presents the post-hoc tests of pair-wise differences between the groups. Table 11 shows no significant differences across the groups, however post-hoc analysis did detect some important pair-wise differences discussed next. Despite group D being most positive about Chats and Reviews, as seen in Table 12, they did not score highest on Trust.



.

Figure 9: Trust means comparison

† post-hoc results show significantly lower ($p<0.10$) than Control group

** post-hoc results show significantly higher ($p<0.05$) than Reviews group

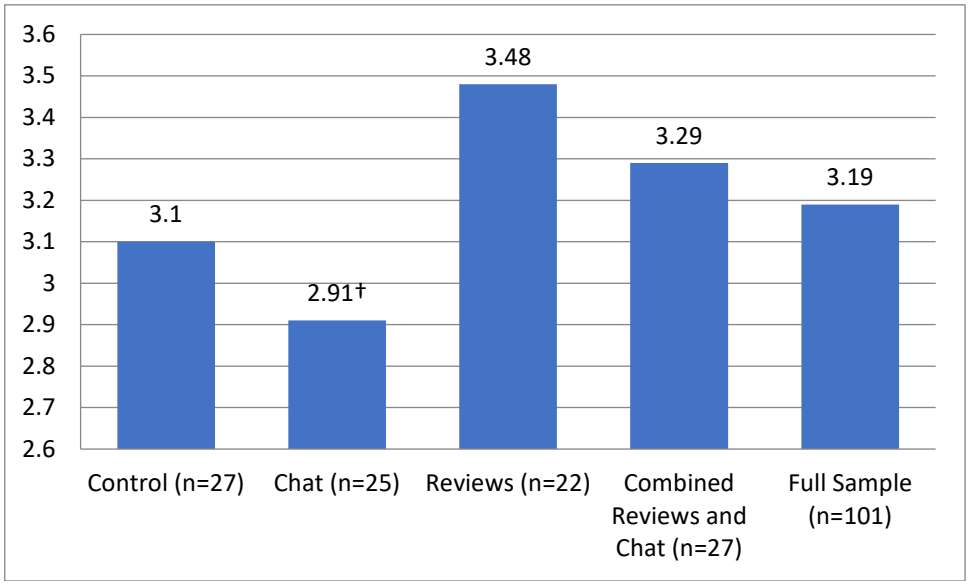


Figure 10: Risk Means comparison

† post-hoc results show significantly lower ($p<0.10$) than Reviews group

Table 11: Trust and Risk ANOVA Tests

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
TRUST	Between Groups	6.416	3	2.139	1.684	.175
	Within Groups	123.172	97	1.270		
	Total	129.588	100			
RISK	Between Groups	4.195	3	1.398	1.209	.311
	Within Groups	112.231	97	1.157		
	Total	116.426	100			

Table 12: Trust and Risk Post Hoc LSD Tests

LSD Multiple Comparisons

Dependent Variable	(I) TREATMENT	(J) TREATMENT	Mean Difference (I-J)	Std. Error	Sig.	90% Confidence Interval Lower Bound	90% Confidence Interval Upper Bound
TRUST	CONTROL	CHAT	-.07386	.31277	.814	-.5933	.4456
		REVIEWS	.60510*	.32365	.065	.0676	1.1426
		CHAT+REVIEWS	.14815	.30669	.630	-.3612	.6575
	CHAT	CONTROL	.07386	.31277	.814	-.4456	.5933
		REVIEWS	.67896*	.32941	.042	.1319	1.2260
		CHAT+REVIEWS	.22201	.31277	.480	-.2974	.7414
	REVIEWS	CONTROL	-.60510*	.32365	.065	-1.1426	-.0676
		CHAT	-.67896*	.32941	.042	-1.2260	-.1319
		CHAT+REVIEWS	-.45695	.32365	.161	-.9944	.0805
	CHAT+REVIEWS	CONTROL	-.14815	.30669	.630	-.6575	.3612
		CHAT	-.22201	.31277	.480	-.7414	.2974
		REVIEWS	.45695	.32365	.161	-.0805	.9944
RISK	CONTROL	CHAT	.19160	.29855	.523	-.3042	.6874
		REVIEWS	-.37233	.30894	.231	-.8854	.1407

		CHAT+REVIEWS	-.18519	.29275	.529	-.6714	.3010
	CHAT	CONTROL	-.19160	.29855	.523	-.6874	.3042
		REVIEWS	-.56394*	.31444	.076	-1.0861	-.0417
		CHAT+REVIEWS	-.37679	.29855	.210	-.8726	.1190
	REVIEWS	CONTROL	.37233	.30894	.231	-.1407	.8854
		CHAT	.56394*	.31444	.076	.0417	1.0861
		CHAT+REVIEWS	.18715	.30894	.546	-.3259	.7002
	CHAT+REVIEWS	CONTROL	.18519	.29275	.529	-.3010	.6714
		CHAT	.37679	.29855	.210	-.1190	.8726
		REVIEWS	-.18715	.30894	.546	-.7002	.3259
*. The mean difference is significant at the 0.1 level.							

H1: The influence of Customer Reviews on Trust and Risk

It was hypothesised that:

- **H1a**: Consumers exposed to positive Customer Reviews on a website will have greater Trust than consumers not exposed to Customer Reviews. Table 12 together with figure 9 show that Treatment 3 (Reviews group) scored significantly lower ($p<0.10$) on Trust than the control group. This was not an expected finding as Reviews were expected to increase Trust perceptions. Thus H1a is no supported. Customer Reviews did not increase Trust, and were instead found to be associated with significantly lower levels of Trust from the baseline. Interpretation and possible reasons for this unexpected finding are presented in Chapter 5.
- **H1b**: Consumers exposed to positive Customer Reviews on a website will have lower levels of Risk perceptions than consumers not exposed to Customer Reviews. Table 12 together with figure 10 show that the Risk Means in Treatment 1 (Control group) is lower than that of Treatment 3 (Reviews group). Risk in the Reviews group is about 1.15 times that in the control group. H1b is thus also not supported. Although this result is not statistically significant ($p>0.10$), the result is nonetheless counter

intuitive as it was thought Reviews would lower Risk perceptions. This result will be discussed further in Chapter 5. .

H2: The influence of Live Chat on Trust and Risk

- **H2a:** Consumers exposed to Live Chat tool on a website will have greater Trust than consumers not exposed to Live Chat tool. Table 12 together with figure 9 show that the Trust Mean in Treatment 2 (Chat group) is marginally higher than that of Treatment 1 (Control group), but this difference is not statistically significant as seen in Table 12 (significance of 0.814). Thus H2a is not supported.
- **H2b:** Consumers exposed to Live Chat tool on a website will have lower levels of Risk perceptions than consumers not exposed to Live Chat tool. Table 12 together with figure 10 show that the Risk Mean of Treatment 2 (Chat group) is lower than that of Treatment 1 (Control group), but they are not significantly lower though as seen in Table 11&12 at only 0.523. Thus H2b is not supported.

H3: The relative influence of Live Chat versus Customer Reviews on Trust and Risk

Two alternative hypotheses (H3a and H3b) were stated to consider which between Customer Reviews or Live Chat tools would be more effective in influencing Trust and Risk perceptions of e-services website visitors.

The results presented in Figure 9, Figure 10 and Table 12 show that Treatment 2 (Chat group) scored significantly higher ($p<0.05$) on Trust than the Treatment 3 (Reviews group). Furthermore, Treatment 2 (Chat group) scored significantly lower ($p<0.10$) on Risk perception than the Treatment 3 (Reviews group). Thus, taken together H3a is not supported and H3b is supported, therefore it advisable to SMMEs or anyone building an e-commerce website to prioritise

Live Chat tools to help increase Trust and reduce Risk perceptions in the eyes of potential customers in the South African market. Live Chats were associated with increased Trust and lowered Risk perceptions compared to Reviews, while Reviews, as treated in this study, had a counter intuitive effect on both Trust and Risk compared to the baseline control and were thus not more effective than Live Chat.

4.6 Results pertaining to Information Quality, Trust and Risk

It was hypothesized that information quality would increase consumer Trust (H4a) and decrease consumer Risk (H4b). The correlations between Information Quality and Trust and Risk Perceptions for the full sample are reported in Table 13. There is a strong positive correlation ($r=0.703$) between Trust and Information Quality, significant at the $p<0.001$ level. Thus Information Quality is associated with increased trust, and H4a is supported. Therefore it is important to have high Quality Information on the website to increase Trust. There is a strong negative correlation between Risk and Information Quality ($r=-0.655$), significant at the $p<0.001$ level. Thus Information Quality is associated with reduced Risk perception, and H4b is supported.

Figure 11 illustrates the information quality perceptions across the four groups. The Reviews group did have a significantly lower perception of information quality ($p<0.05$) than the chat group.

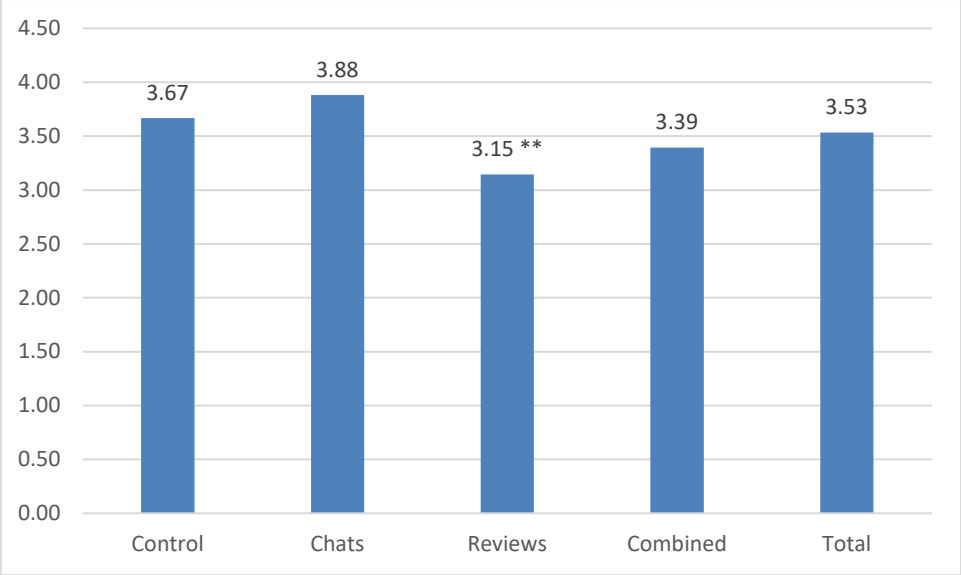


Figure 11: Information Quality Means Comparison

** Oneway results show Reviews group significantly lower on information quality ($p<0.05$) than Live Chat group

Table 13: Information Quality, Risk and Trust correlations

Pearson correlations	Information Quality
Trust	0.703 ($p<0.001$)
Risk	-0.655 ($p<0.001$)

4.7 Results pertaining to Trust, Risk and Benefit to willingness to purchase (H5 and H6)

It was hypothesized that willingness to purchase would depend on Trust (H5a), Risk perceptions (H5b) and perceived benefits (H6). As an initial test of these hypotheses, Table 14 presents results of correlation analyses between willingness to purchase and the three independent variables of Trust, Risk and

perceived Benefits. The combined dataset (n=101) from across all four experimental groups are used for the analysis.

As seen in Table 14 there is a strong positive correlation between Trust and the Willingness to Purchase, which is statistically significant at the p<0.001 level.

As seen in Table 14 there is a strong negative correlation between Risk and the Willingness to Purchase.

As seen in Table 14 there is a strong positive correlation between Benefit and the Willingness to Purchase.

Taken together, H5a, H5b and H6 can be supported.

The limitation of the correlation analysis is that it is bivariate and does not present the unique and combined effect of the three independent variables on Willingness to Purchase. The multiple regression analysis results also presented in Table 14 illustrate this combined effect.

Table 14: Intention and Trust and Risk correlations and Multiple regression

Bivariate Correlations

Pearson correlations	Willingness to Purchase
Trust	0.772 (p<0.001)
Risk	-0.728 (p<0.001)
Benefits	0.745 (p<0.001)

Multiple Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.837[a]	.700	.690	.74888

a. Predictors: (Constant), Benefit, Trust, Risk

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	126.789	3	42.263	75.359	.000[b]
	Residual	54.399	97	.561		
	Total	181.188	100			

a. Dependent Variable: Willingness to Purchase

b. Predictors: (Constant), Benefit, Trust, Risk

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			
		B	Std. Error	Beta	T	Sig.	
1	(Constant)	.529	.700		.756	.452	
	Trust	.462	.104	.390	4.446	.000	p<0.001
	Risk	-.266	.111	-.213	-2.392	.019	p<0.05
	Benefit	.396	.101	.327	3.919	.000	p<0.001

a. Dependent Variable: Willingness to Purchase

The results show the three variables explain 70% of the variance in willingness to purchase (R-squared = 0.700). This model's F-value is highly significant at the p<0.001 level. Results show that all three variables retain unique effects on willingness to purchase. Trust has the largest effect (β= 0.390, p<0.001), then Benefit has the second largest effect (β= 0.327, p<0.001), and lastly Risk has a smaller but significant effect in contributing to willingness to purchase (β= -0.213, p<0.05).

All three hypotheses (H5a, H5b, H6) are thus supported.

4.8 Summary and Conclusion

This chapter presented the study's results. Demographics of sample profile were presented, along with data cleaning and tests for scale reliability. ANOVA, correlation and multiple regression were used to test the hypotheses.

The sample size is significant to conclude on the purposes of this experiment. The results of hypothesis testing are summarised in Table 15. The results show

that Live Chats are more important than Customer Reviews for influencing Trust and Risk. Customer Reviews did not appear to have the intended effect, while on the other hand, Live Chats were found to be significant. Information quality was significant for Trust and Risk. Further analysis shows the variables of Trust, Risk and Benefit are all significant for Willingness to Purchase.

Table 15: Summary of Results

Hypothesis	Relationship	Result	Explanation
H1a	Reviews -> Trust	not supported	ANOVA results show Reviews detract significantly from Trust
H1b	Reviews -> Risk	not supported	ANOVA results show Reviews are higher in Risk but not significantly different from Control
H2a	Chats -> Trust	not supported	ANOVA results show Chats are higher in Trust but not significantly different from Control
H2b	Chats -> Risk	not supported	ANOVA results show Chats are lower in Risk but not significantly different from Control
H3a / H3b	Chats versus Reviews	H3b supported	ANOVA results show Chats are significantly higher than Reviews in Trust and significantly lower in Risk perceptions
H4a	Information quality -> Trust	supported	Information Quality has a strong positive correlation with Trust.
H4b	Information quality -> Risk	supported	Information Quality is associated with reduced Risk perception, strong negative correlation.
H5a	Trust -> Willingness to Purchase	supported	Strong positive effect of Trust on Willingness to Purchase.
H5b	Risk -> Willingness to purchase	supported	Strong negative effect of Perceived Risk on Willingness to Purchase.

H6	Benefits -> Willingness to Purchase	supported	Strong positive effect of Perceived Benefit on Willingness to Purchase

The next chapter will discuss these findings with reference to the literature.

CHAPTER 5. DISCUSSION OF THE RESULTS

5.1 Introduction

The previous chapter presented results of the data analysis and concluded on the study's hypotheses. This chapter presents a discussion and explanation these results within the context of prior literature and theory.

5.2 Customer Reviews and Trust and Risk (H1a and H1b)

Researchers have suggested that tools can serve as signals that influence the processes by which consumers form trustworthiness perceptions during an initial sales encounter with e-commerce businesses (Ceaparu, Demner, Hung, Zhao, & Shneiderman, 2001). This study followed works such as (Quaschning, Pandelaere, & Vermeir, 2015) to explore the inclusion of customer reviews as one such tool. Past work has suggested that testimonials can be important in establishing strategic trust among on-line customers (Ceaparu, Demner, Hung, Zhao, & Shneiderman, 2001).

It was hypothesised that the presence of Customer Reviews might increase Trust because website visitors who have the motivation and ability to read other Customer Reviews are likely to pay careful attention to other consumers' opinions about an e-service they consider purchasing. This will very likely put them at ease about their decision to buy on this particular e-services website (Walther, Liang, Ganster, Wohn, & Emington, 2012). Also, should the same users perceive the source of the message as coming from a credible source like a previous customer that can be verified they tend to want to buy even more (Quaschning, Pandelaere, & Vermeir, 2015). Thus online Customer Reviews can increase Trust through trust transference. Past work suggested it was the presence of Reviews that mattered, as a vendor would be seen as trustworthy regardless of whether the Reviews are negative or positive (Elwalda & Lu,

2016). The study also found that vendors that make it fun for the customers record their own Reviews on the site and make it fun to have others read the Reviews frequently improve the effectiveness of the Reviews towards increasing Trust (Elwalda & Lu, 2016).

The presence of customer reviews was also theorised to lower Risk perceptions. Online commerce increases uncertainty for consumers which gives rise to Risk. This is because of information asymmetry problems and the virtual nature of the interaction between service provider and consumer. Customers who do not have complete information about a product or service would thus want to lower uncertainty and Risk by looking at what other customers that purchased the same product or service have to say. (Kim & Srivastava, 2007). It has been observed in previous studies that the customer decision process is influenced by information from trusted people, not from vendors or recommendation systems (Kim & Srivastava, 2007). The studies further showed that the social influence from high quality Reviews written by previous customers has a direct, positive effect on potential consumers' decision making (Kim & Srivastava, 2007).

However, results reported in Chapter 4 showed that the presence of customer Reviews was associated with higher Risk perceptions, albeit not significantly different from the Control. It was further reported in Chapter 4 that the presence of Customer Reviews detract significantly from Trust compared to the control group. This was an unexpected finding given that logic and findings of prior studies.

Both these results were totally unexpected but there may be a number of explanations for these results. One explanation for these unexpected findings might be that this study used Video Reviews and Text Reviews and that together these may have been overwhelming. There has also been literature (He, Hollenbeck, & Proserpio, 2020) that talks about the problem of fake Reviews. Fake Reviews occur when reviewers are incentivised to give positive feedback. (He, Hollenbeck, & Proserpio, 2020). Participants in this study may

have had little basis on which to judge whether the reviewers were fake or not. Also characteristics of Reviews can influence their effectiveness. For example, the length and valence of Reviews has previously been looked at for effects on purchase decisions (Quaschning, Pandelaere, & Vermeir, 2015). Valence refers to a form of star ratings, which serve as a heuristic cue reflecting the popularity and the quality of a product or service.

Furthermore, most studies found that positive product reviews have a positive correlation with positive attitudes toward products and increase purchase intention, whereas negative ones have a negative effect to both attitude and purchase intent (Kim, Maslowska, & Malthouse, 2017). Length refers to the number of sentences a single review has on a website. The length of a message is an indicator for review quality (Huanga, Chen, Yen, & Tran, A study of factors that contribute to online review helpfulness, 2015), with longer messages expected to give high-quality information on product features and services. Another study found that review length has an inverted-U relationship with purchase probability, so it is only effect to a particular length and then starts being less effective (Kim, Maslowska, & Malthouse, 2017). This study did not consider review length or perceptions of review quality. These may all be possible explanations for the unexpected results pertaining to the presence of Customer Reviews.

5.3 Live Chats and Trust and Risk (H2a and H2b)

In previous research it had been found that the absence of social presence reduced Trust (Lu, Fan, & Zhou, 2016). As result, the introduction of website tools that can promote social presence, such as Live Chats, do have positive impacts on the trust customers feel when buying from a website (Lu, Fan, & Zhou, 2016). Another study also found that human warmth or sociability may be installed through actual interactions with other humans or by stimulating the imagination of interacting with other humans, these could be by means of a Live Chat (Hassanein & Head, 2007). The more realistic and in context the

conversation with the customer intending to buy on the website, the better the Trust levels (Hassanein & Head, 2007).

Risk perceptions were also found to be lower when the website included the Live Chat tool. Live Chat usually serves as an online help desk and customer service on the website the visitor is browsing (Turel & Connelly, 2013). In some cases where Live Chat is used, customers usually ask more detailed information regarding the e-service they would like to buy, details like return policy and payment options (Turel & Connelly, 2013). So checking for certain all these details through Live Chat in real-time drastically reduces the risk of the customer, as before they transact on the website they know for sure they have the correct information on what to expect from the website.

5.4 Customer Reviews versus Live Chats (H3a and H3b)

It was not certain whether Live Chat would be better than Customer Reviews in reducing Risk perceptions and inspiring Trust among online consumers. Results however showed that indeed Live Chat was better than Customer Reviews in reducing Risk perceptions and inspiring Trust among online consumers. This may be because only positive Customer Reviews from review platforms like Google Reviews, Facebook Reviews, Hellopeter.com etc. were included on the Sive.Host website. The Sive.Host website did not allow customers to directly input their reviews (positive or not) onto the site, but instead the reviews were shown from the various public review sites. So the users may have perceived the source of the message as not coming from a credible source like a previous customer that can be verified. The perceived source of the message affects effectiveness of Customer Reviews in inspiring Trust (Quaschning, Pandelaere, & Vermeir, 2015). There has also been literature (He, Hollenbeck, & Proserpio, 2020) that talks about the problem of fake Reviews. Fake Reviews occur when reviewers are incentivised to give positive feedback. (He, Hollenbeck, & Proserpio, 2020). Participants in this study may have had little basis on which to judge whether the reviewers were fake or not.

Also given the nature of Customer Reviews, customers cannot make for certain payment information or banking details are correct in real time before they transact on the site. So when there are Customer Reviews alone, the customer is always left to doubt what is written on the website and no real-time means to double check detailed information before they transact. Customers usually prefer to ask more detailed information regarding the e-service they would like to buy, details like return policy and payment options (Turel & Connelly, 2013). Unlike Customer Reviews, with Live Chat customers can ask all they need to ask to make for certain they will not suffer any financial or information loss on the website and know what to expect from the site. This thus reduced Risk perceptions for Live Chat compared to Customer Reviews. In this study, the Live Chat agents were also very responsive whenever a customer initiated a chat session. The Live Chat agents were also very experienced and well trained, they had been with Sive.Host on average for 5 years or more. So in this study customers were not frustrated by delayed responses, unreliable or poor quality responses (Mclean & Osei-Frimpong, 2017), but instead experienced quick responses, reliable and good quality responses, inspiring Trust.

5.5 Information Quality and Trust and Risk (H4a and H4b)

Kim et al. introduced information quality as a cognitive antecedent of trust and Risk in e-commerce. However, information varies quite a lot in quality from one website to another, going from highly accurate and reliable to totally inaccurate and unreliable, to intentionally misleading. As a result, potential customers on the internet are very much likely to be attentive to the quality of information they consume from a website (Kim, Ferrin, & Rao, 2008).

This study confirmed a significant positive relationship between Information Quality perceptions and Trust. The results confirm that potential customers will therefore be more likely to have confidence that the website is reliable and perceive the website as trustworthy when they perceive the site as presenting high quality information that is accurate, current and relevant.

Moreover, this study confirmed that across all the groups, information quality was significantly negatively related to Risk. Quality information reduces the uncertainties that give rise to Risk perceptions and thus assists in reducing the perceived Risk in transacting on the website (Kim, Ferrin, & Rao, 2008).

5.6 Trust, Risk, Benefits and Intention (H5a, H5b, H6)

Past literature had suggested that Trust has been linked to behavioural intent. For example, in their research on online shopping, Bart et al. (2005) found a strong correlation between behavioural intent. Behavioural intent included willingness to continue clicking on a website, abandoning versus returning to the website, sending emails, downloading files, and ordering from the website. This effect of behavioural intent was found to be strongest for websites with infrequently purchased, high-involvement items, and weakest for websites oriented toward frequent transactions (Bart, Shankar, Sultan, & Urban, 2005). Results of this study confirmed that there is a strong positive correlation between Trust and the Willingness to Purchase. Therefore (H5a) the relationship that the consumer's willingness to purchase increases when trust increases was found to hold in this study.

Moreover, online transactions are associated with potential uncertain negative outcomes (Kim et al., 2007). This is due to the temporal and physical distance between providers and service customers. As a result, risk perceptions are also salient in consumer online decision making (Mou, Shin, & Cohen, 2017). Prior work has shown Risk perceptions, in addition to Trust, have a key influence on purchase intent (Crespo, Bosque, & Sánchez, 2009) Chang & Chen (2008). Results of this study confirmed that there is a strong negative correlation between Risk and the Willingness to Purchase from the e-service website. Therefore (H5b), the logic that the consumer's willingness to purchase from e-services website decreases when risk perceptions increase was found to hold in this study.

Past literature had suggested that perceptions of benefits are important additional determinants of consumer intentions (Kim, Ferrin, & Rao, 2008). Benefits are defined as usefulness, convenience or monetary savings that the consumer can potentially derive from the e-service. Benefits are thus considered strong determinants of consumer's e-commerce transaction decision. Results of this study confirmed that there is a strong positive correlation between Benefit and the Willingness to Purchase. Therefore (H6) the logic that perceived benefits is important to increase consumer willingness to purchase from the e-services website was found to hold in this study. This confirms the importance of utilitarian value to online buyers.

5.7 Conclusion

The main objective of this research was to investigate the effect of a Live Chat website tool as opposed to a Customer Review website tool on Trust and Risk perceptions of website visitors browsing an e-services website based in South Africa. Previous studies determined that elements like Customer Review, Live Chat, seals of approval, and other website tools communicate Trust and reduce Risk perceptions in e-commerce websites. These studies in most cases were not comparative experiments between website tools, and those that did comparative studies between the website tools to find the most effective, none have done it in the South African context, nor a direct comparison between Live Chat and Customer Reviews. This study focused on finding the most effective website tool in communicating Trust to the consumer and reducing Risk perceptions of the consumer between Live Chat and Customer Reviews.

Post Hoc LSD Tests, ANOVA Tests and Means comparison analysis show that Live Chats are significantly higher than Reviews in Trust and significantly lower in Risk perceptions. This means when SMMEs in South Africa have to choose which website tool to use among the two with limited budget, Live Chat is the one to spend their limited budget on when venturing into the e-commerce space. ANOVA results also showed that Customer Reviews detract significantly

from Trust. So Live Chat are better than Customer Reviews on an e-commerce website in inspiring Trust and lowering Risk of the consumer. The cause of this may be related to the fake review issue that is salient in e-commerce when it comes to reviews in general. ANOVA results also showed Customer Reviews are higher in Risk but not significantly different from Control. So there is no that much difference whether SMMEs in South Africa include Customer Reviews or not on their e-commerce websites, but are better off leaving it out in some instances. ANOVA results show Live Chats are higher in Trust but not significantly different from Control. This means that SMMEs in South Africa are better off including Live Chats in their e-commerce websites to increase some Trust, but they are not worse off should they not have Live Chat on their website. ANOVA results show Live Chats are lower in Risk but not significantly different from Control. This means that SMMEs in South Africa are in a better position at reducing Risk perceptions among website visitors should they include Live Chat tools on their website, but also leaving it out does not make much difference in lowering Risk perceptions. High Quality Information increases Trust, and there is a strong positive correlation. This means that it is important to have reliable information on the website to increase Trust. Information Quality is associated with reduced Risk perception. When the information is reliable then consumers find the website less risky. The study also found that there is a strong positive correlation between Trust and the Willingness to Purchase. Furthermore to this the study also found that there is a strong negative effect of Risk on Willingness to Purchase. So the more Trust increases and Risk is lowered in the website then consumers are more likely to purchase on the website. Furthermore a strong positive correlation between Benefit and the Willingness to Purchase was also found on this study. This implies that when the website visitors browsing the website see a potential benefit, they will be more willing to purchase from the website, so advertising to the correct audience that could stand to benefit from the website of the SMME may be a good approach.

CHAPTER 6. CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

This chapter concludes the study. First, a summary of the research is presented followed by its contributions to the literature. Next, the limitations of the study are outlined. Then, recommendations for practice and suggestions for future research are presented. Finally, the research is concluded.

6.2 Summary of the research

Past literature has indicated that Live Chat and Customer Reviews website tools are both useful in inspiring trust and lowering risk perceptions of website visitors in e-commerce. However, none of the past studies compared Live Chat to Customer Reviews to find out which of the two website tools is the most effective in inspiring trust and lowering risk perceptions among website visitors on e-commerce websites in the South African context. Building on previous literature, this study investigated the effectiveness of Live Chat versus Customer Reviews in increasing trust and lowering risk perceptions among website visitors in the South African context. Moreover, the implications of trust and risk along with other cognitions important to customer purchase intention was examined. This study was carried out as a quasi-experiment with responses from 101 participants split across four treatment groups. Each treatment group was exposed to a different version of an e-commerce website. The study found support for the logic that the Live Chat website tool is more effective than to the Customer Reviews website tool in increasing trust and lowering risk perceptions among the study participants. There was no evidence that participants exposed to the Customer Reviews treatment differed from the control, but there was evidence to suggest they scored lower on trust and higher in risk compared to the Live Chat treatment group.

When SMMEs in South Africa have to choose which website tool to use among the two with limited budget, Live Chat may offer better returns for their limited budget. Results also confirmed that high quality information increases trust and reduced risk perceptions. This means that it is important to have reliable information on the website to increase trust. When the information is reliable then consumers also find the website less risky. The study also found that there is a strong positive correlation between trust and the willingness to purchase. Furthermore, the study also found that there is a strong negative effect of risk on willingness to purchase. So the more trust increases and risk is lowered in the website then consumers are very likely to purchase on the website. Perceived benefits also demonstrated an independent effect on willingness to purchase. This implies that when the website visitors browsing the website see a potential benefit, they will be more willing to purchase from the website, so advertising to the correct audience that could stand to benefit from the website of the SMMEs is recommended.

6.3 Contributions of the study

This study contributes to research on website tools in a number of ways relevant to researchers, website designers, vendor and SMMEs in e-commerce. These include contribution to theory, contribution to method and contribution to practice and context.

This study made a contribution to theory by comparing a Live Chat website tool directly with a Customer Review website tool for effects on Trust and Risk in e-commerce by using a quasi-experiment in the South African context. Some past work indicate that website tools act as signals (Walther, Liang, Ganster, Wohn, & Emington, 2012; Koponen & Rytsy, 2020);, similar to other concepts like trust seals, and that these signals are important to increasing Trust and reducing Risk perceptions (Martin, Lars, Sebastian, Alexander, & Ali, 2020). However, extent research has not adequately considered Live Chat compared directly with Customer reviews to compare their effectiveness. Thus before this study

there was no clarity that compared to Customer Reviews, Live Chat plays a more important role in Trust building and Risk reduction on e-commerce websites. This study has thus extended existing research models of Trust and Risk in e-commerce to incorporate the roles of Live Chats and Customer Reviews website tools, this research is extending existing theory (Kim, Ferrin, & Rao, 2008).

Furthermore this study made a methodological contribution by using a quasi-experimental design to overcome the limitations of simple survey-based research designs. Rather than collecting only survey data without any particular website being reviewed in real-time, this study's participants were randomised into four groups and exposed to different website treatments before responding to a set of questions. The study manipulated exposure to the website tools of Customer Reviews and Live Chat, and thus the research better isolated the effects of these tools on participant's Trust and Risk perceptions. Each group saw a different version of the website and no participant that saw one version of the website could answer questions on another version of the website. Consequently, the results of our study suggest that one should consider a quasi-experiment across groups with different treatments when comparing the effectiveness of website tools in e-commerce websites to increase Trust and lower Risk perceptions.

Also the study made a practical and contextual contribution by focusing on how South African SMMEs offering e-services can more effectively establish Trust and reduce Risk perceptions when operating on an e-commerce website budget that can allow either a Live Chat website tool or Customer Review website tool, but not both. Results of this study inform the e-services sector in South Africa as it collected and analysed data relevant to the local context and established that Live Chat website tool is much more effective that Customer Review website tool for local customers in South Africa. Having determined that Live Chat website tool is more important than Customer Review website tool, this study has informed practitioners, website designers, website developers and

SMMEs where to spend their money if they had to choose between the two website tools. The extent to which they both affect Trust and Risk through a quasi-experiment has been determined in this study. This study is then in a good position to give practical guidance to SMMEs providing e-services and looking to build online Trust and reduce Risk perceptions of consumer on the internet.

6.4 Limitations and suggestions for further research

The study results are subject to limitations of cross-sectional research such as the inability to establish temporal precedence in the data, and thus inferences about causality from perceptions of trust, risk and benefits to subsequent purchase intentions are made only with reference to theory. In addition, self-administered surveys can also suffer from common methods bias, and non-response bias. External validity is lowered when study participants differ significantly in their characteristics from non-participants.

A further limitation of this study is that a website selling e-services like website-addresses/domains and website hosting plans was used while most SMMEs in South Africa do not typically sell such e-services. This fact opens possibilities for future research seeking to evaluate the effectiveness of Live Chat versus Customer Review in increasing Trust and lowering Risk perceptions of website visitors on e-commerce websites across other product and service offerings, physical and non-physical. This study also gives way to investigations of other constructs (beyond Trust, Risk, Benefits, Willingness to Purchase and Information Quality) and website tools in the South African context. There are also limitations to manipulation and realism. This study used Video Reviews and Text Reviews, this may have confused the judgement of consumers and the effectiveness of Reviews. Future work may wish to distinguish and differentiate these types of Reviews accommodated in the website design. Specifically, future work could compare written reviews, review scores, and video-based reviews from each other. There was absolutely no control over how

long the respondents browsed the site, how and to what extent they interacted with the treatments such as using the Live Chat or watching all the reviews or reading in detail the customer reviews etc.. While this does increase the external validity by allowing for typical behaviour of consumers without being overly directed in what the participants did in the experiment, it might mean that the participants were not all equally exposed to and engaged in the treatment. Also all participants did not actually purchase any of the e-services. Perhaps if they had to actually purchase some of the e-services they most likely would have been more concerned about the quality of the website and their Trust and Risk senses more heightened. However, our results demonstrate that all participants were able to clearly articulate their preferences between Live Chat and Customer Review website tools without bias.

Even though only participants who are able to access the internet are able to participate in this survey, this bias is exactly what was desired of the data for respondents of this study, since it provides data about actual internet customers. Although this is a typical internet user in South Africa, the study used tertiary students above their 3rd year of study and employees at a corporate that are full-time employed instead of actual small business owners who have a proven record at managing small businesses in South Africa that are the most likely to want to buy domain management services and web hosting services for their businesses from the e-services website used as treatment. This paves the way for future research to use actual customers of the website.

The study also considered text and video reviews, and did not manipulate review length or other quality indicators. Future studies may wish to compare different types of reviews for the relationships to trust, risk and other relevant cognitions.

6.5 Recommendations for practice

This study confirmed for e-service providers that consumer willingness to purchase and engage with them online depends on their trust and risk perceptions, along with perceptions of benefits. Trust means a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behaviours of another (Rousseau, Sitkin, Burt, & Camerer, 1998). In this case, trust means the website visitor believes the online vendor will keep its promises and commitments to its customers, would do its best to help them and would provide a proficient and effective service. Risk means consumer's belief about the potential uncertain negative outcomes associated with the internet transaction and the severity of the consequences should such negative outcomes occur (Kim et al., 2007). Consumers worry they could purchase an e-service but the website would not deliver thus causing the purchaser to suffer financial loss. Other concerns relate to the protection and security of personal information. Customers are also concerned with Benefits such as usefulness, convenience or monetary savings that the consumer can potentially derive from the e-service. Customers do consider whether e-services are being priced below what can be found among competitors of the vendor. Together trust, risk and benefits determine purchase intentions.

Therefore, to succeed, e-service providers need to focus on trust building and Risk reduction. This requires them to consider the tools through which they can achieve increased trust and reduced risk. This study could not confirm that Customer Reviews supported trust building or reduced risk. Therefore, e-service providers should not consider Customer Reviews as sufficient for trust building and risk reduction. If used, e-service providers should ensure reviews are not overwhelming and they should be cognisant of the fake review problem and the importance of allowing customers to input their own reviews

This study was able to show that Live Chats better at lowering risk and generating trust than Customer Reviews. Therefore, e-service providers should consider investing in website tools and backend service personnel needed to

support Live Chat functions. Recommendations for e-service providers on the use of Live Chats would be to ensure no delay in response, and ensure information quality is good. To ensure information quality is good; well trained employees with vast experience in the organisation may be good choices to be put on Live Chat duty, instead of chatbots (A software application that responds to chats), especially considering the current state of maturity of chatbots.

The research also showed the importance of information quality on the e-services website on reducing risk, there is a strong negative correlation that implies the higher the quality of the information on the website, the lower the risk perception of the website visitor. Information quality was also found to increase the level of trust of the website visitor, so the higher the quality of the information on the website, the higher the Trust levels of the website visitor. So this shows that e-services websites with up to date and reliable information will be more trustworthy and less risky to consumers visiting an e-services website.

Finally, e-service providers should consider the benefits to website visitors as this was also found on this study to increase the willingness to purchase of website visitors. Online providers should consider their value proposition. For example, they could consider putting free to download e-books on their e-services websites that provide additional benefit to the website visitor. Willingness to purchase will be low when there is nothing to benefit in visiting the e-services website.

6.6 Conclusion

This study examined the effectiveness of a Live Chat website tool versus Customer Reviews in increasing trust and lowering risk perceptions of e-commerce website visitors. Results showed that Live Chat was the more effective than Customer Reviews in increasing trust and lowering risk perceptions of website visitors. As a result, the study has established that website tools have differential effects on trust and risk perceptions and online providers are not likely to be successful if relying exclusively on Customer Reviews. Live Chat tools are an important consideration for e-commerce providers with limited budgets and should be part of their online trust building and risk reduction strategy.

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APPENDICES

6.7 Appendix A - Cover Letter

Email Subject: Consumer trust and risk perceptions in e-commerce
Email Body:
Good morning,
We hope this email finds you well.

As a professional, you have been randomly selected and invited to participate in this study at the University of Witwatersrand, Johannesburg. They are investigating the effects of selected website tools on consumer trust and risk perceptions in e-commerce.

The survey will take approximately 15 minutes and 4 pages to complete, and your participation will be highly appreciated. Participation involves browsing a website and then completing a short structured questionnaire. All responses are completely anonymous, and none of the results can be tracked back to any individuals or business. All data collected is strictly confidential and will only be used for the purposes of academia, and not sold for profit.

Please click here or copy the link below onto your favourite browser to proceed to the survey:

https://wits.eu.qualtrics.com/jfe/form/SV_d6J2MtlOTK0T3rn

Survey should only be taken during weekdays.

Thank you in advance for your participation.

6.8 Appendix B – Questionnaire (example from Group D)

0% 100%



As a professional, you have been randomly selected and invited to participate in this study at the **University of Witwatersrand, Johannesburg**.

We are investigating the effects of selected website tools on consumer trust and risk perceptions in e-commerce.

The survey will take approximately **15 minutes to complete**, and your participation will be highly appreciated. Participation involves browsing a website and then completing a short structured questionnaire. All responses are **completely anonymous**, and none of the results can be tracked back to any individuals or business. All **data collected is strictly confidential** and will only be used for the purposes of academia, and not sold for profit.

Survey should only be taken between 9am and 3pm during weekdays.

Your age group

- ◯ 18-24
- ◯ 25-34
- ◯ 35-44
- ◯ 45-54
- ◯ 55-64
- ◯ 65 or older
- ◯ Prefer not to say

Highest level of school you have completed

- ◯ Some high school
- ◯ High school matric
- ◯ Post-matric certificate or diploma
- ◯ Bachelors degree
- ◯ Professional degree e.g. medicine, law
- ◯ Postgraduate degree e.g. Honours or Masters
- ◯ No formal education
- ◯ Prefer not to say

Your gender

- ○ Male
- ○ Female
- ○ Transgender
- ○ Prefer to self-identify
- ○ Prefer not to say

Choose your current status

- ○ Full-time student
- ○ Full-time employee
- ○ Part-time employee
- ○ Self-employed
- ○ Not currently working or studying
- ○ Prefer not to say

Have you ever started a business before or thinking of starting one in the near future?

- ○ Yes
- ○ No
- ○ Maybe
- ○ Prefer not to say

I am familiar with the process of purchasing products or services on the Internet.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Please consider the following **scenario**: You are in the position of a small business owner looking to purchase a website address (URL/Domain) and host your website so that your customers can know about you and your business through the Internet. You come across the services of Sive.Host.

Please visit the website of Sive.Host by clicking the following URL: https://Sive.Host
The Sive.Host website will open in a new browser window. Please spend a few minutes browsing the home page of the service provider's website and then return to answer the short survey. Please do not close this browser window. Once you have browsed the site, please click the next arrow below to continue with the survey.

0% 100%



Based on your perceptions of the Sive.Host website, please answer each of the following questions by selecting the option that most closely reflects your agreement with the following statements.

This Website gives the impression that it keeps promises and commitments.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

This Website would keep its commitments to its customers.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

I believe that this Website has my best interests in mind.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

If I required help, the Website would probably do its best to help me.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

This website is trustworthy.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

Overall, the Website appears as a capable and proficient online service provider.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

This Website gives the impression it is competent and effective in providing online services.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

How would you rate your overall perception of transaction risk from this site?

- ○ Very low risk
- ○ Low Risk
- ○ Somewhat low risk
- ○ Neutral
- ○ Somewhat high risk
- ○ High Risk
- ○ Very high risk

It is likely that products or services purchased on the Website would fail to meet performance expectations.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

It is likely that transacting on this Website will cause one to suffer a financial loss.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

It is likely that the Website will fail to deliver the services promised.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

It is likely that the Website will fail to protect the privacy of the personal information shared with it.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

It is likely that transacting on this Website would not be secure

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

I think using this Website is a convenient way to obtain website addresses and website hosting packages.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

I believe I can save money by using this Website.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

I can save time by using this Website to obtain website addresses and website hosting packages.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

Using this Website allows me to find website address and website hosting packages information quickly.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

I think this Website offers me a wide range of website addresses and website hosting packages

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

0% 100%



I would be willing to enter my credit card information if I was purchasing a website addresss or website package on the Website.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

I would recommend this Website to a friend/colleague.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree

- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

If I required a website address or website hosting package, I would be willing to actually use this Website.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Overall, I think this Website provides useful information.

- ○ Strongly Disagree
- ○ Disagree

- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

The information provided by this Website seems up to date.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

This Website provides sufficient information about its services.

- ◯ Strongly Disagree
- ◯ Disagree

- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

I am satisfied with the information that this Website provides.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

Overall, the information this Website provides is of high quality

- ◯ Strongly Disagree
- ◯ Disagree

- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Prior to taking the survey, were you familiar with this Website vendor.

- ○ Yes
- ○ No
- ○ I am not sure

I prefer to buy from Websites that show customer reviews.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree

- ◯ Agree
- ◯ Strongly Agree

Customer reviews make me feel more comfortable when transacting online.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree
- ◯ Neutral
- ◯ Somewhat Agree
- ◯ Agree
- ◯ Strongly Agree

Reading customer reviews makes me feel less uncertain when transacting online.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Somewhat Disagree

- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Customer reviews make me feel safer in terms of the online transaction.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Customer Reviews on this Website were present.

- ○ Yes
- ○ No

- ◯ I am not sure

Customer Reviews on this Website were depicted using:

- ◯ Text only
- ◯ Text and images
- ◯ Text and images/video
- ◯ There were no customer reviews
- ◯ I am not sure

A Live Chat feature on this Website was present

- ◯ Yes
- ◯ No
- ◯ I am not sure

A Live Chat feature was shown as a speech bubble on the:

- ◯ Bottom left of the screen
- ◯ Bottom middle of the screen
- ◯ Bottom right of the screen
- ◯ There was no live chat feature
- ◯ I am not sure

I prefer to buy from Websites that have a live chat feature.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Live chat features make me feel more comfortable when transacting online.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Using a Live chat feature makes me feel less uncertain when transacting online.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Live chat features make me feel safer in terms of the online transaction.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neutral
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

0% 100%



We thank you for your time spent taking this survey.
Your response has been recorded.
For a copy of the research results, please email Sibusiso Khoza
0604928h@students.wits.ac.za

6.9 Appendix C - Clearance Certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

SCHOOL OF GRADUATE SCHOOL OF BUSINESS ADMINISTRATION ETHICS COMMITTEE
CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: WBS/BA0604928h/925**
PROJECT TITLE	Investigating the effects of selected website tools on consumer trust and risk perceptions in e-commerce
INVESTIGATOR	Mr Sibusiso Khoza
SCHOOL/DEPARTMENT OF INVESTIGATOR	MM (Digital Business)
DATE CONSIDERED	20 July 2020
DECISION OF THE COMMITTEE	Approved unconditionally
RISK LEVEL	MINIMAL RISK
EXPIRY DATE	30 JUNE 2021

ISSUE DATE OF CERTIFICATE 4 August 2020 **CHAIRPERSON** _____
(Dr MDJ Matshabaphala)

cc: Supervisor: Prof. Cohen

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I fully understand the conditions under which I am are authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

Signature _____ **Date** 04 / 08 /2020

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

6.10 Appendix D - SPSS RESULTS

Crosstabs

Highest level of school you have completed * GROUPS Crosstabulation

Count

		GROUPS				
		1	2	3	4	Total
Highest level of school you have completed	2	1	3	2	0	6
	3	3	1	2	1	7
	4	12	3	7	8	30
	5	1	0	0	1	2
	6	10	18	11	17	56
Total		27	25	22	27	101

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.954[a]	12	.244
Likelihood Ratio	17.586	12	.129
Linear-by-Linear Association	2.150	1	.143
N of Valid Cases	101		

a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is .44.

Validity and Reliability Analysis

Principal Components Analysis and Reliability of Trust

Communalities

	Initial	Extraction
This Website gives the impression that it keeps promises and commitments.	1.000	.610
This Website would keep its commitments to its customers.	1.000	.639
I believe that this Website has my best interests in mind.	1.000	.721
If I required help, the Website would probably do its best to help me.	1.000	.729
This website is trustworthy.	1.000	.648
Overall, the Website appears as a capable and proficient online service provider.	1.000	.730
This Website gives the impression it is competent and effective in providing online services.	1.000	.639

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.716	67.375	67.375	4.716	67.375	67.375
2	.674	9.625	77.000			
3	.508	7.255	84.255			
4	.441	6.296	90.551			
5	.336	4.804	95.355			
6	.201	2.866	98.221			
7	.125	1.779	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
This Website gives the impression that it keeps promises and commitments.	.781
This Website would keep its commitments to its customers.	.799
I believe that this Website has my best interests in mind.	.849
If I required help, the Website would probably do its best to help me.	.854
This website is trustworthy.	.805
Overall, the Website appears as a capable and proficient online service provider.	.855
This Website gives the impression it is competent and effective in providing online services.	.799

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
.917	7

Validity and Reliability Analysis

Principal Components Analysis and Reliability of Risk

Communalities

	Initial	Extraction
How would you rate your overall perception of transaction risk from this site?	1.000	.652
It is likely that products or services purchased on the Website would fail to meet performance expectations.	1.000	.604
It is likely that transacting on this Website will cause one to suffer a financial loss.	1.000	.686
It is likely that the Website will fail to deliver the services promised.	1.000	.715
It is likely that the Website will fail to protect the privacy of the personal information shared with it.	1.000	.662
It is likely that transacting on this Website would not be secure	1.000	.744

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.064	67.728	67.728	4.064	67.728	67.728
2	.670	11.167	78.895			
3	.483	8.055	86.949			
4	.351	5.857	92.806			
5	.236	3.939	96.745			
6	.195	3.255	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1

How would you rate your overall perception of transaction risk from this site?	.807
It is likely that products or services purchased on the Website would fail to meet performance expectations.	.777
It is likely that transacting on this Website will cause one to suffer a financial loss.	.828
It is likely that the Website will fail to deliver the services promised.	.846
It is likely that the Website will fail to protect the privacy of the personal information shared with it.	.814
It is likely that transacting on this Website would not be secure	.863

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
.904	6

Validity and Reliability Analysis

Principal Components Analysis and Reliability of Benefits

Communalities

	Initial	Extraction

I think using this Website is a convenient way to obtain website addresses and website hosting packages.	1.000	.549
I believe I can save money by using this Website.	1.000	.730
I can save time by using this Website to obtain website addresses and website hosting packages.	1.000	.810
Using this Website allows me to find website address and website hosting packages information quickly.	1.000	.700
I think this Website offers me a wide range of website addresses and website hosting packages	1.000	.585

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.374	67.474	67.474	3.374	67.474	67.474
2	.700	14.006	81.480			
3	.513	10.263	91.743			
4	.253	5.067	96.810			
5	.159	3.190	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1

I think using this Website is a convenient way to obtain website addresses and website hosting packages.	.741
I believe I can save money by using this Website.	.854
I can save time by using this Website to obtain website addresses and website hosting packages.	.900
Using this Website allows me to find website address and website hosting packages information quickly.	.837
I think this Website offers me a wide range of website addresses and website hosting packages	.765

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability

Scale: ALL VARIABLES

Reliability Statistics

Cronbach's Alpha	N of Items
.877	5

Validity and Reliability Analysis

Principal Components Analysis and Reliability of Willingness to Purchase

Communalities

	Initial	Extraction
I would be willing to enter my credit card information if I was purchasing a website addresss or website package on the Website.	1.000	.617
I would recommend this Website to a friend/colleague.	1.000	.784
If I required a website address or website hosting package, I would be willing to actually use this Website.	1.000	.783

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.184	72.810	72.810	2.184	72.810	72.810
2	.533	17.783	90.593			
3	.282	9.407	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1

I would be willing to enter my credit card information if I was purchasing a website addresss or website package on the Website.	.786
I would recommend this Website to a friend/colleague.	.885
If I required a website address or website hosting package, I would be willing to actually use this Website.	.885

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	101	100.0
	Excluded[a]	0	.0
	Total	101	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.812	3

Validity and Reliability Analysis

Principal Components Analysis and Reliability of Information Quality

Communalities

	Initial	Extraction

Overall, I think this Website provides useful information.	1.000	.703
The information provided by this Website seems up to date.	1.000	.562
This Website provides sufficient information about its services.	1.000	.607
I am satisfied with the information that this Website provides.	1.000	.691
Overall, the information this Website provides is of high quality	1.000	.705

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.267	65.337	65.337	3.267	65.337	65.337
2	.669	13.383	78.720			
3	.520	10.394	89.114			
4	.318	6.368	95.482			
5	.226	4.518	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
Overall, I think this Website provides useful information.	.839

The information provided by this Website seems up to date.	.749
This Website provides sufficient information about its services.	.779
I am satisfied with the information that this Website provides.	.831
Overall, the information this Website provides is of high quality	.839

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	101	100.0
	Excluded[a]	0	.0
	Total	101	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.866	5

ANOVA comparing Treatment Groups on Trust

Descriptives

TRUST

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	Minimum	Maximum

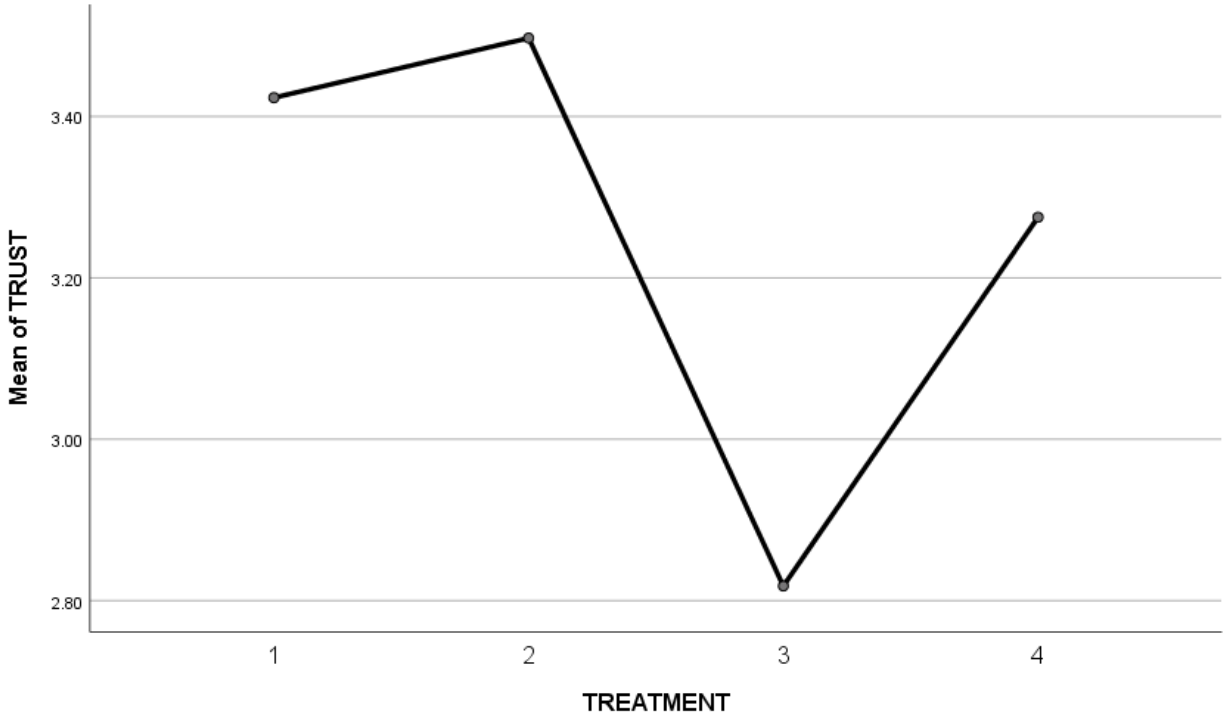
					Lower Bound	Upper Bound		
1	27	3.4233	.86759	.16697	3.0801	3.7665	1.86	5.00
2	25	3.4971	1.12797	.22559	3.0315	3.9627	1.00	5.14
3	22	2.8182	1.44224	.30749	2.1787	3.4576	.29	5.71
4	27	3.2751	1.06310	.20459	2.8546	3.6957	1.14	5.00
Total	101	3.2702	1.13837	.11327	3.0454	3.4949	.29	5.71

ANOVA

TRUST

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.416	3	2.139	1.684	.175
Within Groups	123.172	97	1.270		
Total	129.588	100			

Means Plots



ANOVA comparing Treatment Groups on Risk

Descriptives

RISK

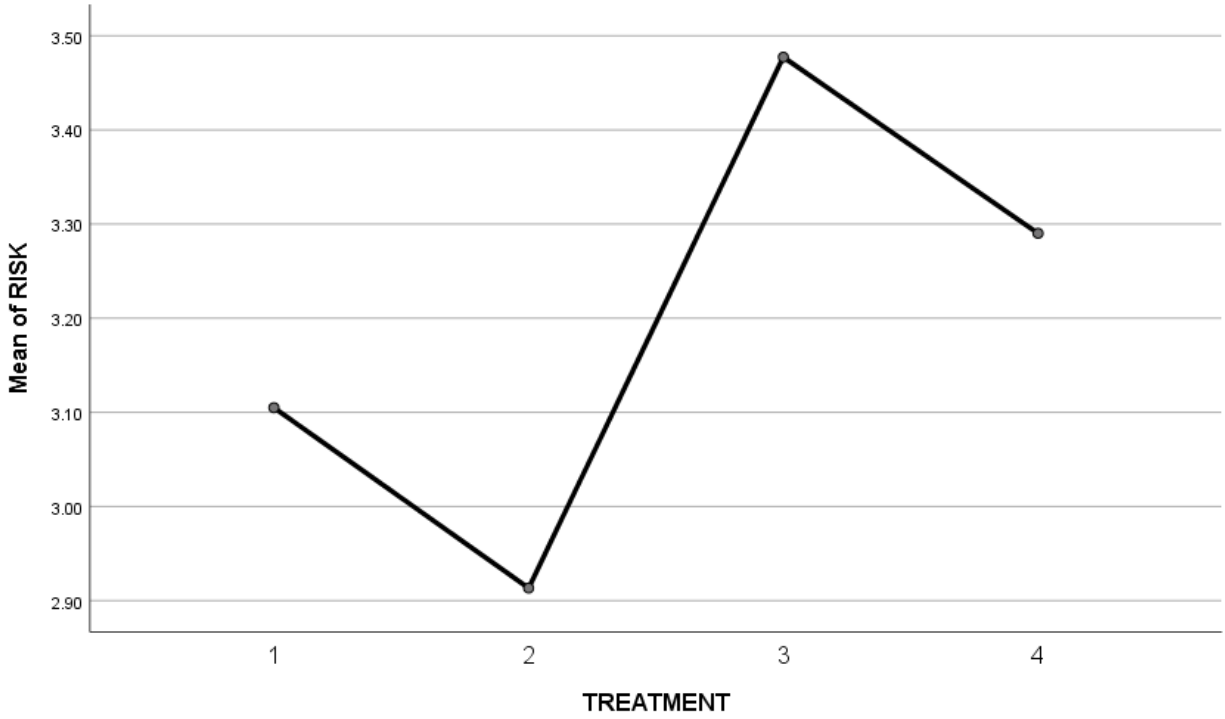
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	27	3.1049	.95087	.18300	2.7288	3.4811	1.67	5.33
2	25	2.9133	1.09515	.21903	2.4613	3.3654	.83	5.17
3	22	3.4773	1.23688	.26370	2.9289	4.0257	2.00	6.00
4	27	3.2901	1.03424	.19904	2.8810	3.6993	1.33	5.67
Total	101	3.1881	1.07901	.10737	2.9751	3.4011	.83	6.00

ANOVA

RISK

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.195	3	1.398	1.209	.311
Within Groups	112.231	97	1.157		
Total	116.426	100			

Means Plots



ANOVA comparing Treatment Groups on Benefit

Descriptives

BENEFIT

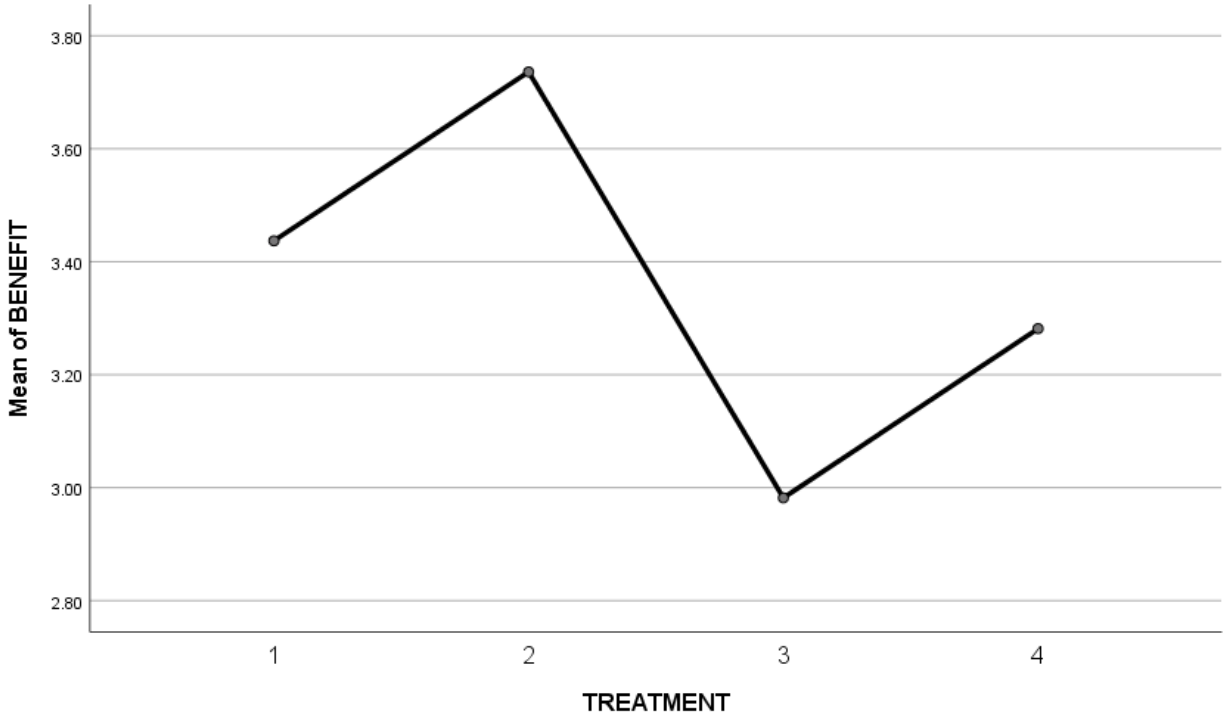
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	27	3.4370	.95923	.18460	3.0576	3.8165	.40	5.20
2	25	3.7360	1.12505	.22501	3.2716	4.2004	.20	5.40
3	22	2.9818	1.46698	.31276	2.3314	3.6322	.00	5.20
4	27	3.2815	.81761	.15735	2.9580	3.6049	1.80	5.00
Total	101	3.3703	1.11297	.11074	3.1506	3.5900	.00	5.40

ANOVA

BENEFIT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.997	3	2.332	1.936	.129
Within Groups	116.874	97	1.205		
Total	123.871	100			

Means Plots



ANOVA comparing Treatment Groups on Intention

Descriptives

INTENTION

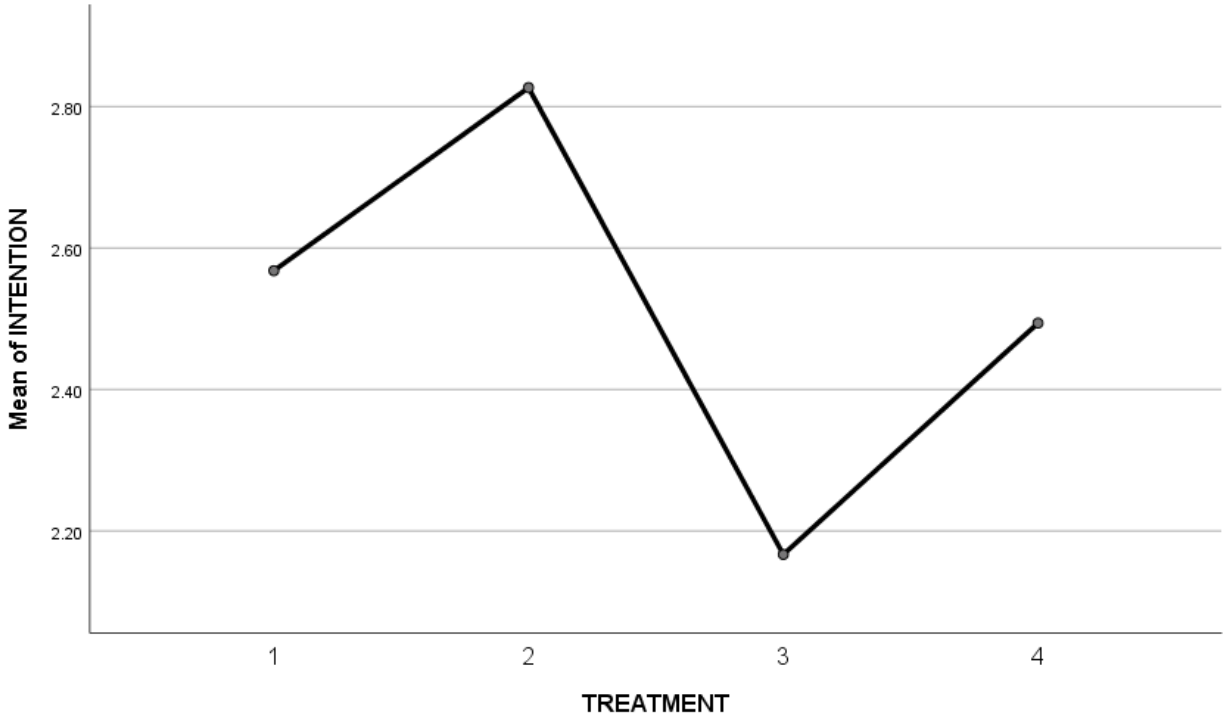
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	27	2.5679	1.33914	.25772	2.0382	3.0976	.00	4.67
2	25	2.8267	1.17898	.23580	2.3400	3.3133	.00	5.00
3	22	2.1667	1.61262	.34381	1.4517	2.8817	.00	5.00
4	27	2.4938	1.26211	.24289	1.9946	2.9931	.00	5.00
Total	101	2.5248	1.34606	.13394	2.2590	2.7905	.00	5.00

ANOVA

INTENTION

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.176	3	1.725	.951	.419
Within Groups	176.012	97	1.815		
Total	181.188	100			

Means Plots



ANOVA comparing Treatment Groups on Information Quality

Descriptives

INFORMATION

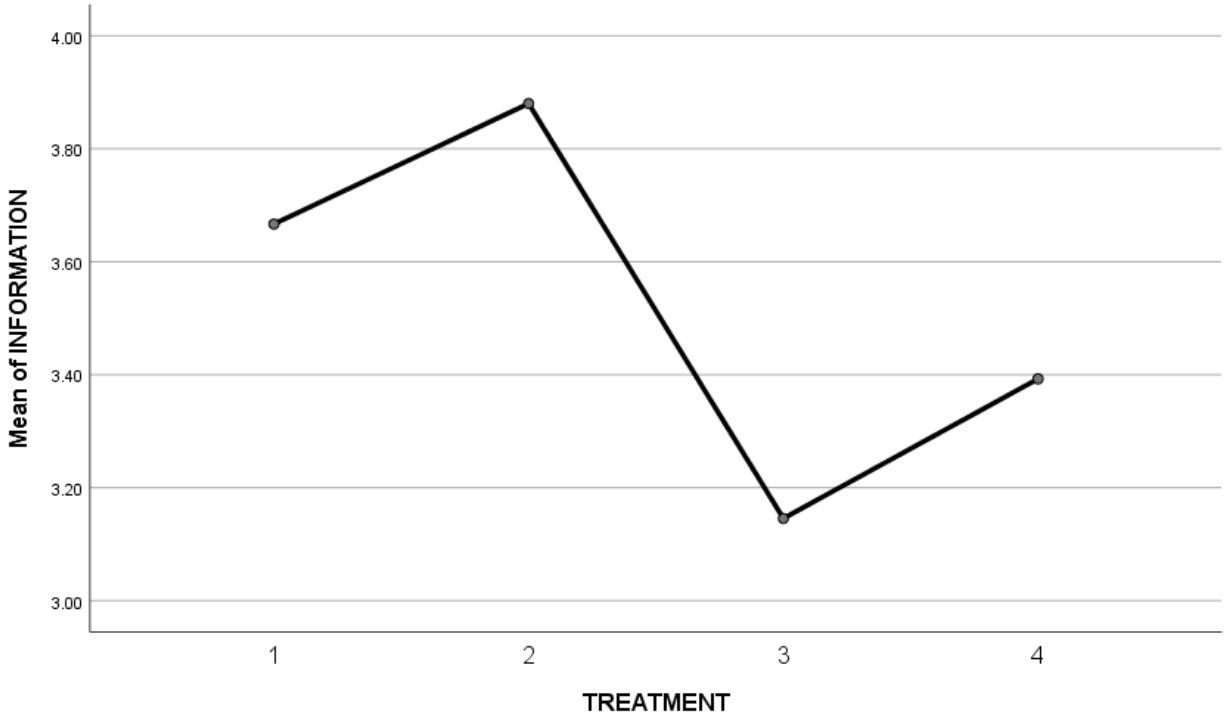
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	27	3.6667	.91315	.17574	3.3054	4.0279	1.60	5.00
2	25	3.8800	1.21655	.24331	3.3778	4.3822	1.00	5.20
3	22	3.1455	.86670	.18478	2.7612	3.5297	2.00	5.00
4	27	3.3926	1.16946	.22506	2.9300	3.8552	1.00	5.40
Total	101	3.5327	1.07639	.10711	3.3202	3.7452	1.00	5.40

ANOVA

INFORMATION

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.329	3	2.443	2.183	.095
Within Groups	108.533	97	1.119		
Total	115.862	100			

Means Plots



Group comparisons on Trust with Post-hoc tests

Descriptives

TRUST

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	27	3.4233	.86759	.16697	3.0801	3.7665	1.86	5.00
2	25	3.4971	1.12797	.22559	3.0315	3.9627	1.00	5.14
3	22	2.8182	1.44224	.30749	2.1787	3.4576	.29	5.71
4	27	3.2751	1.06310	.20459	2.8546	3.6957	1.14	5.00
Total	101	3.2702	1.13837	.11327	3.0454	3.4949	.29	5.71

ANOVA

TRUST

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.416	3	2.139	1.684	.175
Within Groups	123.172	97	1.270		
Total	129.588	100			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: TRUST

	(I) TREATMENT	(J) TREATMENT	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Tukey HSD	1	2	-.07386	.31277	.995	-.8915	.7437
		3	.60510	.32365	.248	-.2410	1.4512
		4	.14815	.30669	.963	-.6536	.9499
	2	1	.07386	.31277	.995	-.7437	.8915
		3	.67896	.32941	.173	-.1822	1.5401
		4	.22201	.31277	.893	-.5956	1.0396
	3	1	-.60510	.32365	.248	-1.4512	.2410
		2	-.67896	.32941	.173	-1.5401	.1822
		4	-.45695	.32365	.495	-1.3030	.3891
	4	1	-.14815	.30669	.963	-.9499	.6536
		2	-.22201	.31277	.893	-1.0396	.5956
		3	.45695	.32365	.495	-.3891	1.3030
Scheffe	1	2	-.07386	.31277	.997	-.9637	.8160
		3	.60510	.32365	.327	-.3157	1.5259
		4	.14815	.30669	.972	-.7245	1.0208
	2	1	.07386	.31277	.997	-.8160	.9637
		3	.67896	.32941	.243	-.2583	1.6162
		4	.22201	.31277	.918	-.6679	1.1119
	3	1	-.60510	.32365	.327	-1.5259	.3157
		2	-.67896	.32941	.243	-1.6162	.2583
		4	-.45695	.32365	.576	-1.3778	.4639
	4	1	-.14815	.30669	.972	-1.0208	.7245
		2	-.22201	.31277	.918	-1.1119	.6679
		3	.45695	.32365	.576	-.4639	1.3778
LSD	1	2	-.07386	.31277	.814	-.6946	.5469
		3	.60510	.32365	.065	-.0373	1.2475
		4	.14815	.30669	.630	-.4606	.7568
	2	1	.07386	.31277	.814	-.5469	.6946
		3	.67896*	.32941	.042	.0252	1.3327
		4	.22201	.31277	.480	-.3987	.8428
	3	1	-.60510	.32365	.065	-1.2475	.0373
		2	-.67896*	.32941	.042	-1.3327	-.0252

		4	-.45695	.32365	.161	-1.0993	.1854
	4	1	-.14815	.30669	.630	-.7568	.4606
		2	-.22201	.31277	.480	-.8428	.3987
		3	.45695	.32365	.161	-.1854	1.0993

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

TRUST

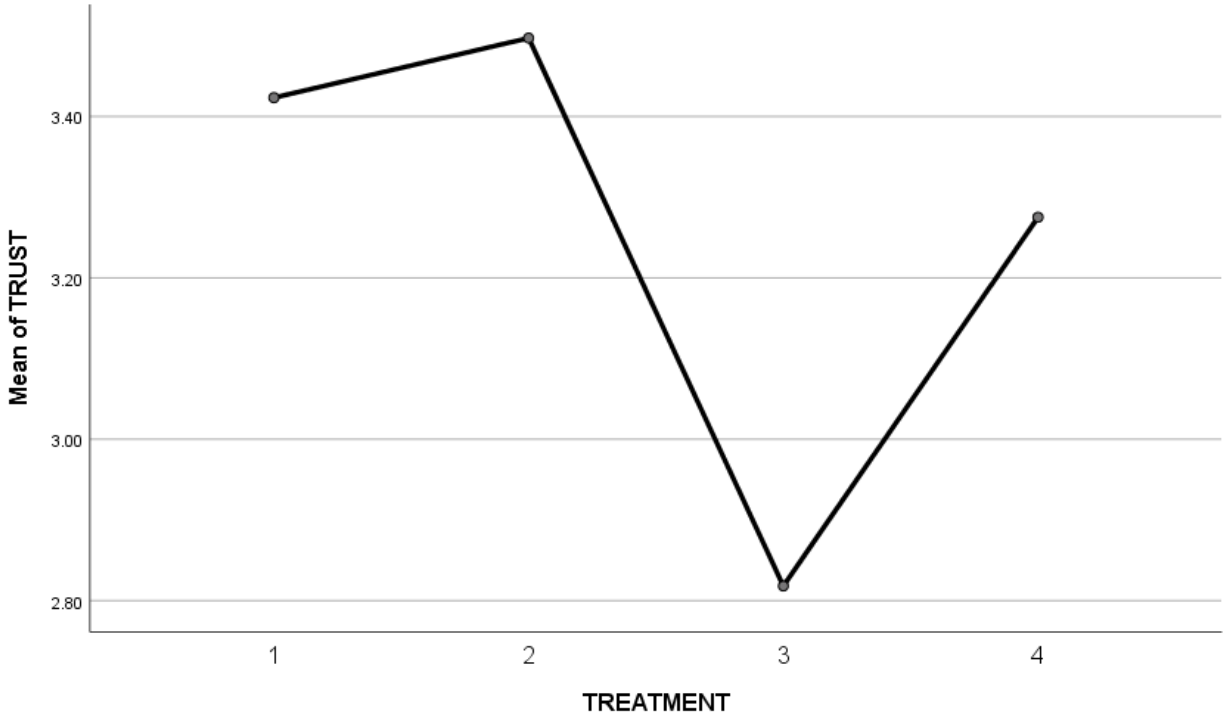
	TREATMENT	N	Subset for alpha = 0.05
			1
Tukey HSD[a,b]	3	22	2.8182
	4	27	3.2751
	1	27	3.4233
	2	25	3.4971
	Sig.		.150
Scheffe[a,b]	3	22	2.8182
	4	27	3.2751
	1	27	3.4233
	2	25	3.4971
	Sig.		.215

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 25.074.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Means Plots



Group comparisons on Risk with Post-hoc tests

Descriptives

RISK

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	27	3.1049	.95087	.18300	2.7288	3.4811	1.67	5.33
2	25	2.9133	1.09515	.21903	2.4613	3.3654	.83	5.17
3	22	3.4773	1.23688	.26370	2.9289	4.0257	2.00	6.00
4	27	3.2901	1.03424	.19904	2.8810	3.6993	1.33	5.67
Total	101	3.1881	1.07901	.10737	2.9751	3.4011	.83	6.00

ANOVA

RISK

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.195	3	1.398	1.209	.311
Within Groups	112.231	97	1.157		
Total	116.426	100			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: RISK

	(I) TREATMENT	(J) TREATMENT	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Tukey HSD	1	2	.19160	.29855	.918	-.5888	.9721
		3	-.37233	.30894	.625	-1.1799	.4353
		4	-.18519	.29275	.921	-.9505	.5801
	2	1	-.19160	.29855	.918	-.9721	.5888
		3	-.56394	.31444	.283	-1.3859	.2580
		4	-.37679	.29855	.589	-1.1572	.4037
	3	1	.37233	.30894	.625	-.4353	1.1799
		2	.56394	.31444	.283	-.2580	1.3859
		4	.18715	.30894	.930	-.6205	.9948
	4	1	.18519	.29275	.921	-.5801	.9505
		2	.37679	.29855	.589	-.4037	1.1572
		3	-.18715	.30894	.930	-.9948	.6205
Scheffe	1	2	.19160	.29855	.938	-.6578	1.0410
		3	-.37233	.30894	.694	-1.2513	.5067
		4	-.18519	.29275	.940	-1.0181	.6478
	2	1	-.19160	.29855	.938	-1.0410	.6578
		3	-.56394	.31444	.365	-1.4586	.3307
		4	-.37679	.29855	.662	-1.2262	.4727
	3	1	.37233	.30894	.694	-.5067	1.2513
		2	.56394	.31444	.365	-.3307	1.4586
		4	.18715	.30894	.947	-.6919	1.0661
	4	1	.18519	.29275	.940	-.6478	1.0181
		2	.37679	.29855	.662	-.4727	1.2262
		3	-.18715	.30894	.947	-1.0661	.6919
LSD	1	2	.19160	.29855	.523	-.4009	.7841
		3	-.37233	.30894	.231	-.9855	.2408
		4	-.18519	.29275	.529	-.7662	.3959
	2	1	-.19160	.29855	.523	-.7841	.4009
		3	-.56394	.31444	.076	-1.1880	.0601
		4	-.37679	.29855	.210	-.9693	.2158
	3	1	.37233	.30894	.231	-.2408	.9855
		2	.56394	.31444	.076	-.0601	1.1880
		4	.18715	.30894	.546	-.4260	.8003

	4	1	.18519	.29275	.529	-.3959	.7662
		2	.37679	.29855	.210	-.2158	.9693
		3	-.18715	.30894	.546	-.8003	.4260
Bonferroni	1	2	.19160	.29855	1.000	-.6125	.9957
		3	-.37233	.30894	1.000	-1.2044	.4598
		4	-.18519	.29275	1.000	-.9737	.6033
	2	1	-.19160	.29855	1.000	-.9957	.6125
		3	-.56394	.31444	.456	-1.4109	.2830
		4	-.37679	.29855	1.000	-1.1809	.4273
	3	1	.37233	.30894	1.000	-.4598	1.2044
		2	.56394	.31444	.456	-.2830	1.4109
		4	.18715	.30894	1.000	-.6450	1.0193
	4	1	.18519	.29275	1.000	-.6033	.9737
		2	.37679	.29855	1.000	-.4273	1.1809
		3	-.18715	.30894	1.000	-1.0193	.6450

Homogeneous Subsets

RISK

	TREATMENT	N	Subset for alpha = 0.05
			1
Tukey HSD[a,b]	2	25	2.9133
	1	27	3.1049

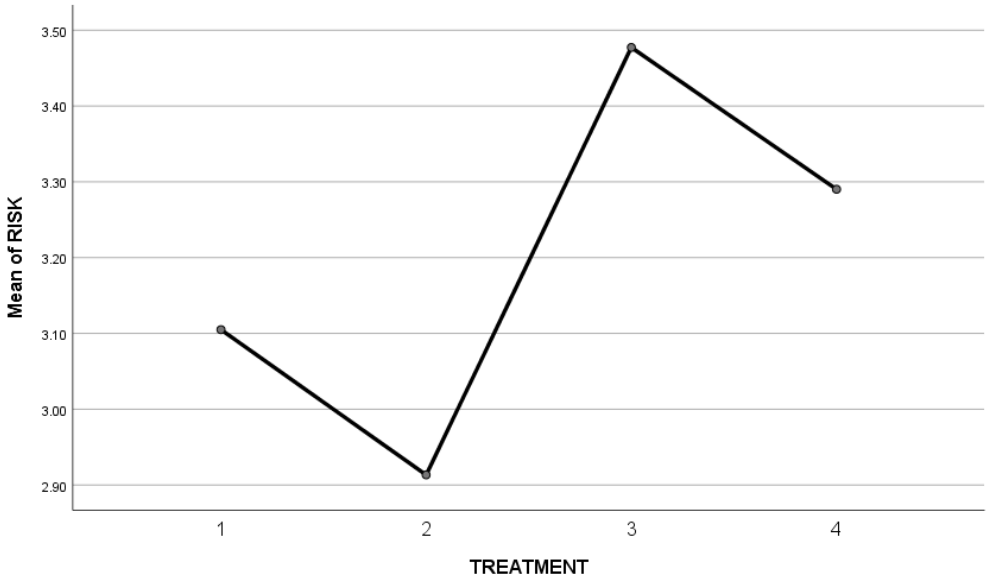
	4	27	3.2901
	3	22	3.4773
	Sig.		.254
Scheffe[a,b]	2	25	2.9133
	1	27	3.1049
	4	27	3.2901
	3	22	3.4773
	Sig.		.333

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 25.074.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Means Plots



Comparison of Treatment Groups on Demographic variables

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Your age group * TREATMENT	101	100.0%	0	0.0%	101	100.0%

Highest level of school you have completed * TREATMENT	101	100.0%	0	0.0%	101	100.0%
Your gender * TREATMENT	101	100.0%	0	0.0%	101	100.0%
Choose your current status * TREATMENT	101	100.0%	0	0.0%	101	100.0%
Have you ever started a business before or thinking of starting one in the near future? * TREATMENT	101	100.0%	0	0.0%	101	100.0%
I am familiar with the process of purchasing products or services on the internet. * TREATMENT	101	100.0%	0	0.0%	101	100.0%
Prior to taking the survey, were you familiar with this Website vendor. * TREATMENT	101	100.0%	0	0.0%	101	100.0%

Your age group * TREATMENT

Crosstab

Count

		TREATMENT				
		1	2	3	4	Total
Your age group	1	4	3	3	5	15
	2	11	10	6	12	39
	3	6	7	6	9	28
	4	2	3	7	1	13
	5	4	1	0	0	5
	6	0	1	0	0	1
Total		27	25	22	27	101

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	21.380[a]	15	.125
Likelihood Ratio	20.773	15	.144
Linear-by-Linear Association	1.797	1	.180

N of Valid Cases	101			

a. 16 cells (66.7%) have expected count less than 5. The minimum expected count is .22.

Highest level of school you have completed * TREATMENT

Crosstab

Count

		TREATMENT				
		1	2	3	4	Total
Highest level of school you have completed	2	1	3	2	0	6
	3	3	1	2	1	7
	4	12	3	7	8	30
	5	1	0	0	1	2
	6	10	18	11	17	56
Total		27	25	22	27	101

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.954[a]	12	.244
Likelihood Ratio	17.586	12	.129
Linear-by-Linear Association	2.150	1	.143
N of Valid Cases	101		

a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is .44.

Your gender * TREATMENT

Crosstab

Count

		TREATMENT				
		1	2	3	4	Total
Your gender	1	16	12	12	9	49
	2	11	13	10	17	51
	5	0	0	0	1	1
Total		27	25	22	27	101

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.294[a]	6	.391
Likelihood Ratio	6.281	6	.392
Linear-by-Linear Association	4.153	1	.042
N of Valid Cases	101		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is .22.

Choose your current status * TREATMENT

Crosstab

Count

		TREATMENT				
		1	2	3	4	Total
Choose your current status	1	10	6	6	9	31
	2	13	12	11	12	48
	3	2	0	1	2	5
	4	2	6	4	2	14
	5	0	1	0	0	1
	6	0	0	0	2	2
Total		27	25	22	27	101

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.147[a]	15	.441
Likelihood Ratio	15.828	15	.394
Linear-by-Linear Association	.654	1	.419
N of Valid Cases	101		

a. 16 cells (66.7%) have expected count less than 5. The minimum expected count is .22.

Have you ever started a business before or thinking of starting one in the near future? * TREATMENT

Crosstab

Count

		TREATMENT				
		1	2	3	4	Total
Have you ever started a business before or thinking of starting one in the near future?	1	27	25	22	27	101
Total		27	25	22	27	101

Chi-Square Tests

	Value
Pearson Chi-Square	.[a]
N of Valid Cases	101

a. No statistics are computed because Have you ever started a business before or thinking of starting one in the near future? is a constant.

I am familiar with the process of purchasing products or services on the internet. * TREATMENT

Crosstab

Count

		TREATMENT				
		1	2	3	4	Total
I am familiar with the process of purchasing products or services on the internet.	0	4	2	0	2	8
	1	1	1	0	1	3
	3	2	2	1	2	7
	4	2	2	1	3	8
	5	7	8	8	7	30
	6	11	10	12	12	45
Total		27	25	22	27	101

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.454[a]	15	.971
Likelihood Ratio	8.505	15	.902
Linear-by-Linear Association	1.356	1	.244
N of Valid Cases	101		

a. 16 cells (66.7%) have expected count less than 5. The minimum expected count is .65.

Prior to taking the survey, were you familiar with this Website vendor. * TREATMENT

Crosstab

Count

		TREATMENT				
		1	2	3	4	Total
Prior to taking the survey, were you familiar with this Website vendor.	1	27	25	22	27	101
Total		27	25	22	27	101

Chi-Square Tests

	Value
Pearson Chi-Square	.[a]
N of Valid Cases	101

a. No statistics are computed because Prior to taking the survey, were you familiar with this Website vendor. is a constant.

Correlations

Descriptive Statistics

	Mean	Std. Deviation	N
INFORMATION	3.5327	1.07639	101
TRUST	3.2702	1.13837	101
RISK	3.1881	1.07901	101

Correlations

		INFORMATION	TRUST	RISK
INFORMATION	Pearson Correlation	1	.703**	-.655**
	Sig. (2-tailed)		.000	.000
	N	101	101	101
TRUST	Pearson Correlation	.703**	1	-.733**
	Sig. (2-tailed)	.000		.000
	N	101	101	101
RISK	Pearson Correlation	-.655**	-.733**	1
	Sig. (2-tailed)	.000	.000	
	N	101	101	101

**. Correlation is significant at the 0.01 level (2-tailed).

Descriptive Statistics

	Mean	Std. Deviation	N
TRUST	3.2702	1.13837	101
RISK	3.1881	1.07901	101
BENEFIT	3.3703	1.11297	101
INTENTION	2.5248	1.34606	101

Correlations

		TRUST	RISK	BENEFIT	INTENTION
TRUST	Pearson Correlation	1	-.733**	.689**	.772**
	Sig. (2-tailed)		.000	.000	.000
	N	101	101	101	101
RISK	Pearson Correlation	-.733**	1	-.699**	-.728**
	Sig. (2-tailed)	.000		.000	.000
	N	101	101	101	101

BENEFIT	Pearson Correlation	.689**	-.699**	1	.745**
	Sig. (2-tailed)	.000	.000		.000
	N	101	101	101	101
INTENTION	Pearson Correlation	.772**	-.728**	.745**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	101	101	101	101

**. Correlation is significant at the 0.01 level (2-tailed).