The effects of perceived control and regulatory focus on outcomes of online interactions.

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DECLARATION

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

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ABSTRACT

The present study focuses on understanding the effects of customers' perception of control and regulatory focus on outcomes of online interactions. This thesis aims to examine how customers' perception of control over website interactions influences customers' emotions, trust, and intended behaviour towards a company, as well as to establish the role of customers' regulatory focus impacting the relationships. This research argues that customers' perception of control, customers' emotions, trust, intended behaviour and regulatory focus orientation have been studies in isolation and more research is needed to fill knowledge gap on understanding the dynamics between the constructs. Hence, drawing upon the literature in online consumer behaviour, and specifically on Theory of Planned Behaviour, Cognitive Appraisal Theory, Trust literature, and Regulatory Focus Theory, this study extends the Stimuli-Organism-Response (S-O-R) Framework by conceptualising that customers' perception of control over website interactions shapes customers' emotions, and drives trust and intended behaviour towards a company, whilst customers' regulatory focus orientation moderates these relationships. To achieve the research objectives, the PhD thesis conducts a quantitative survey research design in the context of buying a mobile phone contract on Vodafone's website. Data was collected from a sample of 300 Vodafone respondents (18+). This research adopts structural equation modelling partial least squares to analyse the data. Moderating effect of customers' regulatory focus is examined using multigroup Analysis. The findings demonstrate three important theoretical contributions. First, the findings determine that customers' perception of control over website interactions has stronger associations with customers' emotions rather than customers' trust towards a company. Next, this thesis establishes that customers' perception of control over website interactions influence intended behaviour towards a company only through mediating constructs of customers' emotions and trust. Finally, the research shows that customers' regulatory focus moderates the relationship between customers' perception of control over website interactions and negative emotions, in addition to moderating the relationship between negative emotions and trust towards a company. These novel findings have important theoretical and managerial contributions. This thesis has some limitations, such as the study was conducted in particular context with specific set of customers. This creates a challenge of generalisability of the findings to other context. This PhD thesis addresses the potential limitations and suggests potential future research avenues.

To my Grandfather.

Леньков Валерий Павлович.

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To my Family & my Husband.

Their enormous support carried me through.

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1 Introduction

This chapter aims to provide an overview of this PhD research. The chapter begins with introducing the research, followed by presenting the research background and research context. Then, research questions, aims, and objectives are outlined. Next, research contributions are discussed. The chapter finishes by revealing this thesis's structure.

1.1 Introduction

Imagine you have two people shopping on the same website for a mobile phone contract. They both go through the same website experience. However, one gets upset with a mobile phone provider by feeling like they do not have control over their interactions, become angry and potentially abandon the interaction. On another hand, another one continues the interaction but with a decrease in trust towards a company, even though they also feel like they do not have control over the website. What can explain the differences between both customers?

The underpinning interest of this research is sparked by trying to understand how customers' emotions, trust and intended behaviour towards a company are influenced by the perception of control over website experience and differ upon customers' personality characteristics. Hence, this research aims to understand how customers' perception of control over website interactions shapes customers' emotions and drives trust and intended behaviour towards a company, as well as explore how customers' regulatory focus orientation affects these relationships.

To do so, this study designs a conceptual model (see Chapter 3) based on existing literature (see Chapter 2) which is empirically tested in a mobile network context (see Chapter 4 and Chapter 5). The conceptual model is developed through an in-depth analysis of existing literature in areas of online consumer behaviour, website interactions, and regulatory focus theory. The researcher empirically tests the conceptual model by conducting a quantitative survey study amongst 300 UK customers. Taken together, this research aspires to contribute to the existing body of knowledge and theory by (Chapter 6 and Chapter 7):

- Investigating how customers' perception of control impacts customers' emotions, trust and intended behaviour towards a company.
- Exploring what role regulatory focus plays in influencing relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company.

To fully understand the reasons behind the research, the next sub-section focuses on reviewing the research background.

1.2 Research background

Digitalisation has significantly changed consumer behaviour (Anderson *et al.*, 2007). Tech-savvy, connected consumers value convenience, speed and accessibility where they can interact with an organisation through several clicks (Shankar *et al.*, 2011). As digital technology continues to evolve, the key assumption for adopting these technologies is to reduce costs by transforming a firm's service landscapes through the delivery of more efficient interactions (Homburg *et al.*, 2017). On the other hand, the instant availability of goods and services makes it harder for firms to sustain relationships with customers, forcing organisations to focus on the delivery of high-quality online interactions (Chen and Popovich, 2003). To stay competitive, firms have realised the importance of delivering not only efficient but also valuable and memorable interactions with consumers (Bolton *et al.*, 2018).

One area of focus to deliver valuable and memorable interactions to customers is through fostering customers' sense of control during website experiences. In consumer behaviour research, a perception of being in control is considered to be a desirable psychological state which increases customers' higher self-efficacy beliefs, and results in increases in cognitive, affective, and behavioural responses towards a company (Liu and Shrum, 2002). Building upon the theory of planned behaviour, customers' perception of control is also considered to be a predictor of intended behaviour (Ajzen, 1991). Taking this theory further to the online environment domain, the existing literature points out the importance of customers' perception of control over website interactions in shaping customers' emotions, trust and intended behaviour towards a company (Novak *et al.*, 2000; Rose *et al.*, 2012; Lambillotte *et al.*, 2022).

The existing research argues that the company can deliver different levels of control on their website through different mechanisms such as website navigation, the pace of the interactions, and the website content (Wu, 2005; Wu and Lin, 2012). However, the literature also debates that whilst organisations can deliver different levels of active control, customers' perceptions of control over the process are more important as it would more likely influence customers' emotions, trust, and intended behaviour (Song and Zinkhan, 2008). Supporting this, Manganari *et al.* (2014) argue that a higher perception of control online would lead to positive behavioural outcomes towards a company, whereas a lower perception of control would result in negative emotions and decreases in trust towards a company. Yet, whilst the important role of customers'

perception of control over website interactions is well-established in the literature, the researcher has identified that there are gaps in the literature when bringing together customers' emotions, trust and intended behaviour (Dailey, 2004; Van Noort *et al.*, 2012; Kirk *et al.*, 2015). More specifically, the existing research questions what the role of customers' emotions is when assessing the influence of customers' perception of control over website interactions on driving intended behaviour towards a company (Lee and Turban, 2001; Bart *et al.*, 2005; Collier and Sherrell, 2010; Manganari *et al.*, 2014). Moreover, current research is conflicted on the strength of the relationships between customers' perception of control over website interactions and intended behaviour towards a company online (Collier and Sherrell, 2010; Rose *et al.*, 2012; Manganari *et al.*, 2014). Hence, this research addresses this gap by determining how customers' perception of control over website interactions impacts customers' emotions, trust and intended behaviour towards a company.

Furthermore, the literature establishes the importance of understanding customers' characteristics to deliver more user-friendly online interactions which in turn can contribute to increasing customers' emotions, trust, and intended behaviour towards a company (Amichai-Hamburger *et al.*, 2004). For instance, in their extensive research focusing on understanding perceptions of control online, Kirk *et al.* (2015) postulate that the effects of perception of control during website experiences on trust are stronger for females than males due to their risk-aversion characteristics. Therefore, it is argued depending on customers' characteristics, customers' responses to the perception of control online differs (Wu and Lin, 2006; Chang and Wang, 2008; Wu and Lin, 2012; Manganari *et al.*, 2014; Kirk *et al.*, 2015; Joosten *et al.*, 2016).

The current research adopts a regulatory focus lens to explore how customers' differences impact relationships between customers' perception of control over website interactions, customers' emotions, trust and intended behaviour. Originally developed by Higgins *et al.* (2001), regulatory focus theory posits that people are differentiated based on two motivational orientations: promotion and prevention. Individuals with a promotion orientation focus on reaching positive outcomes through achievement and growth, whereas individuals with a prevention orientation focus on avoiding negative outcomes through minimising risks (Chernev, 2004a). The regulatory focus theory is adopted as a theoretical lens for understanding how customers' personality characteristics influence relationships between customers' perception of control, customers' emotions, trust, and intended behaviour as existing research determines that those concepts have been studied in isolation (Semin *et al.*, 2005; Wang and Lee, 2006; Roy, 2017; Dodoo and Wu, 2021). For instance, regulatory focus theory is an

interesting lens to understand complex relationships in this study, as it lays the foundation of customers' chronic motivational decision-making drivers. Thus, this study aims to close this gap by examining how customers' regulatory focus influences the relationships between customers' perception of control over website interactions, customers' emotions, trust and intended behaviour towards a company.

To meet this research's aim, the telecommunication industry has been chosen as the research context for this study. The reasons behind this decision are discussed below.

1.3 Research context

Telecommunications, and particularly buying a mobile phone from a mobile network provider is chosen as the research context for this study. The in-depth discussion on research context is to follow in Chapter 4 of this PhD thesis. Briefly speaking, the telecom industry is chosen for several reasons. Firstly, the telecom industry has been in decline since 2016 (MarketLine, 2017; Mintel, 2022). Switching behaviour in this industry has become a norm, with customers always on the lookout for a better deal (Mintel, 2022). Alternatively, with the rise of digital technologies, digital channels have become one of the main channels for mobile network providers to interact with customers (Mintel, 2022). Hereafter, it became vital for mobile network providers to deliver meaningful online interactions to ensure the attraction and retention of existing customers.

Secondly, in the UK, most of the major telecom providers have been going through digital transformations becoming digital-first organisations (MarketLine, 2017; Mintel, 2022). This indicates mobile network providers invest a lot in ensuring that they deliver high-quality interactions to customers. Hence, making this industry an interesting context for research.

Furthermore, for this study, the researcher hoped to collaborate with Vodafone UK, one of the biggest UK telecom providers to examine new digital-first website features and their influence on customers' perception of control over website interactions, emotions, trust, and intended behaviour towards Vodafone. The collaboration would have assisted the researcher in making empirical and methodological contributions by measuring the real customers' behaviour and by conducting real-life experiments. For Vodafone, the collaboration should have resulted in the researcher creating a digital segmentation which Vodafone could implement to deliver tailored interactions for its customers. Whilst the researcher was able to convince Vodafone to collaborate on this study, the full collaboration did not come to life. The researcher was part of

Vodafone UK UX Research Team for circa 6 months. However, halfway through the collaboration, Vodafone experienced changes in strategic objectives and commercial priorities. Due to PhD time constraints, it was no longer feasible for the researcher to conduct the study with Vodafone.

Nonetheless, the researcher decided to conduct its study amongst Vodafone customers as Vodafone was still interested in the output of this research at the time. Additionally, Vodafone has been known for bad customer service and high-switching behaviour, making it interesting to understand how customers' perception of control over website interactions and regulatory focus can shape emotions and drive trust and intended behaviour towards Vodafone (FT, 2018; Mintel, 2022).

1.4 Research aims and questions

PhD thesis aims to provide up-to-date research and contribute to existing knowledge in the field of online customer behaviour. Building upon an extensive literature review (Chapter 2), this research aim is to close an existing literature gap on how customers' perception of control over website interactions impacts customers' emotions, trust, and intended behaviour towards a company and what the role of regulatory focus is.

Hereafter, there are two key research questions:

1. How does customers' perception of control over website interactions impact customers' emotions, trust and intended behaviour towards a company?
2. What is the role of customers' regulatory focus orientation in influencing the relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company?

1.5 Intended research contribution

Building upon an extensive literature review, Table 1 outlines literature gaps and the intended theoretical contribution of this study.

Literature gap	Intended contributions
The influence of customers' perception of control over website interactions on shaping customers' emotions and driving trust towards a company.	This study aims to add to the existing literature by establishing the important role of emotions in exploring the notion of customers' perception of control over website interactions (Beaudry and Pinsonneault, 2010; Rose *et al.*, 2012). Building upon Cognitive Appraisal theory, this study focuses on adding to existing knowledge by providing empirical evidence that customers' perception of control has a stronger effect on customers' emotions rather than on trust during website interactions (Folkman *et al.*, 1986; Lazarus, 1991a).
The influence of customers' perception of control over website interactions on driving intended behaviour towards a company.	This research aims to contribute to knowledge by discovering how customers' perception of control over website interactions drives intended behaviour towards a company. Building upon existing literature, this study also focuses on determining the mediating role of customers' emotions and trust towards a company (Collier and Sherrell, 2010; Rose *et al.*, 2012; Manganari *et al.*, 2014).
The role of regulatory focus on investigating the relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour.	This study aims to add to the existing knowledge by examining how customers' regulatory focus orientations moderate the relationships between customers' perception of control over website interactions, customers' emotions, trust and intended behaviour towards a company(Dailey, 2004; Wu *et al.*, 2015).

Table 1. Overview of key literature gaps and intended contributions of this PhD thesis.

Following data collection and data analysis (Chapter 5), the researcher makes the following contribution to theory:

1) The first key contribution of this thesis is a discovery that customers' perception of control over website interactions has a stronger association with customers' emotions rather than with trust. Building upon the discussion in Chapter 6, this finding contributes to the existing body of knowledge in several ways. From a theoretical perspective, the results contribute to online consumer behaviour literature by reinforcing the importance of understanding customers' emotions as part of website experiences (Éthier *et al.*, 2008; Beaudry and Pinsonneault, 2010; Ishii and Markman, 2016). As discussed, the relationship between customers' perception of control over website interactions and trust is well-established in the literature. However, less is known in existing literature about how customers' perception of control shapes customers' emotions during website interactions (Rose *et al.*, 2012). Hence, this study establishes that customers' perception of control over website interactions has a stronger impact on customers' emotions than trust. This contributes to online consumer

behaviour literature and broadens the current understanding of the effects of customers' perception of control over website interactions on shaping customers' emotions.

2) The second key contribution of this thesis is a recognition that customers' perception of control over website interactions influences intended behaviour towards a company through mediating constructs of emotions and trust. This study found that customers' perception of control over website interactions doesn't directly affect intended behaviour towards a company but does so through influencing customers' emotions and trust first. In other words, the research shows that customers' perception of control over website interactions impacts customers' emotions and trust, which in turn drives intended behaviour towards a company. This result contributes to existing online consumer behaviour literature by joining the stream of research which argues that the effect of customers' perception of control over website interactions on intended behaviour towards a company is stronger through mediating variables of emotions and trust (Dailey, 2004; Van Noort *et al.*, 2012; Kirk *et al.*, 2015). Furthermore, the finding challenges the existing literature and determines that customers' perception of control over website interactions doesn't impact intended behaviour directly, but only through mediating links of customers' emotions and trust. Hereafter, the study adds to the theory by identifying that both customers' emotions and trust increase the impact of customers' perception of control on intended behaviour towards a company during website interactions.

3) Lastly, the third contribution of this thesis refers to acknowledging the moderating role of customers' regulatory focus. Data analysis in Chapter 5 and further discussion in Chapter 6 reveals that not all hypotheses relating to the moderating effect of regulatory focus have been supported. However, this study still contributes to regulatory focus theory by establishing that for customers with a prevention-focus orientation, customers' perception of control over website interactions has a stronger influence on decreasing negative emotions towards a company, compared to customers with a promotion-focus orientation. As prevention-focused customers put more emphasis on security and risk avoidance, the perception of control over website experience assists them in decreasing negative emotions towards a company (Lee and Aaker, 2004; Lee *et al.*, 2010; Ashraf and Thongpapanl, 2015; Barari *et al.*, 2020). On another hand, the impact of negative emotions on decreasing trust towards a company is stronger for

promotion-focus customers rather than prevention-focus customers. The potential explanation lies within theorising that experiencing negative emotions goes in misalignment with promotion-focus orientation and as a result of that, customers with promotion-focus experience a decrease in trust towards a company (Freitas and Higgins, 2002; Avnet and Higgins, 2006; Khajehzadeh *et al.*, 2014). This challenges the current understanding of promotion-focus orientation and calls for further research to fully understand the interplay between promotion-focus, negative emotions, and trust towards a company.

1.6 Thesis structure

This thesis consists of seven chapters in total. The first chapter presents this thesis's research background, aims, context and contributions. The structure and activities undertaken in this thesis are the following:

Chapter 2. The second chapter is the literature review, where the researcher focuses on conducting an in-depth review of existing literature. Here, the researcher aims to evaluate the existing literature in areas of website experiences, customers' perception of control, customers' emotions, trust, intended behaviour and regulatory focus theory. The chapter starts by critically discussing the research evolution of understanding website experiences. Next, the researcher reviews the literature on identifying the role of customers' perception of control over website interactions. Following this, the literature on the role of emotions, trust, and intended behaviour towards a company during website interactions is discussed. Next, the researcher critically evaluates the literature on regulatory focus orientation. The literature review chapter finishes by outlining the key literature gaps that this research aims to address.

Chapter 3. The third chapter focuses on the development of the theoretical framework, conceptual model, and relevant research hypotheses. Specifically, the researcher draws upon existing literature and develops a conceptual model which is later empirically tested. The conceptual model postulates that customers' perception of control over website interactions influences customers' emotions, trust and intended behaviour and regulatory focus moderates those relationships.

Chapter 4. The fourth chapter focuses on outlining the research methodology of this study. Here, the researcher discusses the research philosophy, followed by critically reviewing the chosen research strategy. The chapter finishes by outlining data analysis methods.

Chapter 5. The fifth chapter of the thesis is about data analysis and hypotheses testing. Here, the researcher focuses on analysing the data with the help of statistical techniques.

Chapter 6. The sixth chapter critically discusses the results in line with existing literature. The chapter's goal is to establish this thesis's key theoretical and practical contributions based on literature and collected data.

Chapter 7. The final chapter summarises this study by presenting the theoretical and practical implications of this research. Next, the researcher discusses limitations and suggests future research opportunities. The chapter concludes by providing personal reflection.

1.7 Conclusion

This study argues that there is not enough conceptual and empirical evidence to establish how customers' perception of control over website interactions and regulatory focus shapes customers' emotions and drives trust and intended behaviour towards a company. Specifically, this study postulates that all concepts under investigation have been studied in isolation, thereby creating a gap in knowledge that this thesis aims to address.

The first chapter provided an overview of this thesis's research background and research context. It has also outlined this study's aim and research questions. Next, the chapter summarised research contributions and revealed the thesis structure. As per its structure, the next section of the thesis is the literature review.

2 Literature review

This chapter provides a critical analysis of the existing literature. This chapter aims to recognise literature gaps through critically evaluating existing research in the field of online consumer behaviour. To do so, this chapter consists of three major sections. Firstly, the notion of customers' perception of control over website interactions and its role in website experiences is discussed. Next, the researcher moves on to provide a comprehensive literature review of customers' emotions, trust, and intended behaviour towards a company. Following this, the role of regulatory focus is presented and explored. The literature review section finishes by summarising key literature gaps.

2.1 Introduction

The process of digitalisation has changed customers' behaviours considerably through the integration of digital technology in nearly every aspect of customers' lives (Zeithaml *et al.*, 2006). Omnichannel strategies enable customers to interact with a company 24/7 through various digital touchpoints such as the company's website or social media accounts (Bolton *et al.*, 2018). Therefore, digital technology has been used as a primary competitive advantage for organisations (Zeithaml *et al.*, 2006). However, it has also created a challenge for companies to retain customers as switching behaviour becomes more prominent (Rose *et al.*, 2012; Batat, 2019). To address this issues, organisations are now treating digital technology as the enabler for creating meaningful interactions with their customers (Bolton *et al.*, 2018; Huang *et al.*, 2019). Thus, understanding how to deliver high-quality, efficient online interactions to customers has become a topic of research for several decades (Novak *et al.*, 2000; Gefen *et al.*, 2003b; Rose *et al.*, 2012; Bolton *et al.*, 2018).

One technological enabler is a company's website that customers can access at any point in time and interact with the company's assets which in turn evokes behavioural responses towards this company (Wu *et al.*, 2013; Gao and Bai, 2014; McLean and Osei-Frimpong, 2017). Customer interactions with a website are a key tool for organisations to build relationships with customers and to drive customer retention (Gefen and Straub, 2004). There are two streams of research focusing on understanding how customers interact with a website. On one hand, human-computer interaction (HCI) literature aims to understand how different

website characteristics influence customers' evaluations of the website and subsequent intent to use this website (Gefen and Straub, 2004; Wang *et al.*, 2011; McLean and Osei-Frimpong, 2017). On another hand, online service encounters literature focuses more on exploring how customers' interactions with a website shape customers' responses towards a company (Jiang *et al.*, 2010; Kim and Lennon, 2013; Manganari *et al.*, 2014; Kühn and Petzer, 2018). Whilst both literature streams contribute to existing knowledge in the field of online consumer behaviour, this research aims to add to the existing research from the perspective of online service encounters. Existing literature in the area of online service encounters, particularly examining how customers' perception of control shapes customers' emotions, trust and intended behaviour is fragmented (Wu *et al.*, 2013; Manganari *et al.*, 2014; Bolton *et al.*, 2018; Wu, 2019). Existing research argues that customers' perception of control, customers' emotions, trust and intended behaviour have been studied in isolation, and more research is needed to understand those complex relationships (Rose *et al.*, 2012; Manganari *et al.*, 2014; Wu, 2019). Therefore, it is imperative to understand how interactions with the website assist organisations in creating emotional, meaningful connections with customers which can aid in increasing trust and intended behaviour towards a company.

Furthermore, existing literature determines that more research is needed to understand how customers' personality characteristics might affect customers' emotions, trust and intended behaviour towards a company as a response to the website's interactions (Jani and Han, 2015). For instance, Ashraf and Thongpapanl (2015) establish that customers with different regulatory focus orientations have higher purchase intentions when presented with different types of website content creating an avenue for further research. Thus, this study aims to close this gap by exploring how customers' perception of control over website interactions impacts shaping customers' emotions and driving trust and intended behaviour towards a company as well as understanding the role of regulatory focus. To do so, the next sub-section focuses on discussing the concept of customers' perception of control over website interactions in more detail.

2.2 Research evolution of understanding website experiences

Research on understanding website experiences is rooted in traditional service literature. In service literature, researchers have identified that interactions between a customer and a firm take a central role in service encounters (Bitner, 1992; Bitner *et al.*, 1997; Zeithaml *et al.*, 2006; Verhoef *et al.*, 2009; Bolton *et al.*, 2018). Due to digital technology drastically changing

traditional service encounters by allowing instant communications and interactions with organisations, it is essential to develop an understanding of how customers prefer to interact with a company's digital touchpoints (Bolton *et al.*, 2018). From an online service encounters perspective, the company's website is one of the most researched digital channels in the online consumer behaviour literature (Van der Heijden, 2003; Wu *et al.*, 2013). Whilst the impact of various website characteristics on customers' evaluations of the website and its usage has been extensively explored, more research is needed to establish how website interactions assist organisations in shaping customers' emotions which in turn drives trust and intended behaviour towards a company (Lemon and Verhoef, 2016).

This research explores customers' emotions, trust and intended behaviour towards a company as the main customers' responses to website interactions. Critical analysis of the literature distinguishes that customers' attitudes and trust as customers' responses to website interactions have been extensively researched either together or in isolation (Fishbein and Ajzen, 1975; Hassanein and Head, 2007; Jung *et al.*, 2014; Kirk *et al.*, 2015). Yet far less is known about how customers' emotions and trust are affected by customers' perception of control during online interactions (Éthier *et al.*, 2008; Jani and Han, 2015; Ruiz-Mafe *et al.*, 2016). Therefore, the researcher focuses on addressing this by examining the relationships between customers' perception of control, emotions, trust, and intended behaviour towards a company during website interactions.

In the contemporary e-commerce literature, scholars typically adopt the Technology Acceptance Model (TAM) to understand how website interactions influence future behaviours towards a company (Davis, 1989). TAM posits that perceived ease of use and perceived usefulness of technology impact attitudes towards this technology which in turn increases behavioural intentions to use the technology (Davis, 1989). Extending the TAM model, Gefen *et al.* (2003b) establish that customers' perceptions of ease of use of the website, and its perceived usefulness directly influence trust towards a website which in turn increases the likelihood of using the website. Ha and Stoel (2009) extend TAM by adding perceived enjoyment in the model, whereas Gefen and Straub (2004) extend TAM by adding trust and social presence constructs in understanding behavioural outcomes. Furthermore, Venkatesh *et al.* (2003) take it further and develop UTAUT, where relationships in the model are moderated by customers' characteristics such as gender, age, past experiences and voluntariness of use. Building upon various TAM models and other frameworks, literature acknowledges the important role of perceived ease of use, perceived usefulness, aesthetics dimensions, perceived

interactivity, website speed and many more (Gefen *et al.*, 2003b; Chang and Wang, 2008; Wu *et al.*, 2013; Parboteeah *et al.*, 2009; Benlian, 2015). One dimension of the website characteristics which hasn't received as much attention by itself is customers' perception of how much control they have over their interactions with a website (Manganari *et al.*, 2014).

Existing research argues that whilst customers might have more control over accessibility and purchases on a website, organisations are typically responsible for the website's layout, navigation, content and more (Wu, 2019). The notion of customers' perception of control has received much less attention in the literature, and either is studied under the lens of interactivity or as an extension of the Theory of Planned Behaviour (Ajzen, 1991; Song and Zinkhan, 2008; Jiang *et al.*, 2010; Rose *et al.*, 2012). Thus, this study aims to contribute to the existing knowledge by examining the sole role of customers' perception of control over website interactions in shaping customers' emotions and in driving trust and intended behaviour towards a company.

Whilst both TAM and UTAUT have been widely applied in online consumer behaviour, it has also been criticised due to their oversimplification and not accounting for such constructs as customers' emotions and personality characteristics (Kulviwat *et al.*, 2007; San-Martín *et al.*, 2013; Ashraf *et al.*, 2016a; McLean and Osei-Frimpong, 2019). Therefore, scholars started to adopt theories and frameworks deriving from the psychological field to better understand complex relationships between customers' interactions with a website, its characteristics, and emotional and behavioural responses towards a company (Novak and Hoffman, 1997; Peng and Kim, 2014). For instance, by adopting the Stimuli-Organism-Response (S-O-R) framework, Peng and Kim (2014) establish that the online shopping environment influences customers' emotional response towards a company which in turn increases the likelihood of purchasing from this website. The S-O-R framework has been proven successful as a theoretical lens to explain relationships between website experiences, emotions, trust and intended behaviour towards a company. This study employs the S-O-R framework as a theoretical framework. The S-O-R framework assists the researcher in exploring the mediating roles of customers' emotions and trust between customers' perception of control and intended behaviour towards a company (Vieira, 2013; Benlian, 2015; Friedrich *et al.*, 2019). This in turn helps to determine how customers' perception of control influences customers' emotions, trust, and intended behaviour towards a company.

Building upon the theory of planned behaviour, customers' perception of control is considered to be a predictor of consumer behaviour (Ajzen, 1991). Taking this theory further to the online environment domain, the existing literature highlights the importance of customers' perceptions of control online, as a result of a website's interactive features, in shaping customers' responses towards a company (Novak *et al.*, 2000; Rose *et al.*, 2012; Lambillotte *et al.*, 2022). Supporting this, Dabholkar and Sheng (2009) argue that higher perceptions of control online would lead to positive behavioural outcomes towards a company. Yet, some scholars debate the strength of direct relationships between customers' perception of control over website interactions and intended behaviour towards a company (Collier and Sherrell, 2010; Rose *et al.*, 2012).

For instance, Manganari *et al.* (2014) recognise that customers' perception of control over website interactions impacts trust towards a company which in turn influences customer satisfaction. Furthermore, Kirk *et al.* (2015) call for further research on understanding the role of customers' emotions in examining the impact of customers' perception of control during website experiences. It is argued that customers' perception of control over website interactions, customers' emotions, trust and intended behaviour, have been studied separately, and additional research is needed to understand the complex relationships (Gefen *et al.*, 2003b; Beaudry and Pinsonneault, 2010; Rose *et al.*, 2012; Manganari *et al.*, 2014; Li *et al.*, 2018). This research focuses on contributing to existing research by investigating how customers' perception of control over website interactions not only impacts intended behaviour towards a company but also customers' emotions and trust towards a company. This will assist in adding to the existing literature by identifying the roles of customers' emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company.

Therefore, to address the research aim and objectives of exploring the important role of customers' perception of control over website interactions, the following sub-section reviews the existing literature on the role of control during website interactions.

2.3 Examining the role of customers' perception of control over website interactions

The notion of customers' perception of control over website interactions is typically studied under the umbrella of the theory of planned behaviour or as part of the interactivity features of the website (Ajzen, 1991; Song and Zinkhan, 2008; Jiang *et al.*, 2010; Rose *et al.*, 2012). The theory of Planned Behaviour posits that customers' attitudes, subjective norms, and perceived behavioural control drive customers' behavioural intentions (Ajzen, 1991). According to Ajzen (2002, p. 665), perceived behavioural control is defined "*as the perception of ease or difficulty in performing the behaviour of interest"*. Taking it further to the online environment, scholars define perceived control online as the amount of control that customers feel they have in using the website (Manganari *et al.*, 2014). In the current study, the researcher refers to the perceived control online as a customer's perception of control over website interactions (Liu and Shrum, 2002).

The perception of control is considered a desired psychological state and a great predictor of behavioural outcomes (Liu and Shrum, 2002). Researching the influence of customers' perception of control during an online consumer experience, Rose *et al.* (2012) establish that customers' perception of control during an online consumer experience positively impacts emotions during online interactions. On the other hand, Manganari *et al.* (2014) recognise that customers' perception of control over website navigation influences customers' purchase intentions through the mediating role of trust. Both studies examine the effect of customers' perception of control over website interactions on different customers' responses in isolation, and it is not clear how customers' perception of control over website interactions shapes customers' emotions and trust during online experiences (Rose *et al.*, 2012; Manganari *et al.*, 2014). Hereafter, this study aims to add to the existing knowledge by empirically testing the relationships between customers' perception of control over website interactions, customers' emotions, and trust towards a company simultaneously.

The existing research distinguishes between active control on the website and customers' perception of control over website interactions (Kirk et al., 2015). Active control refers to "*the amount of flexibility and liberty the website allows its users to have in controlling the display of product information"* (Ariely, 2000; Jiang et al., 2010). The literature argues that the company can deliver different levels of active control on their website through different mechanisms such as website navigation, the pace of the interactions, and the website content

(Wu, 2005; Wu and Lin, 2012). However, scholars debate that whilst organisations can deliver different levels of active control, customers' perception of control over the process is more important as it would be more likely to influence customers' responses towards a company (Song and Zinkhan, 2008). Supporting this, Kirk et al. (2015) postulate that even if customers are allowed to customise their website experiences through a range of website features, it's their perceptions of how much in control they feel during those experiences which will influence emotions, trust, and intended behaviour towards an organisation. Furthermore, Song and Zinkhan (2008) question how in consumer behaviour, researchers can accurately capture active control and posit that measuring perceptions of control online is a better metric for understanding customers' experience. Therefore, as this research aims to understand how customers' emotions, trust, and future behaviours are shaped by encounters with a company's website, it is more important to assess customers' perception of control as a proxy of website interactions.

On the other hand, the notion of control during website experiences has been extensively studied through the concept of interactivity (McMillan and Hwang, 2002; Liu, 2003; Wu *et al.*, 2010; Beuckels and Hudders, 2016; Wu, 2019). Whilst there is no unified definition of interactivity, most literature on e-commerce agrees that interactivity is a concept consisting of perceived control (user control), perceived responsiveness, and two-way communication (Wu, 2005; Song and Zinkhan, 2008). Table 2 below provides the overview of studies focusing on understanding the influence of control during website experiences on customers' emotions, trust, and intended behaviours from the perspective of perceived control on itself, or as part of interactivity.

Author	Type of control researched	Context	Type of Study	Key Findings
Wu (2019)	Control as part of interactivity: *"Interactivity is defined as the extent to which customers employ control over the presentation of product information on a retailer's website*".	Website	Experiment: Study 1 (*n* = 240), Study 2 (*n* = 238) Interactivity has been manipulated through manipulating five types of control on the page. Low interactivity condition – participants had only control over pace; high interactivity condition – participants had control over pace, sequence, media, variables, and transaction. The desire for control has been manipulated through priming tasks before browsing the website.	Study 1: Findings indicate that people with a strong desire for control experienced more favourable attitudes towards a new product when interactivity was high versus low. Study 2: The study shows that people with a strong desire for control expressed more favourable attitudes toward a small choice set when interactivity was high versus low.
Wu *et al.* (2015)	Control is a construct consisting of active and perceived control.	Website	Experiment (*n* = 292) High and low physical control has been manipulated through the establishment of a website, wherein the high control conditions, participants freely could click and control the information they see, and in low control conditions, they were presented with a video scenario.	The study reveals differences among preferences for hedonic-focused or utilitarian-focused customers. For utilitarian-focused customers, experiencing higher levels of control is found to be more important.
Manganari *et al.* (2014)	Control as perceived navigational control: *"the extent to which online shoppers feel that the online store environment (i.e., virtual layout, web atmospherics, the structure and flow of the transaction, interactivity, and complexity features) facilitates their navigation and the shopping goal achievement (Luna, Peracchio, & de Juan, 2002)"*	Website	Experiment (*n* = 241) Fictional website where participants were given a task to buy flight tickets.	Research confirms the positive influence of perceived control on pleasure and trust, which in turn impacts customers' attitudes.
Wu and Lin (2012)	Control: *"Information control refers to the level of control over several elements, such as information content, display order, and display time (Ariely, 2000)."*	Website	Experiment (*n* = 171) Manipulation of high vs low information control through presenting alternative-attribute matrix to participants.	Research demonstrates that high-motivation customers would make better decisions when presented with high information control rather than with low information control.
Jiang *et al.* (2010)	Control as interactivity: *"the extent to which users can*	Website	Experiment (*n* = 186)	Research establishes the effect of active control on cognitive and affective

	participate in modifying the form or content of a website in real-time (Steuer, 1992)."		Manipulation of control through different levels of active control. In the high control conditions, participants had more filtering options and the flow of the interactions was dictated by participants. In low control conditions, participants were presented with a static webpage.	involvements that led to purchase intentions.
Collier and Sherrell (2010)	Control as perceived control: *"the ability to dictate the pace of the transaction, the nature of the information flow, and the level of interactivity."*	Self-service technology	Survey 1 (*n* = 2,246) – users of SST Survey 2 (*n* = 334) – non-users of SST	The study reveals the influence of perceived control and convenience on purchase intentions but only through the mediation effect of trust, speed of transaction, and exploration.
Cyr *et al.* (2009)	Control as interactivity: "*interactivity allowing the user control and access to information on the site in a variety of ways, which is both personal and responsive".*	Website	Experiment (*n* = 341) Manipulation of interactivity through the presentation of different types of web polls.	The study confirms relationships between perceived interactivity, efficiency, effectiveness, trust, enjoyment, and as a result e-loyalty.
Song and Zinkhan (2008)	Control as interactivity: *"interactivity as a concept of control, responsiveness, and communication."*	Website	Experiment: Study 1 (*n* = 341), Study 2 (*n* = 121) Manipulation of interactivity through number of clicks, response time, and message type.	The study demonstrates that message type influences participants' perception of interactivity on the website. The effect is greater in complaint scenarios rather than when searching for information.
Sicilia *et al.* (2005)	Control as a machine interactivity: *"The "machine interactivity" allows customers to control what information will be presented, in what order, and for how long (Ariely 2000; Bezjian-Avery, Calder, and Lacobucci 1998)"*	Website	Experiment (*n* = 213) Manipulation of interactivity through adding (high interactivity) and removing (low interactivity) hyperlinks on the website.	Study shows that a higher interactive website positively influences flow and increases customers' intentions towards a website.
Wu (2005)	Control as interactivity: *"Interactivity as a psychological state manifesting in three dimensions: control, responsiveness, personalisation."*	Website	Experiment (*n* = 157) Manipulation of low and high interactivity through hyperlinks, chatrooms, dynamic content, and product images.	Research confirms that perceived interactivity mediates the effect of actual interactivity on attitude towards a website.
Chung and Zhao (2004)	Control as interactivity: *"interactivity is defined as where customers have perceived control*	Website	Experiment (*n* = 180) Manipulation of interactivity through increasing or decreasing the	The study demonstrates the positive effect of interactivity on customers' memory recall and attitudes towards a website.

	over information and communication flow".		number of hyperlinks to achieve the desired goal on the web.	
Teo *et al.* (2003)	Control as interactivity is *"the degree to which participants in a communication process have control over, and can exchange roles in their mutual discourse (Williams et al. 1989)"*	Website	Experiment (*n* = 54) Interactivity has been manipulated through manipulating five types of control on the page. Low interactivity condition – participants had only control over pace; high interactivity condition – participants had control over pace, sequence, media, variables, and transaction.	The study confirms the positive influence of interactivity on website effectiveness, efficiency, satisfaction, and as a result attitudes towards a website.
McMillan and Hwang (2002)	Interactivity is a construct consisting of communication, user control, and time.	Website	Experiment (*n* = 126) Manipulation of interactivity through implementing chatrooms, site maps, and navigation bars.	The study establishes a measurement scale of interactivity consisting of 18 items on communication, user control and time.

Table 2. Existing literature explores customers' perception of control as part of interactivity or perceived control constructs.

Out of the three dimensions of interactivity, control is one of the most researched and considered to be the driving force behind the concept (Sutcliffe and Hart, 2017; Wu, 2019). When assessing the influence of interactivity, most studies manipulate different levels of control on the website by integrating hyperlinks, dynamic content, filter/sort by functions and more (Chung and Zhao, 2004; Jiang *et al.*, 2010; Van Noort *et al.*, 2012). Existing research found a positive effect of interactivity on customers' engagement, satisfaction, trust, and purchase intentions on the website (Sicilia *et al.*, 2005; Jiang *et al.*, 2010; Van Noort *et al.*, 2012; Wu, 2019). However, as existing literature draws on interactivity as a dimension consisting of control, responsiveness, and two-way communication, it is hard to differentiate which of three features drives customers' intended behaviour online (Wu and Wu, 2006). As all three constructs are interconnected under one umbrella of interactivity, some of the customers' responses towards a company might be because of responsiveness rather than control and vice versa (Voorveld *et al.*, 2011).

Furthermore, as there is a call in the literature to investigate how customers' personality characteristics shape customers' emotions, trust, and intended behaviours during website interactions, studying the notion of control under the umbrella of interactivity brings more complexity (Amichai-Hamburger *et al.*, 2004; Dailey, 2004; Wu *et al.*, 2015). It is more challenging to identify which constructs out of interactivity have a stronger influence on

emotions, trust, and behavioural responses based on customers' personality characteristics (Amichai-Hamburger *et al.*, 2004; Dailey, 2004; Wu *et al.*, 2015).

Bringing it all together, the researcher chooses to study customers' perception of control over website interactions in isolation from interactivity. The research exploring the role of customers' perception of control over website interaction driving customers' intended behaviour online is divided. On one hand, literature establishes that customers' perception of control over website interaction directly impacts customers' intended behaviour intentions (Ajzen, 1991; Pavlou and Fygenson, 2006; Fishbein and Ajzen, 2011). On the other hand, scholars argue that the effect of customers' perception of control over website interactions on intentions is stronger through the mediating role of emotions and trust (Collier and Sherrell, 2010; Rose *et al.*, 2012; Manganari *et al.*, 2014). Furthermore, whilst the influence of customers' perception of control over website interactions on trust is established, less is known about how customers' perception of control influences emotions towards a company (Kirk *et al.*, 2015). Therefore, this study addresses the identified gap by exploring the influence of customers' perception of control over website interactions on intended behaviour through the mediating role of emotions and trust (Dailey, 2004; Van Noort *et al.*, 2012; Kirk *et al.*, 2015).

Secondly, the literature recognises that perception of control is a desirable psychological state which drives positive associations with a company among customers (Liu and Shrum, 2002). As the perception of control is a desirable psychological state that drives customers' responses, less is known about how customers' personality characteristics might influence customers' responses to the perception of control over website interactions (Dailey, 2004; Wu *et al.*, 2015). Here, Manganari *et al.* (2014) debate that customers' responses to the perception of control over website interactions differ depending on their personality predispositions. In this research, the regulatory focus is adopted as a personality characteristic to establish how the relationships between customers' perception of control over website interactions, customers' emotions, trust and intended behaviour towards a company differ depending on customers' personality. Further discussion on this is found in Chapter 2, Section 2.5.

To unpack the complex relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company, the next section of the literature review focuses on exploring existing literature on customers' emotions, trust, and intended behaviour towards a company.

2.4 Exploring customers' emotions, trust, and intended behaviour towards a company during website interactions

In marketing literature, a proportion of research points out that emotions and trust are important factors that should be taken into account when examining behavioural responses towards a company (Martınez-Miranda and Aldea, 2005; Lee *et al.*, 2019). Accordingly, researchers agree that to effectively implement a customer-oriented strategy, the organisation should focus on customers' trust, emotions, and intended behaviour towards a company (Lemon and Verhoef, 2016, p. 71). Existing literature recognises that more research is needed to understand how customers' perceptions of a website experience, especially customers' perception of control over website interactions, directly influence customers' emotions, trust and intended behaviour towards a company (Jarvenpaa *et al.*, 2000; Manganari *et al.*, 2014; Mavlanova *et al.*, 2016).

Literature debates what the role of customers' emotions and trust is when assessing the relationships between customers' perceptions of control over website interactions and intended behaviour towards a company (Collier and Sherrell, 2010; Rose *et al.*, 2012). Particularly, one stream of research argues that customers' perception of control over website interaction directly drives intended behaviour, whereas another stream recognises that customers' perception of control drives intended behaviour by influencing customers' emotions and trust (Collier and Sherrell, 2010; Rose *et al.*, 2012; Manganari *et al.*, 2014). Moreover, Manganari *et al.* (2014) argues that customers' responses to customers' perception of control over website interactions might differ depending on customers' personality characteristics. Hereafter, this research aims to address this literature gap by examining how customers' perception of control over website interactions and customers' regulatory focus shape customers' emotions, and as a result drive trust and intended behaviour towards a company. To address the research aim, the next sub-section of the literature review discusses the role of customers' emotions towards a company during website experiences.

2.4.1 Emotions towards a company

In service experience literature, scholars determine the importance of affect in customers' decision-making processes (Bloemer and De Ruyter, 1999). Bloemer and De Ruyter (1999) state that affect not only motivates customers to behave in certain ways, but it influences information processing which in turn impacts customers' choices. Hence, emotions are considered to play a central role in creating emotional connections and in understanding drivers

of customers' decision-making behaviour towards an organisation (Partala and Saari, 2015). To better understand customers' emotions, Lazarus (1991a) establish cognitive appraisal theory which posits that when customers are exposed an environment, they go through an evaluation process known as the primary and secondary stages of appraisal. Adopting this theory, Williams and Aaker (2002) suggest that positive emotions act as a stimulus for actions, while negative emotions lead to avoidance behaviour. In their empirical study of understanding service failure emotions, Jayasimha and Srivastava (2017) reveal that negative emotions such as regret and disappointment lead to switching behaviour and negative word-of-mouth. Alternatively, positive emotions were found to increase satisfaction and as a result, behaviours (Phillips and Baumgartner, 2002).

Furthermore, existing research also recognises that customers' perception of control shape customers' emotions towards a company during website interactions. Hereafter, Beaudry and Pinsonneault (2010) posit that customers experience an increase in positive emotions and a decrease in negative emotions as a response to customers' perception of control over website interactions. In line with this, Rose *et al.* (2012) postulate that customers' perception of control over website interactions influences emotions during the online consumer experience.

However, whilst the relationships between customers' perception of control over website interactions, trust, and intended behaviour towards a company is well-researched, less is known whether customers' emotions mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company (Rose *et al.*, 2012; Manganari *et al.*, 2014; Kirk *et al.*, 2015; Zhang and Mao, 2020). Moreover, literature typically studies the effect of customers' perception of control on emotions or trust in isolation meaning that less is known about whether the effect of customers' perception of control over website interactions is stronger on shaping customers' emotions or trust towards a company (Lee and Turban, 2001; Bart *et al.*, 2005; Collier and Sherrell, 2010; Manganari *et al.*, 2014). Hence, this research addresses the identified gap by exploring how customers' perception of control shapes positive and negative emotions as well as identifying whether emotions mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company.

Several frameworks have been developed to understand customer emotions and adopted in e-commerce studies. Deriving from environmental psychology, the Stimulus-Organism-Response Framework (S-O-R) has been widely adopted by researchers in understanding online

consumer behaviour (Friedrich *et al.*, 2019). S-O-R theorises that external stimuli provoke customer evaluations (organism) which in turn result in (behaviour) (Mehrabian and Russell, 1974). In e-commerce literature, scholars apply S-O-R to understand the influence of website characteristics on customer evaluations and consequent behaviour online (Chang and Chen, 2008; Parboteeah *et al.*, 2009; Brengman and Karimov, 2012; Vieira, 2013; Friedrich *et al.*, 2019). Chang *et al.* (2014) adopt S-O-R and recognise a direct relationship between website aesthetics, customers' emotions, and intended behaviour towards a company. Yet, S-O-R has been criticised in the literature for the limited incorporation of moderating variables (O'Connor *et al.*, 2021). Likewise, S-O-R does not account for customers' personality characteristics which might affect relationships between stimuli, organisms, and responses (Vieira, 2013; Teh *et al.*, 2014; O'Connor *et al.*, 2021). Hereafter, this study addresses this gap by integrating different moderating and mediating variables in the organism state.

The literature calls on incorporating customers' personality characteristics in the S-O-R framework to provide a more holistic view of understanding customers' behaviour during website experiences (Vieira, 2013; Teh *et al.*, 2014; O'Connor *et al.*, 2021). Thus, by adopting the S-O-R framework, this research aims to contribute to the existing literature by investigating how during website interactions (stimuli), customers' perception of control over website experiences (organism) shapes customers' emotions and as a result, drives trust and intended behaviour towards a company (response). Additionally, this research contributes to the existing body of knowledge by investigating the moderating role of customers' regulatory focus orientation in understanding the relationships between customers' perception of control, emotions, trust and intended behaviour (Roy and Ng, 2012; Krishen *et al.*, 2019).

To further unpack the relationships between customers' perception of control over website interactions, customers' emotions and intended behaviour towards a company, it is important to draw differentiations between different approaches to examining emotions in consumer behaviour literature. In consumer behaviour literature, emotions are studied under either a valance-based approach or a specific emotions approach. (Larsen *et al.*, 2001; Jayasimha and Srivastava, 2017). While the specific emotions approach is focused on particular emotions, the valance-based approach is limited to the sum of the positive and negative emotions (Scherer *et al.*, 2001). In e-commerce literature, the valence-based approach is widely adopted. The valence-based approach simplifies the complexity of emotions, which in turn allows the investigation of complex relationships between website characteristics and customers' responses (Leone *et al.*, 2005; Ethier *et al.*, 2006). However, the valance-based approach has

been critiqued for overlooking the impact of specific emotions (Jayasimha and Srivastava, 2017). Building upon the research of Inman *et al.* (1997) that positions disappointment and regret as the most important emotions during service experiences, Jayasimha and Srivastava (2017) suggest that when customers experience disappointment they are more likely to spread negative WOM, while regret is positively related to a switching behaviour of customers. Therefore, it can be argued that different emotions lead to different behaviours establishing the importance of investigating specific emotions, rather than a sum of them.

Whilst the literature provides important arguments on the importance of studying specific emotions, the valence-based approach focusing on negative and positive emotions benefits this research by allowing it to investigate how customers' emotions are impacted during website interactions and its influence on trust and intended behaviour (Lee and Turban, 2001; Bart *et al.*, 2005; Collier and Sherrell, 2010; Manganari *et al.*, 2014). Building upon cognitive appraisal theory, this study posits that customers experience positive or negative emotions because of external environmental triggers (Folkman *et al.*, 1986; Lazarus, 1991b; Roseman, 1996). As this study focuses on understanding customers' emotions as a response to the perception of control, the researcher is interested in understanding customers' emotions as part of overall online website experiences (Ethier *et al.*, 2006; Septianto and Chiew, 2018). Hence, whilst acknowledging that customers can go through different emotions during website journeys, this study aims to understand the particular context within website experiences (Williams and Aaker, 2002). Therefore, the valence-based approach to emotions is adopted as a lens for identifying customers' emotions during website interactions.

Emotions are an essential construct in creating a connection with customers and are considered to be an important driver of decision-making online (Ishii and Markman, 2016). Nonetheless, customers base their decisions not only on emotions but also on trust (Morgan-Thomas and Veloutsou, 2013). Thus, the next sub-section aims to explore the role of trust.

2.4.2 Trust towards a company

Trust refers to a multidimensional construct that consists of a set of beliefs about trustee integrity, ability, and benevolence (Mayer *et al.*, 1995). Trust allows customers to engage in relationships with sellers and to decrease uncertainty and risks during the consumption experience (McKnight *et al.*, 2002). The theory of trust and commitment that was introduced by Morgan and Hunt (1994) indicates that in social exchange, trust and commitment are key factors in establishing relationships that can lead to behavioural outcomes. Building upon this,

Morgan-Thomas and Veloutsou (2013) establish that in an online service environment where customers do not interact face-to-face with the organisation, trust is particularly important to build relationships and increase behavioural outcomes. Building upon this, Xu-Priour *et al.* (2017) suggest that trust is influenced by the company's touchpoints such as interactions with employees, technology, and service environment. Supporting findings of Eastlick *et al.* (2006), Morgan-Thomas and Veloutsou (2013) conclude that a high level of trust positively relates to engagement with online sellers, whilst a low level of trust most likely results in abandoning the interaction. In contrast, Lee *et al.* (2019) recognise that if customers do not trust an organisation, they are less likely to take advice from its services suggesting a decrease in behavioural intentions. Building upon this further, existing research establishes that trust towards a company is a key driver of customer loyalty, satisfaction, and purchase intentions online (Lim *et al.*, 2006; Wu *et al.*, 2010; Lien and Cao, 2014). Hence, it is argued that trust is an essential linkage between customers' perceptions during website interactions and intended behaviour towards a company.

In online consumer behaviour literature, the role of trust in explaining the influence of digital technologies on customers' intended behaviour has been researched extensively (Bart *et al.*, 2005; Madhavan *et al.*, 2006; Thongpapanl *et al.*, 2018). In e-commerce literature, two types of trust are recognised. Typically, when assessing the influence of digital technologies, trust towards technology is measured (Lee and Turban, 2001; Cheung and Lee, 2006). Gefen and Straub (2003) extend the Technology Acceptance Model by recognising that perceived use and perceived usefulness of a website directly influence trust towards this website which in turn affects the behaviour of using the website. Conversely, scholars argue that investigating trust towards a website only limits understanding of how website interactions might impact trust towards a company (Rose *et al.*, 2012). Thus, the current research focuses on how customers' perception of control drives trust towards a company.

On the other hand, Arnott *et al.* (2007) highlight that trust can be perceived from cognitive and affective dimensions. On the cognitive level, trust occurs when customers believe in the reliability and credibility of the service provider (Morgan and Hunt, 1994). Whilst, on the affective level, trust refers to an individual's confidence that develops from emotions evoked as a result of service encounters (Arnott *et al.*, 2007). Typically, in online consumer behaviour, trust is researched from a cognitive perspective (Gefen *et al.*, 2003b; Cheung and Lee, 2006; Cyr, 2008; Aguirre *et al.*, 2015).

Extensive research in e-commerce acknowledges that website characteristics help organisations increase trust towards a company. Specifically, customers' perception of control is established as one of the key drivers of trust towards a company during website interactions (Ming-Shen *et al.*, 2007; Collier and Sherrell, 2010; Wu and Lin, 2012). However, a proportion of research on customers' perception of control and trust is conducted in isolation and doesn't account for other customers' responses. For instance, Kirk *et al.* (2015) question what is the role of emotions when investigating the relationships between customers' perception of control, trust, and intended behaviour. Therefore, this research aims to close this gap by investigating how customers' perception of control over website experiences shapes customers' emotions which in turn drive trust and intended behaviour towards a company. To further unpack complex relationships, the next sub-section of literature reviews aims to discuss the construct of intended behaviour towards a company.

2.4.3 Intended behaviour towards a company

In consumer behaviour research, scholars differentiate between actual behaviour and intended behaviour towards a company (Fishbein and Ajzen, 1975; Fishbein and Ajzen, 2011). According to the theory of planned behaviour, actual behaviour is influenced by intentions to perform this behaviour (Ajzen, 1991). Yet, Fishbein and Ajzen (2011) argue that in a research context due to methodological difficulties, it could be challenging and time-consuming to measure actual behaviour, and most research focuses on measuring intentions. To overcome this issue, for this study, the researcher tried to negotiate with Vodafone UK, a major British telecommunication, to add to the existing literature by measuring actual customers' behaviour after interacting with a website. Unfortunately, this collaboration didn't result in the researcher's desired outcome, and more is discussed in Chapter 4.

Nonetheless, due to challenges arising from measuring actual consumer behaviour, most studies in the online consumer behaviour domain focus on examining customers' intended behaviour (Ming-Shen *et al.*, 2007; Kühn and Petzer, 2018). Typically, in e-commerce literature, understanding customers' intentions is split into customers' intentions towards a company or customers' intentions towards a technology (Zolait, 2014; Gao and Bai, 2014; Fan *et al.*, 2017; Yen and Chiang, 2020). The latter is typically based on the Technology Acceptance Model (TAM) or Unified Theory of Acceptance and Use of Technology (UTAUT) which argues that technology characteristics influence attitude towards a technology which in turn influences intentions toward this technology (Davis *et al.*, 1989; Venkatesh *et al.*, 2003). In

their comprehensive study on understanding how website characteristics influence customers' website adoption, Van der Heijden (2003) establish that website characteristics directly influence customers' likelihood to use a company's website. Whilst the relationships between website characteristics and the likelihood of using a website are well-established, there are more inconsistencies in understanding how characteristics influence customers' intended behaviour towards a company (Dabholkar and Sheng, 2009).

The following study focuses on exploring customers' intended behaviour towards a company because of customers' perception of control over website interactions, customers' emotions, and trust. According to the theory of planned behaviour, customers' perceptions of control directly influence customers' intended behaviour (Ajzen, 1991). Alternatively, the literature also recognises that customers' emotions and trust have a direct influence over future behaviours (Fishbein and Ajzen, 1975; Davis, 1989; Lazarus, 1991b; Morgan and Hunt, 1994). Supporting this further, Septianto and Chiew (2018) suggest that positive emotions act as a motivator to recommend services to others, whereas trust strengthens the relationships between a company and customer resulting in higher loyalty intentions (Etemad-Sajadi, 2014). Hence, existing research disputes that there are more complex relationships between customers' perception of control over website interactions and customers' intended behaviour towards a company. Particularly, Fan *et al.* (2017) argue that customers' perception of control directly influences intended behaviour towards a company, whereas Manganari *et al.* (2014) debate that the influence of customers' perception of control over website interactions on intended behaviour is stronger through the mediating role of trust. Hereafter, more research is needed to fully understand how customers' perception of control over website interactions impacts customers' intended behaviour towards a company. This study aims to contribute to existing knowledge by examining the influence of customers' perception of control over website interactions on intended behaviour towards a company through recognising the important role of customers' emotions and trust.

Furthermore, existing research argues that the response to customers' perception of control over website interactions on customers' behavioural outcomes might differ depending on customers' individuality characteristics (Wu and Lin, 2012; Manganari *et al.*, 2014). Literature debates that customers' perception of control over website interactions might result in different customer responses and depend on their personality preferences (Roy and Ng, 2012; Krishen *et al.*, 2019). Thus, the question arises as to how customers' personality characteristics might affect complex relationships between customers' perception of control over website

interactions, customers' emotions, and trust, and intended behaviour towards a company. To add to the existing literature this study explores how customers' regulatory focus orientations influence those relationships during website experiences. Therefore, the next section of the literature review aims to explore the role of regulatory focus in understanding website interactions.

2.5 The role of regulatory focus in exploring website interactions

The following section of the literature review explores the concept of regulatory focus. This section starts by considering regulatory focus as customers' personality characteristics moving on to understanding the differences between chronic regulatory focus and situation regulatory focus. Next, the application of regulatory focus in consumer behaviour research is examined. The section finishes by discussing the role of regulatory fit in understanding the impact of regulatory focus on customers' responses towards a company.

2.5.1 Concept of regulatory focus

Whilst the literature has established the importance of customers' perception of control online on driving customers' emotions, trust, and intended behaviour, far less is known about how customers' characteristics might affect these relationships (Amichai-Hamburger *et al.*, 2004). Supporting this argument, Kirk *et al.* (2015) posit that further research is needed to understand how personality characteristics influence customers' responses as well as moderate relationships between website characteristics' perceptions and customers' responses towards a company.

Song and Qu (2019) recognise the importance of understanding an individual's personality traits to deliver personalised and tailored experiences to customers. In support of this, Arnold *et al.* (2014) acknowledge that customers might have different responses to similar shopping experiences depending on their personality characteristics. Das (2016) postulates that personality type plays a prominent role in e-commerce behaviours. Specifically, in his comprehensive study, Das (2016) suggests that depending on individual characteristics, people might seek the pleasure of surfing online, while others will try to avoid risks associated with online shopping. Das (2016) points out that little is known about how a person's motivations might influence online journeys. In line with this, Arnold *et al.* (2014) argue that different perceptions of experiences might depend upon chronic regulatory focus. Therefore, this study postulates that customers' regulatory focus orientation moderates the relationships between

customers' perception of control over website interactions, customers' emotions, and trust, and intended behaviour towards a company.

Originally developed by Higgins *et al.* (2001), regulatory focus theory posits that people are differentiated based on two motivational orientations: promotion and prevention. Individuals with a promotion orientation focus on reaching positive outcomes through achievement and growth, whereas individuals with a prevention orientation focus on avoiding negative outcomes through minimising risks (Chernev, 2004a). Friedman and Förster (2002) demonstrate that individuals with a promotion-focus are less likely to feel at risk and more likely to engage in risk-seeking behaviours, whereas prevention-focus individuals are more likely to feel at risk and by nature would be more risk-averse in their behaviours. Supporting this, research reveals that promotion-orientated personalities engage in relational and exploratory behaviour, whilst prevention-orientated personalities engage in analytical and detail-orientated behaviour (Zhu and Meyers-Levy, 2007; Arnold *et al.*, 2014). Table 3 below summaries the differences between customers with promotion-focus and customers with prevention-focus orientations (Higgins *et al.*, 2001; Freitas and Higgins, 2002; Avnet and Higgins, 2006; Haws *et al.*, 2010; Jia *et al.*, 2012; Higgins *et al.*, 2020).

Characteristics	Promotion-focus	Prevention-focus
Orientation	Approach	Avoidance
Goal-pursuit strategy	Focuses on pursuing positive outcomes, gains, achievements	Focuses on avoiding negative outcomes, and on establishing security
Risk predisposition	Risk-seeking	Risk-averse
Decision-making style	Take chances and explore different pathways and opportunities	Being cautious and focusing on minimising risks
Thinking style	More creative, open-minded, feeling-based	More analytical, precise
Behaviour	Emphasis on achieving positive, desired outcomes	Emphasis on preventing negative, undesired outcomes
Emotional characteristics	Focusing more on a positive emotional state	More aware of negative emotional states

Table 3. Differences between promotion-focus and prevention-focus orientations

Wu *et al.* (2019) suggest that chronic regulatory focus influences customers' responses towards a company. However, a lot of existing research focuses on applying regulatory focus theory in the advertising field trying to understand how advertising aligned with customers' regulatory focus influences customers' information processing and choice (Semin *et al.*, 2005; Wang and

Lee, 2006; Roy, 2017; Dodoo and Wu, 2021). Far less is known about how customers' regulatory focus orientation impacts emotions, trust and intended behaviour during website experiences (Ashraf and Thongpapanl, 2015; Wu *et al.*, 2019; O'Connor *et al.*, 2021).

In their in-depth research in the e-commerce context, Ashraf and Thongpapanl (2015) posit that a website with hedonic features has higher satisfaction among customers with a promotion-focus, whereas a website with utilitarian features has higher satisfaction among customers with prevention-focus orientations. These are noteworthy findings as they would suggest that chronic regulatory focus affects customers' future behaviours by delivering interactions in line with regulatory focus (Ashraf and Thongpapanl, 2015; Higgins *et al.*, 2020). Whilst the comprehensive study by Ashraf and Thongpapanl (2015) shines light on how regulatory focus theory can be applied in the e-commerce field to better understand customers' behaviour online, more research is needed to further explore the relationships between website interactions, customers' emotions, trust and intended behaviour towards a company. Therefore, this study aims to close this gap by applying regulatory focus theory to investigate how customers' regulatory focus orientation influences relationships between customers' perception of control over website interactions, emotions, trust and intended behaviour towards a company.

For instance, this research hypothesises that due to prevention-focus customers' nature on ensuring prevention of negative outcomes and their risk-averse nature, the effect of perception of control over website interactions on customers' emotions, trust, and intended behaviour towards a company is going to be stronger for prevention-focus compared to their counterparts, promotion-focus customers (Avnet and Higgins, 2006; Dodoo and Wu, 2021). Research shows that prevention-focus customers tend to be more analytical and assess everything in more precise detail signposting that perception of control over website experience accelerates their goal of preventing negative outcomes (Zhu and Meyers-Levy, 2007; Arnold and Reynolds, 2009). This indicates that perception of control over website interactions creates alignment between customers' regulatory orientations and website characteristics, which in turn influence customers' emotions, trust, and intended behaviour towards a company (Freitas and Higgins, 2002; Khajehzadeh *et al.*, 2014; Fazeli *et al.*, 2020).

The literature has also acknowledged that regulatory focus orientation could be either chronic (treated as a personality trait) or situational (induced by external stimuli) (Haws *et al.*, 2010; Higgins *et al.*, 2020). To achieve this research's aim, this study aligns with the stream of research which treats regulatory focus orientation as a chronic personality trait of customers.

Therefore, the next sub-section of the literature review discusses the differences and applications of chronic regulatory focus vs situational regulatory focus.

2.5.2 Chronic regulatory focus vs situational regulatory focus

Research into regulatory focus reveals that regulatory focus orientation can be either chronic or situational (Haws *et al.*, 2010; Higgins *et al.*, 2020). Whilst the situational regulatory focus is typically induced through different situational variables, the chronic regulatory focus is considered a personality trait (Crowe and Higgins, 1997; Lockwood *et al.*, 2002; Haws *et al.*, 2010). Particularly, existing research suggests that chronic regulatory focus remains stable over time, signposting that naturally, an individual will tend to one of the two orientations (Higgins *et al.*, 2001; Haws *et al.*, 2010; Wu *et al.*, 2019). Chronic regulatory focus is applied widely in different research contexts to understand consumer behaviour and to draw meaningful conclusions about how customers' regulatory focus orientations affect future behaviours (Song and Qu, 2019).

However, as research in regulatory focus progresses, scholars argue that regulatory focus might not be chronic, but adapt to the situation (Wirtz and Lwin, 2009). Specifically, applying regulatory focus in the psychology field, the literature discusses that individuals exhibit promotion or prevention-focus orientations depending on the situation they are in (Crowe and Higgins, 1997; Higgins, 1998; Lee and Aaker, 2004). This particular thinking has been widely adopted in the advertising field, where scholars determine that by providing customers with a promotion or prevention-induced advertising messaging frame, they can calculate the effectiveness of ads (Kim and Sung, 2013; Dodoo and Wu, 2021). Table 4 provides an overview of studies applying chronic or situation regulatory focus in various research fields.

Study Name	Study aim	Regulatory Focus	Field	Research Method	Study Outcome
Van Noort *et al.* (2008)	To understand how regulatory focus can predict the persuasiveness of online safety cues.	Situational	Website	Experiment Regulatory focus is induced by asking participants to read the descriptions of two discrete feelings related to either promotion or prevention focus.	Research demonstrates that safety cues on the website lower customers' risk perceptions only in prevention-focus conditions.
Arnold and Reynolds (2009)	To investigate how regulatory focus influences on relationships between mood regulation, retail evaluations and intended behaviours.	Chronic	Retail	Experiment Chronic regulatory focus is measured by the Semin *et al.* (2005) scale.	The study reveals that mood regulation in retail settings is closely related to regulatory focus orientations. Specifically, research shows that customers with promotion-focus put more emphasis on repairing negative

					moods, whereas no effect is found for customers with prevention-focus orientation.
Ashraf *et al.* (2016b)	To explore how regulatory focus and website attributes influence online consumer behaviour.	Situational	Website	Experiment Regulatory focus is induced by asking participants to write down their past dreams, hopes and aspirations (promotion-focus prime), or their duties, obligations, and responsibilities (prevention-focus prime).	The study demonstrates that promotion-focus customers have a higher purchase intention towards hedonic websites, whereas prevention-focus customers have a higher purchase intention towards utilitarian websites.
Das (2016)	To investigate the moderating role of regulatory focus on customer intentions and behaviour in e-commerce.	Chronic	Website	Experiment. Chronic regulatory focus is measured by the Lockwood *et al.* (2002) scale.	Research shows that promotion-focus customers are more likely to spread positive word of mouth rather than prevention-focus customers when experiencing a pleasant online experience.
Thongpapanl *et al.* (2018)	To understand customers' motivations (utilitarian and hedonic) to use m-commerce across six countries.	Chronic	M-commerce	Survey Chronic regulatory focus is measured by the Lockwood *et al.* (2002) scale.	Research establishes that hedonic motivations are more likely to influence value perceptions and trust for promotion-focus customers, whereas utilitarian motivations are more likely to impact value perceptions and trust for prevention-focus customers.
Fazeli *et al.* (2020)	To examine how customers' regulatory focus influences luxury purchases in an online environment.	Chronic	Website	Experiment Chronic regulatory focus is measured by Higgins *et al.* (2001) scale.	The study determines that customers with a chronic promotion focus have a higher tendency towards buying luxury goods, compared to customers with a chronic prevention focus.

Table 4. Chronic vs Situation Regulatory Focus

Whilst various studies applied chronic or situational regulatory focus orientations, this study adopts chronic regulatory focus orientations for various reasons. To begin with, the situational regulatory focus is typically used in the advertising context, where the research focuses on measuring customers' responses to specific situations or stimuli (Crowe and Higgins, 1997; Lee and Aaker, 2004; Van Noort *et al.*, 2008). However, as this research aims to explain more complex relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company, employing a chronic regulatory focus is deemed more appropriate. Chronic regulatory focus helps the research to conduct an in-depth analysis through the lens of chronic customers' personality characteristics on shaping customers' emotions, trust and intended behaviours towards a company in a website context (Fazeli *et al.*, 2020). This approach is in line with the foundational premise of chronic regulatory focus which suggests that individuals have a natural tendency to one of the two

orientations and apply it in their decision-making (Higgins, 1998; Pham and Higgins, 2005). By adopting a chronic regulatory focus orientation, this research contributes to the existing literature by establishing how customers' perception of control over website interactions and customers' regulatory focus shape emotions, and as a result drive trust and intended behaviour towards a company.

To further understand how chronic regulatory focus impacts relationships between customers' perception of control, customers' emotions, trust and intended behaviour towards a company, the next sub-section of the literature review discusses the application of regulatory focus in online consumer behaviour research.

2.5.3 Application of regulatory focus in online consumer behaviour research

As previously stated, regulatory focus theory has been widely applied in the fields of advertising and psychology (Kim and Sung, 2013; Dodoo and Wu, 2021). Typically, regulatory focus theory is applied to understand how customers make decisions based on compatibility with their orientation messages or cues (Werth and Foerster, 2007). Whilst those findings help to understand how customers make decisions, it's limited to a specific encounter and doesn't take into account the complexity of online experiences and human nature (Das, 2016). More specifically, Ashraf and Thongpapanl (2015) argue that the influence of website interactions and regulatory focus has been studied in isolation and more research is needed to understand how customers' regulatory focus orientation and website interactions shape customers' responses towards a company in the online shopping environment. Hereafter, this study aims to contribute to the existing research by applying regulatory focus on exploring how customers' regulatory focus orientation and perception of control over website interactions influence customers' emotions, trust and intended behaviour towards a company.

Existing literature recognises the importance of chronic regulatory focus in shaping customer evaluations and behaviours (Avnet and Higgins, 2006; Arnold *et al.*, 2014). Wang and Lee (2006) determine that customers have more positive attitudes towards the behaviour if they have adopted a goal-pursuit strategy matching their regulatory focus orientation. Supporting this, Fazeli et al. (2020) claim that the compatibility between online interactions and regulatory focus drives customers' intended behaviour towards a company. When applying regulatory focus to online consumer behaviour literature, much of the research focuses on understanding how regulatory focus orientations influence the relationships between website interactions and intended behaviour towards a company (Das, 2016; He *et al.*, 2018; Lin *et al.*, 2018; O'Connor

et al., 2021). For instance, Ashraf and Thongpapanl (2015) suggest that customers are more likely to engage in online behaviour when they are presented with website cues compatible with their regulatory focus. Alternatively, in their comprehensive research exploring the role of regulatory focus in digital health experiences, O'Connor *et al.* (2021) theorise that perceived ease of use and perceived usefulness correspond to promotion orientation, whereas security and trust concerns relate to prevention orientation. In line with this, Ashraf *et al.* (2016b) postulate that applying regulatory focus in understanding behaviour online will give further insights to companies on how to deliver desirable online interactions to their customers. Whilst extensive studies support the notion of regulatory focus influencing customers' intended behaviours, little is known about how website interactions in alignment with customers' regulatory focus orientations affect customers' emotions, trust, and intended behaviour towards a company (Jia *et al.*, 2012; Wu *et al.*, 2019; O'Connor *et al.*, 2021). Thus, this study aims to address this gap by examining how customers' regulatory focus orientation impacts the relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company.

This study hypothesises that customers' regulatory focus influences customers' reactions to the perception of control over website interactions. Grounded in regulatory focus theory, the research suggests that due to the more risk-averse nature of prevention-focus individuals, the impact of perception of control over website interactions on emotions, trust, and intended behaviour is going to be stronger for prevention-focus customers rather than promotion-focus customers (Avnet and Higgins, 2006; Dodoo and Wu, 2021). Nath and McKechnie (2016) argue that interactivity features of the website such as perceptions of control help risk-averse customers to feel more secure and empowered in their interaction which leads to positive behavioural outcomes towards a company. This is further supported by Avnet and Higgins (2006) who theorise that when individuals' goal orientation and goal strategy align, it creates positive engagement which in turn positively affects customers' responses towards a company. Whilst existing research demonstrates that website cues compatible with customers' regulatory focus orientation influence intended behaviour towards a company online, less is known about how regulatory focus orientation influences customers' emotions and trust (Ashraf and Thongpapanl, 2015; Ashraf *et al.*, 2016b).

Building upon regulatory focus theory, Avnet and Higgins (2006) recognise that promotion-orientated customers make decisions based on feelings, whilst prevention-oriented customers prefer to make their decisions based on reasons. Supporting this further, Barari *et al.* (2020)

state that customers with promotion orientation focus more on affective evaluations whilst customers with prevention orientation focus on cognition during online experiences. Furthermore, Novak and Hoffman (2009) postulate that promotion-orientated customers rely on intuitions and emotions when making decisions, whilst prevention-orientated customers rely on logical and rational elements of decision-making processes. On the other hand, existing research also establishes that positive emotions are more likely to be associated with promotion-focus orientation, whereas negative emotions are more likely to be associated with prevention-focus orientation (Wu *et al.,* 2019; Song and Qu, 2019). However, the literature calls on more empirical research to further understand how regulatory focus shapes customers' emotions and trust (Thongpapanl *et al.,* 2018; Wu *et al.,* 2019). Thus, this research aims to further support the existing literature by empirically testing the influence of regulatory focus on shaping customers' emotions and driving trust and intended behaviour towards a company. Theoretically, it will add to the knowledge by exploring the role of regulatory focus in assessing the influence of website interactions on customers' emotions, trust, and intended behaviour. In practice, this research serves as a foundation for using regulatory focus personality characteristics in delivering desirable website interactions to the customers which in turn increase emotions, trust, and future intentions towards a company.

Once the role of regulatory focus in online consumer behaviour research is discussed, the next section of this chapter focuses on exploring the notion of regulatory fit.

2.5.4 The notion of regulatory fit in understanding the influence of customers' regulatory focus on responses towards a company

The regulatory fit theory has been developed alongside the regulatory focus theory by Higgins (2005). According to the regulatory fit theory, a match or mismatch between individuals' regulatory focus and goal-pursuit strategy creates a sense of "fit" (match) or "misfit" (mismatch) which in turn results in more favourable attitudes and responses (Freitas and Higgins, 2002; Higgins, 2005). In e-commerce literature, the notion of regulatory fit explains the importance of aligning website cues with customers' regulatory focus orientation (Thongpapanl *et al.*, 2018; Fazeli *et al.*, 2020).

In the psychology and advertising context, the regulatory fit is used to explain positive behavioural outcomes because of the alignment between customers' regulatory focus orientation and customers' goal-pursuit strategies (Lee and Aaker, 2004; Uskul *et al.*, 2009). In the e-commerce context, regulatory fit or regulatory match is used in existing studies to explain

favourable outcomes towards a company, when website characteristics or communications are aligned with customers' regulatory focus (Ashraf and Thongpapanl, 2015; Thongpapanl *et al.*, 2018). Ashraf *et al.* (2016a) use the notion of regulatory fit (misfit) to explore how website characteristics in line with customer regulatory focus orientations increase or decrease customers' responses towards a company. In the context of the website, several scholars establish that promotion-focus customers are more likely to experience regulatory fit and as a result positive outcomes towards a company if website characteristics are more hedonic and visually appealing, whilst the same is true for prevention-focus customers if website characteristics are mode utilitarian and systematic (Chitturi *et al.*, 2007; Arnold and Reynolds, 2009; Ashraf and Thongpapanl, 2015; Ashraf *et al.*, 2016b).

However, whilst the literature acknowledges the behavioural outcomes of regulatory fit, less is known about the influence of match between website interactions and regulatory focus on emotions (Song and Qu, 2019; Krishen *et al.*, 2019; Zhu *et al.*, 2023). Particularly, existing research is more focused on understanding rational processes behind regulatory fit rather than exploring the complex relationships between emotions, trust, and intended behaviour (Ashraf and Thongpapanl, 2015; Khajehzadeh *et al.*, 2014; Thongpapanl *et al.*, 2018; Fazeli *et al.*, 2020). Thus, the following study aims to contribute to the existing literature by understanding how customers' perception of control over website interactions together with their regulatory focus orientation influence customers' emotions, trust and intended behaviour. This further adds to the existing research by uncovering how the notion of regulatory focus and regulatory match shapes customers' emotions, trust, and intended behaviour towards a company in the online domain.

2.6 Conclusion

This section focuses on critically reviewing existing literature in the areas of customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company, and regulatory focus. The chapter started by introducing the key concepts of this research, followed by a discussion on the importance of researching the notion of customers' perception of control over website interactions. Next, the researcher critically reviewed existing research on customers' emotions, trust and intended behaviour towards a company. The last section in the chapter drew upon the role of regulatory focus in exploring the relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company.

Building upon existing literature, several gaps in the literature have been identified:

1. *The influence of customers' perception of control over website interactions on shaping customers' emotions and driving trust towards a company*

Whilst the relationships between customers' perception of control over website interactions and trust, have been researched extensively, the role of customers' emotions is less clear (Rose *et al.*, 2012; Manganari *et al.*, 2014; Kirk *et al.*, 2015; Zhang and Mao, 2020). Specifically, less is known about how customers' perception of control over website interactions shapes customers' emotions and as a result trust towards a company (Lee and Turban, 2001; Bart *et al.*, 2005; Collier and Sherrell, 2010; Manganari *et al.*, 2014). Therefore, this research focuses on addressing the identified gap by exploring how customers' perception of control over website interaction shapes customers' emotions and as a result, influences trust towards a company.

2. *The influence of customers' perception of control over website interactions on driving intended behaviour towards a company.*

The current literature is divided on understanding the direct effect of customers' perception of control over website interactions on driving intended behaviour towards a company. One stream of research argues, building upon the Theory of Planned Behaviour, that customers' perception of control over website interactions directly influences customers' intended behaviour towards a company (Ajzen, 1991; Pavlou and Fygenson, 2006). On another hand, literature also debates that the impact of customers' perception of control over website interactions on customers' intended behaviour towards a company is stronger through mediating constructs of emotions and trust (Collier and Sherrell, 2010; Manganari *et al.*, 2014; Rose *et al.*, 2012). Thus, this study aims to close this literature gap by empirically investigating the relationships between customers' perception of control over website interactions and intended behaviour towards a company (Dailey, 2004; Van Noort *et al.*, 2012; Kirk *et al.*, 2015).

3. *The role of regulatory focus on investigating the relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour.*

Existing literature establishes that customers' emotions, trust, and intended behaviour responses to website interactions might differ based on customers' personality characteristics (Roy and Ng, 2012; Krishen *et al.*, 2019). Particularly, existing research posits that customers'

responses to the perception of control over website interactions in ways of emotions, trust, and intended behaviour might depend on personality traits (Dailey, 2004; Wu *et al.*, 2015). However, the research in this domain is scarce and more research is needed to understand the role of customers' personality characteristics during website interactions. This research adopts regulatory focus orientation as a customer personality trait and focuses on closing an existing literature gap on examining how customers' regulatory focus impacts relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company (Avnet and Higgins, 2006; Dodoo and Wu, 2021).

Hereafter, this research aims to add to the existing literature and contribute to knowledge by examining how customers' perception of control over website interactions and customers' regulatory focus orientation shape customers' emotions and as a result drive trust and intended behaviour towards a company. To address the research aim, the next section of this thesis focuses on developing the research model and relevant hypotheses based on identified literature gaps.

3 Development of research model and relevant hypotheses

Several issues emerged from the literature review, and these are taken forward to develop an empirical model for this study. The following chapter focuses on developing a conceptual model and relevant hypotheses which will be empirically tested in Chapter 5. This chapter consists of two major sections. Firstly, the researcher focuses on establishing a relevant theoretical framework for this study. Secondly, an empirical conceptual model of this study and relevant hypotheses based on existing literature is developed. The chapter finishes by providing an overview of suggested hypotheses.

3.1 Introduction

This study aims to uncover how customers' perception of control over website interactions shapes customers' emotional responses and as a result drives customers' trust and intended behaviour towards a company. To further understand the relationships between customers' perception of control over website interactions, emotions, trust, and intended behaviour towards a company, this research draws upon examining how customers' personality characteristics, such as regulatory focus orientation, influence those relationships. This chapter aims to address those relationships by discussing this research's theoretical background, then establishing a conceptual model, and reviewing suggested hypotheses.

To meet the research objectives of this study, the next section focuses on discussing the underpinning theoretical framework. The theoretical framework is built, but not limited to the following theories:

- Stimuli-Organism-Response Framework (Mehrabian and Russell, 1974)
- Theory of Planned Behaviour (Ajzen, 1991)
- Cognitive Appraisal Theory (Lazarus, 1991a; Roseman, 1996)
- Trust research (Morgan and Hunt, 1994; Gefen and Straub, 2003)
- Regulatory focus Theory (Higgins, 1998)

3.2 Theoretical framework

This study argues that customers' perception of control over website interactions and customers' regulatory focus shape customers' emotions and drive trust and intended behaviour

towards a company. As discussed in Chapter 2, the Technology Acceptance Model (TAM) is typically used to explore the influences of website interactions on customers' emotions, trust, and intended behaviour towards a company (Davis *et al.*, 1989; Wu and Wang, 2005; Ha and Stoel, 2009; Ashraf *et al.*, 2016b). Whilst TAM has been applied and modified for various research objectives and contexts to understand customers' technology usage, this study has decided to move away from TAM as a main theoretical framework due to reasons discussed in Chapter 2. To investigate the relationships between customers' perception of control over website interactions, regulatory focus orientation, emotions, trust, and intended behaviour towards a company, it is decided not to proceed with TAM, but to adopt the Stimuli-Organism-Response (S-O-R) as a meta-framework for this study.

Deriving from the environmental psychology field, the S-O-R framework has been extensively adopted in the field of consumer behaviour, especially in e-commerce literature (Friedrich *et al.*, 2019). In e-commerce research, scholars apply the S-O-R framework to investigate how different website features (navigation cues, content, design layout, personalisation and more) influence customers' future purchase intentions (Chang and Chen, 2008; Parboteeah *et al.*, 2009; Brengman and Karimov, 2012; Vieira, 2013; Friedrich *et al.*, 2019). The S-O-R framework implies that specific features in the environment **(stimuli)** impact customer cognition **(organism),** which in turn influences customer future behaviour **(response)** (Mehrabian and Russell, 1974). In online consumer behaviour research, **stimuli** typically refer to any contextual cues external to customers, such as a company website with which customers interact (Benlian, 2015). **Organism** reflects to customer's cognition states (Benlian, 2015; Friedrich *et al.*, 2019). In e-commerce literature, cognition signifies customer evaluations of experiences and includes such variables as perceived usefulness, perceived enjoyment, and others (Benlian, 2015; Friedrich *et al.*, 2019). Next, the S-O-R framework proposes that customer cognitive evaluations influence customers' responses towards a company **(response)** (Chang and Chen, 2008; Parboteeah *et al.*, 2009; Brengman and Karimov, 2012; Vieira, 2013; Friedrich *et al.*, 2019). The theoretical framework of this study based on the S-O-R is presented in Figure 1 below.

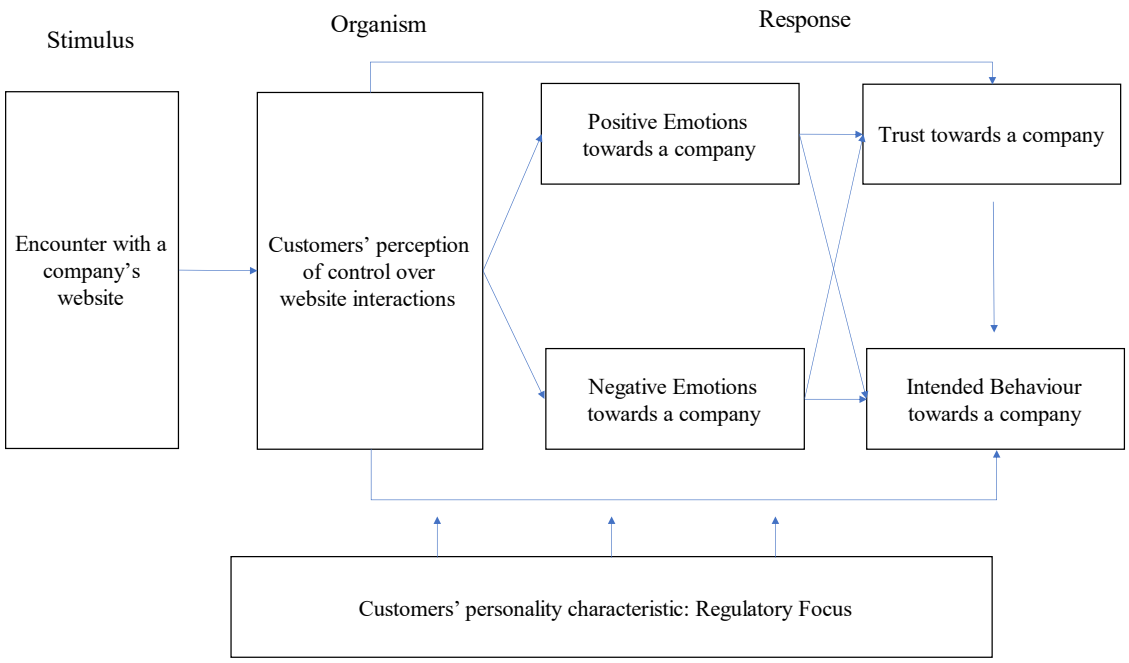


Figure 1. Theoretical framework.

In the current study, encounters with the company's website serve as ***stimuli*** which then leads to customers' cognitive evaluations (***organism***). In this research, the cognitive state presents itself as customers' evaluation of the perception of control over website interactions (Jiang *et al.*, 2010; Friedrich *et al.*, 2019). Building upon cognitive appraisal theory, which suggests that customers' cognitive appraisals of experiences influence customers' emotional response, this study argues that customers' perception of control over website interactions positively influences customers' positive or negative emotions towards a company ***(response)*** (Lazarus, 1991a; Roseman, 1996; Manganari *et al.*, 2014). Next, building on extended technology acceptance models and TBA, this study theorises that customers' perception of control over website interactions positively impacts further ***response*** elements of the S-O-R model such as trust and intended behaviour towards a company (Gefen *et al.*, 2003b; Rose *et al.*, 2012). This research posits that customers' emotions influence customers' ***response*** towards a company, particularly customers' trust and intended behaviour towards a company (Williams, 2001; Williams and Aaker, 2002; Andersen and Kumar, 2006; Rose *et al.*, 2012). Trust and emotions towards a company are considered to be ***a response*** element in the framework as increases in trust and emotions towards a company are customer responses to customers' perception of control over website interactions (Kamboj *et al.*, 2018; Friedrich *et al.*, 2019). The framework further hypothesises that customer trust positively impacts intended behaviour towards a company (Gefen *et al.*, 2003a; Gefen and Straub, 2003; Lin, 2007; Hsieh and Liao, 2011). Finally, building upon regulatory focus theory, this study establishes that customers' regulatory

focus orientation moderates the relationships between customers' perception of control over website interactions, emotions, trust and intended behaviour towards a company.

Adopting the S-O-R framework as an overarching framework for this study is deemed to be appropriate for several reasons. Firstly, the S-O-R framework acknowledges the complex relationships between stimuli, organisms, and response which assists in unpacking the relationships between website interactions, emotions, trust, and intended behaviour towards a company (Vieira, 2013; Benlian, 2015). Secondly, the S-O-R framework is highly adaptable to the context. It could be seen through past studies that the S-O-R model can be modified accordingly by adding relevant factors in stimuli, organism, and response section of the model (Jiang *et al.*, 2010; Peng and Kim, 2014; O'Connor *et al.*, 2021; Tak and Gupta, 2021). Hence, the researcher adjusts the S-O-R framework by integrating the various mediating and moderating variables into the original meta-framework.

However, the S-O-R framework has also been criticised for the limited incorporation of moderating variables. More specifically, one of the biggest limitations of S-O-R is that it does not account for customers' personality characteristics in influencing the relationships between stimuli, organisms, and responses (Vieira, 2013; Teh *et al.*, 2014; O'Connor *et al.*, 2021). Hereafter, this study aims to further contribute to the literature by extending the S-O-R framework by incorporating customers' regulatory focus as personality characteristics moderating the relationships between customers' perception of control, emotions, trust and intended behaviour towards a company.

Employing the S-O-R framework helps the researcher to understand how customers' perception of control during website interactions and regulatory focus orientations shape customers' emotions and trust, which in turn drives intended behaviour towards a company. To further unpack the relationships in the theoretical framework, the next section focuses on discussing the conceptual model and establishing relevant hypotheses for this research.

3.3 Conceptual model and relevant hypotheses

The following research focuses on establishing the conceptual model that would assist in understanding how customers' perception of control over website interactions shapes customers' emotions, and as a result, drives trust and intended behaviour towards a company as well as identifying the role of regulatory focus. To address the research aim, the conceptual model below is proposed (Figure 2).

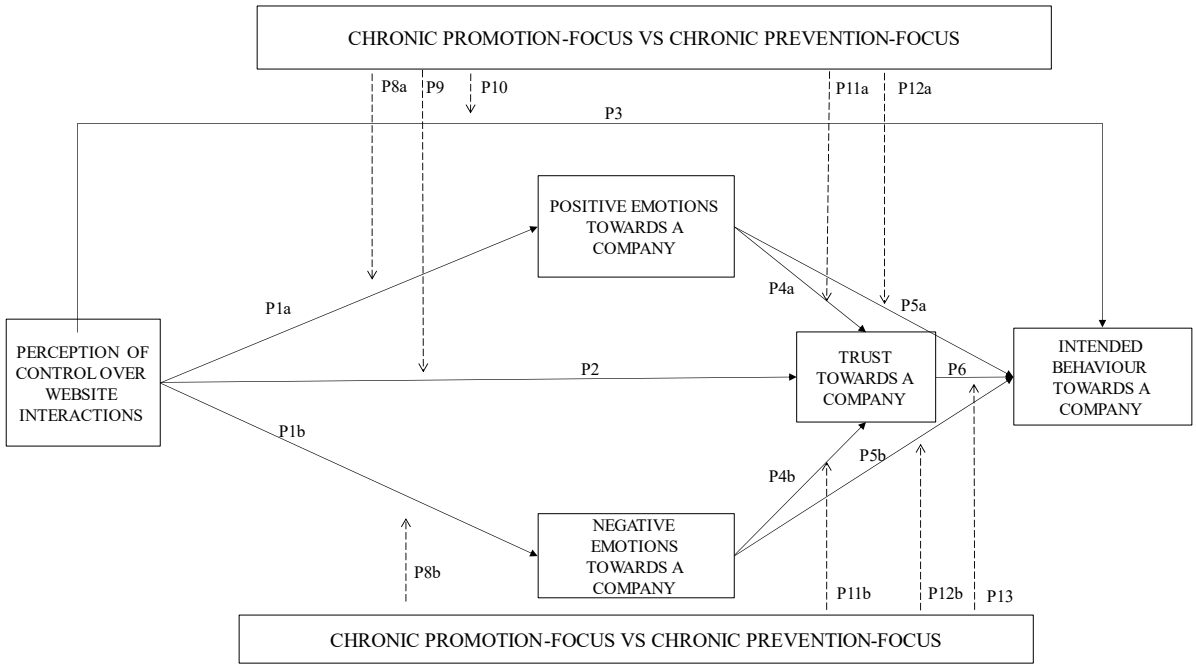


Figure 2. Proposed conceptual model of this study.

The conceptual model is divided into four main blocks. Firstly, it proposes relationships between customers' perception of control over website interactions, emotions, and trust towards a company, and intended behaviour towards a company. Next, it suggests that emotions towards a company influence trust and intended behaviour towards a company, in addition to trust impacting intended behaviour towards a company. Thirdly, the mediating role of emotions and trust in relationships in the model is reviewed. Lastly, the conceptual model theorises that regulatory focus orientations moderate relationships in the model.

To further unpack the relationships in the model, the next section reviews proposed hypotheses on relationships between customers' perception of control online, positive, and negative emotions, trust and intended behaviour towards a company.

3.3.1 Establishing relationships between customers' perception of control over website interactions, customers' emotions, trust and intended behaviour towards a company

This research assumes that customers' perception of control over website interactions positively influences customers' positive, and negative emotions, trust and intended behaviour towards a company (Figure 3).

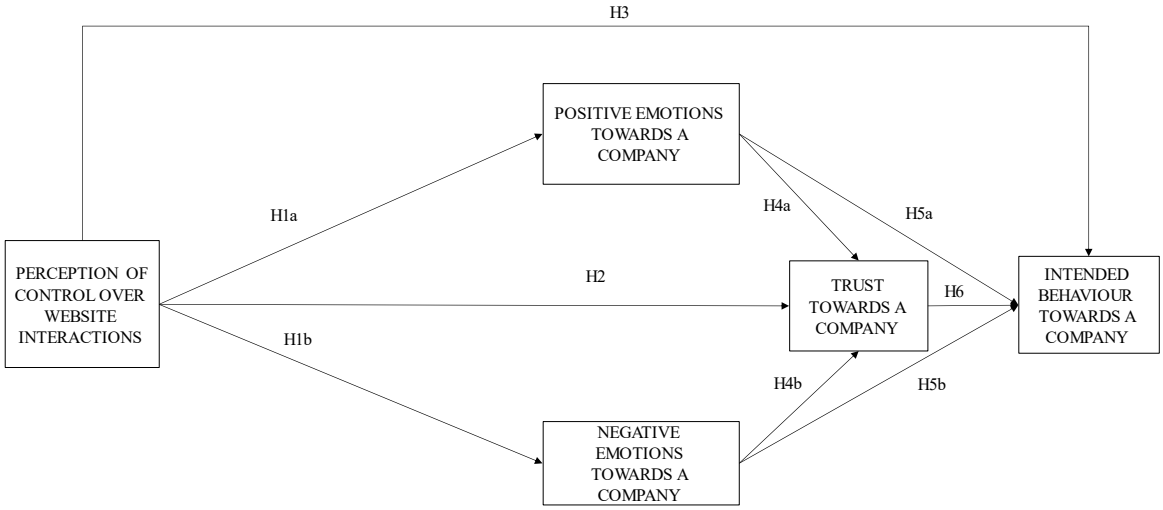


Figure 3. Relationships between customers' perception of control over website interactions, positive, and negative emotions, trust and intended behaviour towards a company.

The relationships between customers' perception of control over website interactions and customers' positive and negative emotions towards a company.

As previously discussed in Chapter 2, the relationship between customers' perception of control over website interactions and emotions is scarce (Manganari *et al.*, 2014; Kirk *et al.*, 2015). To unpack the relationships, the researcher refers to Cognitive Appraisal Theory. Cognitive Appraisal theory posits that when exposed to an environment, customers go through an evaluation of their experience in a way of appraisals which in literature refers to different types of emotions (Lazarus, 1991a). Building upon this, Roseman (1996) argues that if the cognitive appraisal is consistent with individual motivation, it results in a positive emotional response, whereas if the cognitive appraisal is inconsistent with individual motivations, it results in a negative emotional response. Hereafter, it is debated that if customers come to a company's website for a specific task, customers' perception of control over website interactions results in increasing positive emotions and decreasing negative emotions (Lazarus, 1991a; Roseman, 1996). This is further supported by the research of Beaudry and Pinsonneault (2010) who theorise based on Cognitive Appraisal Theory that higher levels of perception of control lead to increases in positive emotions and decreases in negative emotions.

Furthermore, building on the research of Rompay *et al.* (2008), Manganari *et al.* (2014) acknowledge that similarly to offline retail, in online retailing, perception of control online

positively impacts affective responses such as pleasure. Similarly, Zhang and Mao (2020) discuss that decreases in perception of control with technology lead to increases in negative emotions such as anger, frustration, and fear. In context of online retail, Rose *et al.* (2012) posit and empirically support a causative relationship between customers' perception of control online and emotions towards a company.

Thus, it is postulated that increases in customers' perception of control over website interactions positively increase positive emotions and decrease negative emotions towards a company (Rose *et al.*, 2012; Manganari *et al.*, 2014; Kirk *et al.*, 2015; Zhang and Mao, 2020).

The following hypotheses are proposed:

Hypothesis 1a: Customers' increased perception of control over website interactions leads to higher levels of positive emotions towards a company.

Hypothesis 1b: Customers' decreased perception of control over website interactions leads to lower levels of negative emotions towards a company

Next, the relationships between customers' perception of control over website interactions, trust and intended behaviour towards a company are discussed.

The relationship between customers' perception of control over website interactions and trust towards a company.

In consumer behaviour research, having higher levels of perception of control is a desirable psychological state which increases customer satisfaction (Liu and Shrum, 2002). For instance, the Theory of Planned Behaviour (TPB) argues that customers' perception of control is a key driver of intentions (Ajzen, 1991). Building upon TPB, literature extensively researches the influence of perceived control online and offline on behavioural intentions and attitudes (Hui and Bateson, 1991; Pavlou and Fygenson, 2006). Literature finds support in portraying customers' perception of control online positively influencing trust towards a company (Lee and Turban, 2001; Bart *et al.*, 2005; Collier and Sherrell, 2010; Manganari *et al.*, 2014). For instance, existing research shows that customers use the perception of control online as a proxy for establishing trust with a company (Bart *et al.*, 2005; Collier and Sherrell, 2010). Supporting this further, Wu *et al.* (2010) postulate that by having higher perceptions of control over website interactions, customers develop confidence in navigating the website and as a result increase their trust in a company (Walczuch and Lundgren, 2004). Moreover, building on the research of Kim *et al.* (2008), Mavlanova *et al.* (2016) suggest that when dealing with unfamiliar

websites, experience-based characteristics help organisations build trust with customers. Hence, it is theorised that perception of control during website interactions fosters a trust-building process towards a company (Jarvenpaa *et al.*, 2000; Manganari *et al.*, 2014; Mavlanova *et al.*, 2016).

The following hypothesis is suggested:

Hypothesis 2: Customers' increased perception of control over website interactions leads to higher levels of trust towards a company.

The relationship between customers' perception of control over website interactions and intended behaviour towards a company.

Building upon the Theory of Reasoned Action (TRA), Ajzen (1991) developed the Theory of Planned Behaviour (TPB) where perceived behavioural control plays a major role in predicting future behavioural intentions (Ajzen, 1991; Pavlou and Fygenson, 2006; Fishbein and Ajzen, 2011). TBP suggests a causative relationship between perceived control and intended behaviour towards a company (Ajzen, 1991).

Supporting this, Fan *et al.* (2017) further establish that customers' perception of control predicts indented behaviour as by feeling that they have more control over an environment, customers are more likely to be cognitively active and can make choices about their behaviour. This is in line with Dabholkar and Sheng (2009) who found a causal relationship between customers' perception of control online to intended behaviour. This is further supported by Ming-Shen *et al.* (2007) who used data from offline and online environments, and found that the greater customers' sense of control during online experiences, the greater their intentions towards a company are (Elwalda *et al.*, 2016).

Therefore, the following hypothesis is suggested:

Hypothesis 3: Customers' increased perception of control over website interactions leads to increases in intended behaviour towards a company.

So far, this study establishes that customers' perception of control over website interactions impacts customers' positive, and negative emotions, trust and intended behaviour towards a company. To further address the research aim, the next sub-section of the conceptual model development focuses on theorising the relationships between customers' emotions, trust, and intended behaviour towards a company.

3.3.2 Establishing relationships between customers' emotions, trust and intended behaviour towards a company

This section addresses the proposed relationships between positive and negative emotions towards a company, trust towards a company, and intended behaviour towards a company. Specifically, the research model argues that customers' emotions influence trust and intended behaviour towards a company. Additionally, the model discusses relationships between trust and intended behaviour towards a company (Figure 4).

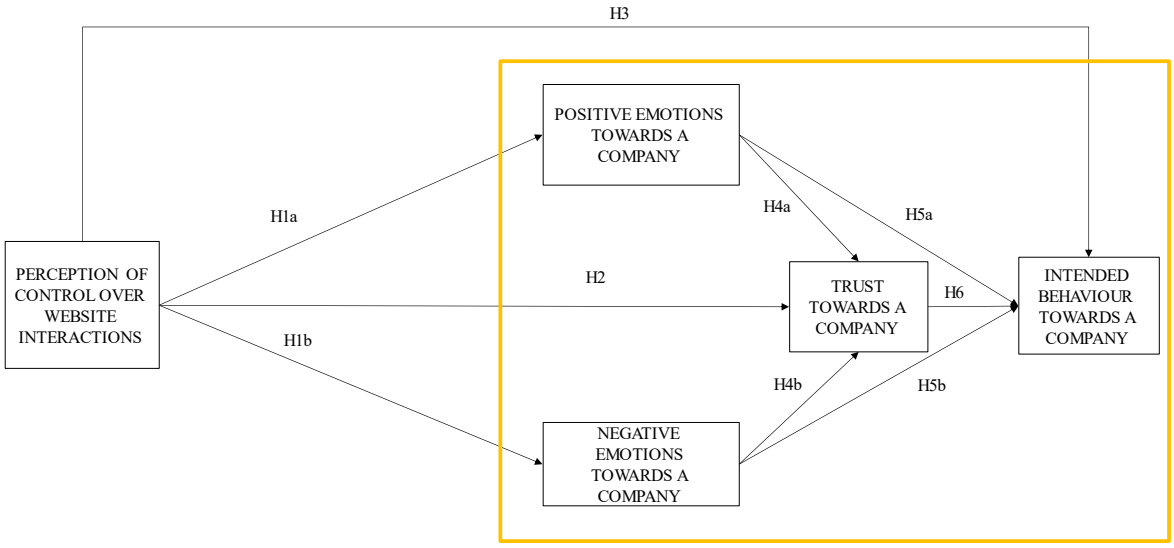


Figure 4. Relationships between positive and negative emotions, trust, intended behaviour towards a company.

The relationships between customers' emotions and trust towards a company.

The impact of emotions on trust has been extensively researched in the context of service encounters (Su *et al.*, 2014; Urueña and Hidalgo, 2016). Literature suggests that positive emotions positively increase the level of trust towards a company, whereas negative emotions hinder trust towards a company (Williams, 2001; Andersen and Kumar, 2006). Andersen and Kumar (2006) argue that trust which is based on affective responses is more established and long-lasting. Taking this further, Rose *et al.* (2012) recognise direct relationships between affective state online and trust towards a company.

Furthermore, Urueña and Hidalgo (2016) reveals the positive influence of positive emotions on increasing trust towards a company, but the impact of negative emotions on decreasing trust has been found insignificant. Therefore, further research is needed to investigate the influence

of emotions on trust building and development. On another hand, Dunn and Schweitzer (2005) acknowledge that positive emotions such as happiness and gratitude increase trust, whereas negative emotions such as anger decrease trust towards a company.

Hence, building upon existing research, this study postulates that positive emotions positively influence trust towards a company, whereas negative emotions negatively impact trust towards a company (Williams, 2001; Dunn and Schweitzer, 2005; Andersen and Kumar, 2006; Rose *et al.*, 2012).

The following hypotheses are proposed:

Hypothesis 4a: Customers' positive emotions lead to higher levels of trust towards a company.

Hypothesis 4b: Customers' negative emotions lead to lower levels of trust towards a company.

Next, the researcher examines the relationships between customers' emotions and intended behaviour towards a company.

The relationship between customers' emotions and intended behaviour towards a company.

Emotions have been recognised as an important predictor of consumer behaviour both online and offline (Pantano, 2020). Building upon extensive research on emotions, Romani *et al.* (2012) postulate that emotions lead to different behaviours. Specifically, Jayasimha and Srivastava (2017) imply that when consumers experience disappointment they are more likely to spread negative WOM, while regret is positively related to switching behaviour of consumers. Alternatively, positive emotions were found to increase satisfaction and as a result, behaviours (Phillips and Baumgartner, 2002). In line with Lazarus's (1991) cognitive appraisal theory, Williams and Aaker (2002) recognise that positive emotions act as stimuli for actions, while negative emotions lead to avoidance behaviour.

Similarly, when assessing the influence of emotions on online purchase intentions, Kim and Lennon (2013) found that customers' emotions act as a driver of intended behaviour towards a company. On the other hand, Rose *et al.* (2012) suggest that the influence of emotions on behavioural intentions online would be stronger through the mediating link of trust and satisfaction. This is in line with Jeon *et al.* (2021) who did not find a direct influence of

emotions on purchase intentions on the website but only through the mediating role of satisfaction. Despite this, Pappas *et al.* (2014) postulate that emotions have a direct effect on behavioural intentions online.

Hereafter, based on existing literature, it is theorised that positive emotions positively influence intended behaviour towards a company, whilst negative emotions negatively impact intended behaviour towards a company.

The following hypotheses are suggested:

Hypothesis 5a: Customers' positive emotions lead to increases in customers' intended behaviour towards a company.

Hypothesis 5b: Customers' negative emotions lead to decreases in customers' intended behaviour towards a company.

After the relationships between customers' emotions, trust, and intended behaviour are established, the researcher moves on to hypothesising relationships between trust and intended behaviour towards a company.

The relationship between customers' trust and intended behaviour towards a company.

Throughout the literature, trust has been recognised as an important factor in building and sustaining relationships between a firm and a consumer (McKnight *et al.*, 2002). Particularly, scholars acknowledge the importance of trust in the online environment, where customers don't directly interact with companies (Morgan-Thomas and Veloutsou, 2013). Building upon this, Morgan-Thomas and Veloutsou (2013) demonstrate that in the online service environment where consumers do not interact face-to-face with organisations, trust is particularly important to build relationships and increase behavioural outcomes. Supporting findings of Eastlick *et al.* (2006), Morgan-Thomas and Veloutsou (2013) conclude that a high level of trust leads to increases in intended behaviour towards a firm.

In support of this, Hsieh and Liao (2011) argue that trust in firms helps to mitigate risks and worries, which in turn leads to higher behavioural intentions. This has found support in multiple existing research in the online context supporting the crucial role of trust in predicting customer behaviour online (Gefen *et al.*, 2003a; Gefen and Straub, 2003; Lin, 2007; Hsieh and Liao, 2011).

Therefore, the following hypothesis is suggested:

Hypothesis 6: Customers' trust leads to increases in customers' intended behaviour towards a company.

After the main hypotheses in the model have been discussed, the next sub-section focuses on reviewing the mediating role of emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company.

3.3.3 The mediating role of customers' emotions and trust on the relationship between customers' perception of control over website interactions and intended behaviour towards a company

Existing research argues that customers' perception of control online has a stronger influence on intended behaviour towards a company through the mediating constructs of customers' emotions and trust (Collier and Sherrell, 2010; Rose *et al.*, 2012). For instance, in their comprehensive research of customers' perception of control online, Collier and Sherrell (2010) establish that customers' perception of control during website experience impacts behaviour through the mediating link of trust. Similarly, Manganari *et al.* (2014) acknowledge that customers' perception of control influences trust towards a firm which in turn affects behavioural intentions in an online e-travel context. Supporting this further, Rose *et al.* (2012) theorise that customers' perception of control online in e-commerce influences customers' emotions states which in turn impacts trust towards a company.

Hereafter, based on the discussion below and the literature review in Chapter 2, this study hypothesises that emotions and trust act as mediators between customers' perception of control over website interactions and intended behaviour towards a company. (Lazarus, 1991a; Bart *et al.*, 2005; Collier and Sherrell, 2010; Beaudry and Pinsonneault, 2010; Rose *et al.*, 2012; Romani *et al.*, 2012; Morgan-Thomas and Veloutsou, 2013; Mavlanova *et al.*, 2016; Jayasimha and Srivastava, 2017; Zhang and Mao, 2020).

Therefore, the following hypothesis is proposed:

Hypothesis 7: Trust, positive and negative emotions fully mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company.

After the relationships in the main conceptual model are discussed, the next sub-section develops hypotheses related to the moderating effects of regulatory focus.

3.3.4 Modelling for the moderating role of customers' regulatory focus on relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company

As previously discussed in this thesis, customers' regulatory focus orientation is adopted as a customer personality characteristic that moderates the relationships in the model. Whilst the literature acknowledges the importance of customers' perception of control over website interactions in shaping customers' emotions and driving trust and intended behaviour towards a company, little is known about how customers' characteristics might affect these relationships (Amichai-Hamburger *et al.*, 2004). Supporting this argument, Kirk *et al.* (2015) establish that further research is needed to understand how personality characteristics influence emotional responses as well as moderate relationships between website characteristics' perceptions and emotional responses. Ashraf and Thongpapanl (2015) postulate that whilst website attributes and consumers' regulatory focus orientations have been studied extensively, it has been explored in separation and more research is needed to understand further underlying mechanisms of online consumer behaviours. Supporting this, this research posits that customer regulatory focus moderates the relationships between customers' perception of control over website interactions, customers' emotions, customers' trust and intended behaviour towards a company (Figure 5).

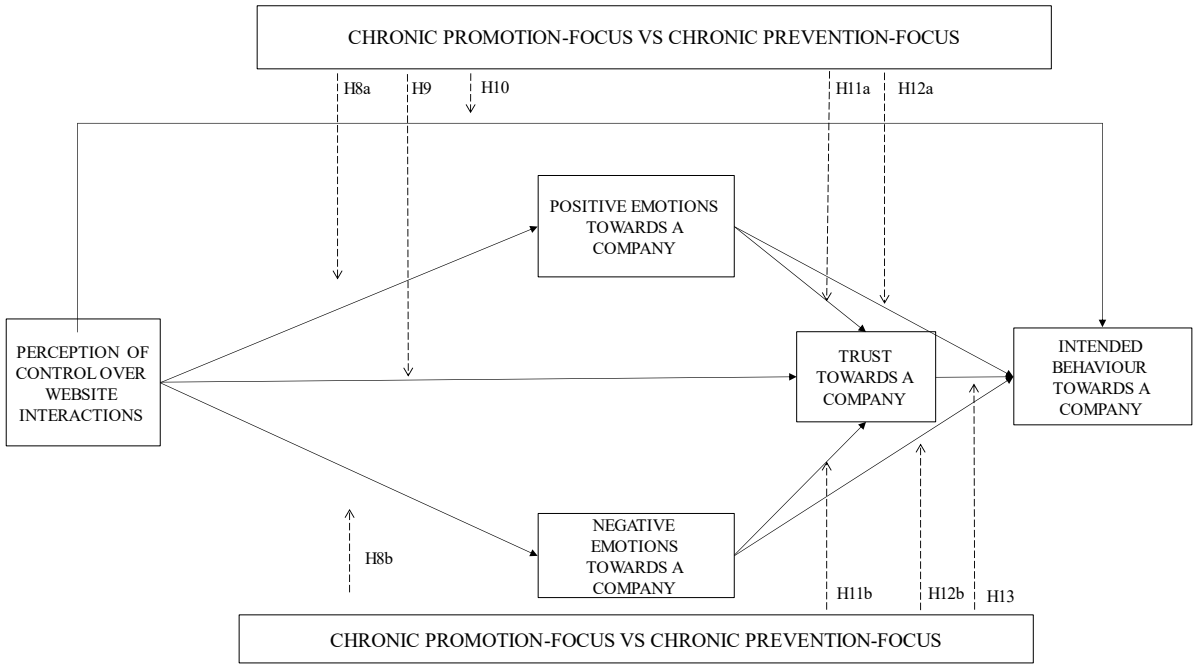


Figure 5. This study's conceptual model – The moderating effect of customers' regulatory focus.

The moderating effect of regulatory focus on relationships between customers' perception of control over website interactions and emotions towards a company.

In line with regulatory focus theory, this study implies that the emotional response based on the perception of control over website interactions varies for customers with a promotion-focus orientation and customers with a prevention-focus orientation. Specifically, customers with a prevention-focus orientation are more likely to have a stronger emotional response to the perception of control over website experiences as the sense of control is aligned with their regulatory orientation of risk avoidance (Lee and Aaker, 2004; Lee *et al.*, 2010; Ashraf and Thongpapanl, 2015; Barari *et al.*, 2020). Therefore, this research hypothesises that when prevention-focus customers experience increases in perception of control over website experience, they are more likely to experience increases in positive emotions and decreases in negative emotions towards a company.

Alternatively, for customers with a promotion-focus orientation, the effect of perception of control over website interactions won't have as strong an effect on positive or negative emotions towards a company (Das, 2016; Thongpapanl *et al.*, 2018). It is theorised that perception of control relates more to the safety and risk avoidance website characteristics and as a result wouldn't have the same influence on customers with a promotion-focus orientation (Chernev, 2004a; Nath and McKechnie, 2016). Furthermore, as customers with promotion-focus orientation are more focused on goal pursuit towards advancement and achievement, it is suggested that their emotional response would be stronger from progress towards achieving positive outcomes rather than the perception of control over website experiences itself (Chernev, 2004a; Higgins *et al.*, 2020). In summary, this study posits that the influence of perception of control over website interactions on positive, and negative emotions towards a company would be stronger for prevention-focus rather than promotion-focus customers.

Thus, the following hypotheses are suggested:

Hypothesis 8a: The effect of customers' perception of control over website interactions on positive emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Hypothesis 8b: The effect of customers' perception of control over website interactions on negative emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Next, the moderating effects of regulatory focus on relationships between customers' perception of control over website interactions, trust, and intended behaviour are investigated.

The moderating effect of regulatory focus on relationships between customers' perception of control over website interactions and trust towards a company.

This study argues that customers' perception of control over website interactions serves as a mechanism for prevention-focus customers towards a sense of security and their vigilant goal-pursuit strategies during online shopping experiences (O'Connor *et al.*, 2021). Specifically, for customers with a prevention-focus orientation, perception of control over website interactions assists in ensuring that customers feel they are in control over the online shopping experience, and hence they can prevent any potential negative outcomes or losses (Wang and Lee, 2006; Jia *et al.*, 2012).

Alternatively, customers with a promotion-focus orientation aim towards a sense of achievement and maximizing positive outcomes (Higgins, 1998; Higgins, 2005). Hence, it is assumed that for this type of customer, the effect of the perception of control over website interactions might not have the same strength on trust towards a company as for customers with prevention-focus orientations. Research shows that customers with a promotion-focus orientation are not as sensitive to cues that are focused on risk avoidance demonstrating that perception of control does not necessarily have a stronger effect on increases in customers' trust towards a company (Van Noort *et al.*, 2008; Ashraf and Thongpapanl, 2015).

Therefore, the following hypothesis is proposed:

Hypothesis 9: The effect of customers' perception of control over website interactions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.

The moderating effect of regulatory focus on relationships between customers' perception of control over website interactions and intended behaviour towards a company.

Similarly, this research postulates that regulatory focus orientations moderate the relationships between the perception of control over website interactions and intended behaviour towards a company (Ashraf and Thongpapanl, 2015; Ashraf *et al.*, 2016b). In their comprehensive research, Ashraf and Thongpapanl (2015) imply that customers are more likely to engage in behaviour when they are presented with information or cues compatible with their regulatory focus. Aligned with the previous discussion, this study recognises that the perception of control

over website interactions is a website cue which is compatible with prevention-focus orientation as it elicits a sense of security and reassurance (Van Noort *et al.*, 2008). Building upon existing literature, it is suggested that customers with a prevention-focus orientation would see a sense of control over website interactions as a proxy of positive evaluations of a company's online environment and as a result would have stronger behavioural intentions towards this company (Pham and Higgins, 2005; Nath and McKechnie, 2016).

On the contrary, it is argued that the effect of perception of control over website interactions on intended behaviour towards a company won't be as strong for promotion-focus customers. The explanation lies within regulatory focus theory demonstrating that website cues focusing on safety and risk avoidance do not impact evaluations and as a result behaviours for promotion-focus customers (Arnold and Reynolds, 2009; Ashraf and Thongpapanl, 2015).

Therefore, the following hypothesis is proposed:

Hypothesis 10: The effect of customers' perception of control over website interactions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.

After the moderating effect of regulatory focus on the relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company is acknowledged, the next sub-section focuses on discussing the impact of regulatory focus on relationships between customers' emotions, trust, and intended behaviour towards a company.

3.3.5 Modelling for the moderating role of customers' regulatory focus on relationships between customers' emotions, trust and intended behaviour towards a company

This study further recognises that regulatory focus moderates the relationships between customers' positive, and negative emotions, trust and intended behaviour towards a company. Wu *et al.* (2019) demonstrate that chronic regulatory focus influences both trust and emotions during online shopping experiences. In their in-depth research, Wu *et al.* (2019) point out that regulatory focus impacts all stages of customers' decision-making from information processing to final choice. Supporting this, Wang and Lee (2006) recognise that consumers have more positive responses towards the behaviour if it aligns with their regulatory focus orientation.

The moderating effect of regulatory focus on relationships between customers' emotions and trust towards a company.

This study postulates that emotions go in alignment with customers' promotion-focus orientations (Das, 2016). Specifically, as promotion-orientated customers focus towards achieving positive outcomes and advancement, it is suggested that positive emotions are more in coherence with promotion-focus orientation (Barari *et al.*, 2020). Therefore, this research considers that positive emotions have a stronger positive impact on trust towards a company for promotion-focus customers (Higgins, 1998; Arnold *et al.*, 2014; Thongpapanl *et al.*, 2018). On the other hand, literature shows that the influence of positive emotions is less pronounced for prevention-orientated customers as they are more likely to focus on rational and cognitive processes of decision-making (Pham and Higgins, 2005; Avnet and Higgins, 2006). It is argued that whilst for prevention-focus customers positive emotions also influence trust towards a company, the effect of positive emotions is not going to be as strong as for promotion-focus customers (Chitturi *et al.*, 2007; Das, 2016).

Alternatively, it is proposed that prevention-focus customers are more likely to be sensitive to negative emotions, and as a result, decreases in trust towards a company (Wang and Lee, 2006; Arnold and Reynolds, 2009; Arnold *et al.*, 2014). For instance, as prevention-focus customers are more sensitive to negative outcomes, experiencing negative emotions intensifies their desire for risk avoidance meaning they experience stronger decreases in trust towards a company (Chernev, 2004b; Wirtz and Lwin, 2009; Song and Qu, 2019; O'Connor *et al.*, 2021).

Thus, the following hypotheses are suggested:

Hypothesis 11a: The effect of customers' positive emotions on trust towards a company is stronger for promotion-focus customers than for prevention-focus customers.

Hypothesis 11b: The effect of customers' negative emotions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Next, the moderating effect of customers' regulatory focus on the relationships between customers' emotions and intended behaviour is reviewed.

The moderating effect of regulatory focus on relationships between customers' emotions and intended behaviour towards a company.

Building upon regulatory focus theory, Higgins (2005) demonstrates that when customers are in a state of regulatory alignment with an external environment and their regulatory focus orientations, they are more eager to engage in behaviours. As previously discussed in this chapter, for customers with a promotion-focus orientation due to their internal drive for achievement and enhancement, experiencing positive emotions results in a regulatory match, whereas experiencing negative emotions results in a regulatory match for prevention-focus customers (Song and Qu, 2019; Krishen *et al.*, 2019; Zhu *et al.*, 2023). Hence, it is suggested that experiencing positive emotions results in stronger increases in intended behaviour towards a company, whereas experiencing negative emotions results in stronger decreases in intended behaviour towards a company for prevention-focus customers (Higgins, 2005; Leone *et al.*, 2005; Khajehzadeh *et al.*, 2014; Arnold *et al.*, 2014; Fazeli *et al.*, 2020).

Therefore, in line with regulatory focus theory, this study implies that for promotion-orientated customers, positive emotions positively drive intended behaviour towards a company, whereas negative emotions decrease intended behaviour towards a company for prevention-focus customers (Higgins, 2005; Leone *et al.*, 2005; Khajehzadeh *et al.*, 2014; Arnold *et al.*, 2014; Song and Qu, 2019; Fazeli *et al.*, 2020).

The following hypotheses are proposed:

Hypothesis 12a: The effect of customers' positive emotions on intended behaviour towards a company is stronger for promotion-focus customers than for prevention-focus customers.

Hypothesis 12b: The effect of customers' negative emotions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Finally, the last sub-section of this chapter discusses the moderating effect of regulatory focus on relationships between customers' trust and intended behaviour towards a company.

The moderating effect of regulatory focus on relationships between customers' trust and intended behaviour towards a company.

Lastly, this study theorises that for customers with prevention-focus orientation, trust towards a company is more likely to lead to positive increases in customers intended behaviour towards a company, compared to customers with promotion-focus orientation (Chitturi *et al.*, 2007; Thongpapanl *et al.*, 2018; Barari *et al.*, 2020). For prevention-orientated customers, who strive for minimising risks, and are more analytical in their decision-making, trust serves as a reliable extension for intended behaviour towards a company (Pham and Higgins, 2005; Thongpapanl

et al., 2018). Specifically, it is argued that trust towards a company creates a regulatory match for prevention-focused customers as they are more sensitive to avoiding negative outcomes (Avnet and Higgins, 2006; Lee *et al.*, 2010). This indicates that trust is more likely to lead to stronger increases in customers' intended behaviour towards a company for prevention-focus customers due to the match between their strive for risk avoidance and trust towards a company (Thongpapanl *et al.*, 2018).

Conversely, it is proposed that the effect of trust towards a company on intended behaviour towards a company wouldn't be as strong for promotion-focused customers (Barari *et al.*, 2020). The explanation for this lies within previous discussions on promotion-orientated customers, which shows that they are more likely to base their decisions on feelings and intuition rather than cognition (Barari *et al.*, 2020).

Therefore, the following hypothesis is proposed:

Hypothesis 13: The effect of customers' trust on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.

3.4 Conclusion

To conclude, this chapter focuses on establishing a theoretical framework to understand the relationships between customers' perception of control over website interactions, emotions, trust, and intended behaviour towards a company as well as the moderating effect of customers' regulatory focus orientations on those relationships. Rooted in existing e-commerce research, this study adopts the Stimuli-Organism-Response framework as a theoretical background of this study. The theoretical framework suggests that increases in customers' perception of control over website interactions influence customers' emotions, trust, and intended behaviour as well as customers' regulatory focus orientations moderate the relationships in the framework.

Next, the researcher proposes and discusses the conceptual model of this study. The conceptual model postulates that an increase in customers' perception of control positively affects customers' emotions, trust, and intended behaviour towards a company. The conceptual model further discusses that customers' emotions influence trust and intended behaviour as well as acknowledging the important role of trust in driving intended behaviour towards a company. The model also recognises that customers' emotions and trust act as mediators between customers' perception of control over website interactions and intended behaviour towards a

company. Lastly, drawing upon regulatory focus theory, the conceptual model posits that regulatory focus orientation moderates the relationships between customers' perception of control over website interactions, emotions, trust and intended behaviour towards a company. The summary of all proposed hypotheses is presented in Table 5 below.

Relationships in the conceptual model	*Related hypotheses*
Relationships between customers' perception of control over website interactions and customers' emotions, trust, and intended behaviour towards a company.	***Hypothesis 1a: Customers' increased perception of control over website interactions leads to higher levels of positive emotions towards a company.***
	Hypothesis 1b: Customers' decreased perception of control over website interactions leads to lower levels of negative emotions towards a company.
	Hypothesis 2: Customers' increased perception of control over website interactions leads to higher levels of trust towards a company.
	Hypothesis 3: Customers' increased perception of control over website interactions leads to increases in intended behaviour towards a firm.
	Hypothesis 4a: Customers' positive emotions lead to higher levels of trust towards a company.
	Hypothesis 4b: Customers' negative emotions lead to lower levels of trust towards a company.
	Hypothesis 5a: Customers' positive emotions lead to increases in customers' intended behaviour towards a company.
	Hypothesis 5b: Customers' negative emotions lead to decreases in customers' intended behaviour towards a company.
	Hypothesis 6: Customers' trust leads to increases in customers' intended behaviour towards a company.
Mediating roles of emotions and trust on relationships between customers' perception of control over website interactions and intended behaviour towards a company.	***Hypothesis 7: Trust, positive and negative emotions fully mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company.***
The moderating effect of regulatory focus on relationships between customers' perception of control over website interactions, customers' emotions, trust and intended behaviour towards a company.	***Hypothesis 8a: The effect of customers' perception of control over website interactions on positive emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.***
	Hypothesis 8b: The effect of customers' perception of control over website interactions on negative emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.
	Hypothesis 9: The effect of customers' perception of control over website interactions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.

	Hypothesis 10: The effect of customers' perception of control over website interactions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.
	Hypothesis 11a: The effect of customers' positive emotions on trust towards a company is stronger for promotion-focus customers than for prevention-focus customers.
	Hypothesis 11b: The effect of customers' negative emotions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.
	Hypothesis 12a: The effect of customers' positive emotions on intended behaviour towards a company is stronger for promotion-focus customers than for prevention-focus customers.
	Hypothesis 12b: The effect of customers' negative emotions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.
	Hypothesis 13: The effect of customers' trust on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Table 5. Hypotheses overview.

All in all, this thesis aims to contribute to the existing literature by empirically testing the conceptual model of this study to further understand how customers' perception of control over website interactions impacts customers' emotions, trust and intended behaviour towards a company and what is the role of regulatory focus in affecting those relationships. The next chapter of this thesis outlines the proposed research methodology.

4 Research methodology

After examining the literature review and developing the conceptual model, which is later going to be empirically tested, this section of the thesis outlines the suggested research strategy. The chapter aims to critically review the research methodology that has been adopted to answer the main research questions.

4.1 Introduction

The purpose of this chapter is to justify the research methodology used in the research. The chapter critically reviews and discusses the limitations of the proposed methodology strategy. For this purpose, the chapter is divided into six sub-sections. It starts with a re-introduction of the research aim, followed by an examination of the research philosophy. The next sub-section validates the research design suggested. Particularly, issues of research strategy, study context, unit of analysis and sampling strategy are discussed. Following this, an analysis of two pilots is introduced to establish appropriate measurement scales and questionnaire materials for the research. Afterwards, the final measurement scales and questionnaire are presented. Then, the chapter moves on to the discussion of the main data collection. Finally, the data analysis process implemented in this study is introduced. Lastly, Figure 6 below provides a summary of the research methodology chapter.

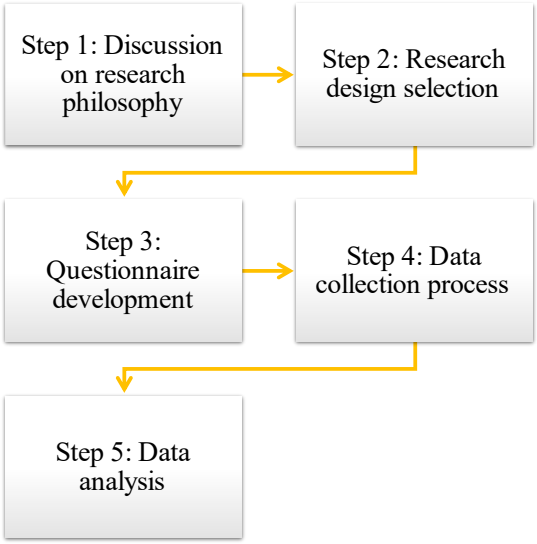


Figure 6. Research methodology chapter's overview.

4.2 Research aim

The main goal of this study is to investigate the role of customers' perception of control over website interactions in shaping customers' emotions and driving trust and intended behaviour towards a company, and to identify what is the role of regulatory focus in affecting those relationships. This research addresses the literature gap on further understanding customers' underlying psychological mechanisms when interacting with a website and its influence in shaping emotions and driving trust and intended behaviours (Ashraf *et al.*, 2016a; Song and Qu, 2018). The research aims to contribute to both academic and practitioners' literature by broadening the understanding of why different customers prefer different ways of interacting with a website and how it might influence customers' responses towards a company. Particularly, this study's purpose is to establish how different types of customers based on regulatory focus orientations as customer personality characteristics respond to the perception of control over website interactions in ways of shaping emotions and driving trust and intended behaviour towards a company. This not only addresses the literature gap but also helps organisations deliver better online experiences based on customers' underlying psychological mechanisms. Ultimately, as the researcher had collaborated with Vodafone UK on parts of this research, a practical example of how this study can be used to adjust interactions and develop new products and services is outlined in Appendix 1. The aim and goals of collaborations are discussed in Chapter 1, Section 1.3.

To meet the research aim, this study adopts a quantitative research method approach. This research builds a conceptual model that later is tested using statistical analysis. Saunders *et al.* (2019) and Sarstedt and Mooi (2014) identify that in quantitative research, constructing the model is one of the most practical ways to demonstrate the causal relationships of the phenomenon under study. Testing of the conceptual model and statistical analysis used is discussed later in this chapter.

4.3 Research philosophy

This section defines the research philosophy and the methodological approach chosen for this study (Figure 6). Research philosophy is divided into three main paradigms: ontology, epistemology, and methodology (Saunders *et al.*, 2019). In philosophy, ontology studies the nature of reality, epistemology is a philosophical study of knowledge, and methodology refers to methods of how knowledge can be obtained (Ghauri *et al.*, 2020). All three research premises

are important parts of research as they identify the researcher's view of reality, knowledge and methods to be used (Saunders *et al.*, 2019).

4.3.1 Ontology

Ontological considerations of the research are related to the nature of reality (Creswell and Poth, 2016). Ontology aims to uncover whether the researcher posits themselves as a separate part of reality (being objective) or embedded into the social reality (being subjective) (Saunders *et al.*, 2019). Hence, objectivist, or realist, ontology states that the researcher exists in the external reality of social actors and does not influence their reality. On the contrary, the subjectivism ontology position indicates that the researcher is an active participant, and this reality is perceived differently by social actors (Creswell and Poth, 2016).

In line with Saunders *et al.* (2019), the following research adopts objectivism ontology as it aims to discover how customers' perception of control over website interactions and their regulatory focus orientations shape customers' customers' emotions, trust and intended behaviours towards a company. Adopting objectivist ontology helps the researcher consider that reality exists independently, and can be scientifically measured by a researcher (Saunders *et al.*, 2019; Ghauri *et al.*, 2020). Employing objectivism ontology supports this research in being objective to the reality under investigation which in turn helps to produce a generalisable and applicable to different context results (Holden and Lynch, 2004).

It can be argued that customers' regulatory focus orientations, emotions, and trust are subjective because they are different to each individual. However, building upon the argument of Hunt (1991) this study suggests that psychological states such as customers' regulatory focus orientations, emotions, and trust exist independently of researchers' labelling them by stating they are real and exist regardless. Additionally, a question might arise on how to measure customers' psychological mechanisms such as regulatory focus orientation. Yet, literature has shown that customers' personality traits have been studied extensively in psychology fields adopting an objectivist approach (Wu *et al.*, 2019). Thus, consistent with Saunders *et al.* (2019), objectivism permits the researcher to perceive reality externally regardless of how participants or researchers label it and examine relationships among variables objectively by applying scientific methods (Saunders *et al.*, 2019).

4.3.2 Epistemology

In contrast to ontology considerations, Davies and Hughes (2014) outline that epistemology relates to the philosophical study of knowledge. Positivist epistemology refers to an assumption that acceptable knowledge is observable and measurable through scientific methods (Goertz and Mahoney, 2012; Antwi and Hamza, 2015; Ghauri *et al.*, 2020; Bell *et al.*, 2022). Alternatively, interpretivism epistemology relates to subjective ontology stating that social phenomenon should be studied by exploring the opinions, meanings and feelings of social actors (Goldkuhl, 2012; Bell *et al.*, 2022).

Following objectivist ontology, this research follows positivism paradigms as it aims to investigate how customers' perception of control over the website interactions influences customers' emotions, trust, and behavioural outcomes as well as how regulatory focus influences those relationships. In line with Crotty (1998), Saunders *et al.* (2019, p. 145) point out that positivists are looking to establish "law-like" generalisations by exploring causative relationships in data. Considering that the research investigates the relationships between customers' underlying psychological mechanisms, the perception of control over website interactions, and behaviour, the positivism paradigm allows the researcher to focus on developing hypotheses that can be tested and measured with the help of statistics. Embracing positivism supports this research in producing generalisable findings which are applicable beyond specific contexts or populations. Following this, the researcher is more interested in investigating causative relationships between the constructs rather than focusing on exploring the subjective perceptions of reality by different social actors (Holden and Lynch, 2004).

Following positivist philosophy assists this research in utilising existing concepts to predict behaviours (Remenyi *et al.*, 1998). Therefore, adopting positivism paradigms helps the researcher to develop a measurable model based on the literature and theories. This in turn supports this study in producing quantifiable findings that can be replicated and generalised to different contexts (Saunders *et al.,* 2019, p. 146). Furthermore, as established in Chapter 2 and Chapter 3, the existing research calls for empirical evidence on developing causal relationships between customers' perception of control over website interactions, regulatory focus, customers' emotions, trust, and intended behaviour towards a company. Thus, adopting positivist paradigms is considered to be appropriate for this study.

4.3.3 Methodology

Once ontological and epistemological considerations have been taken into account, this section discusses the methodological choice of the research. Bell *et al.* (2022) identify that there are three methodological approaches that the research can follow: quantitative research method, qualitative research method or mixed methods. While quantitative research focuses on systematic and numerical data analysis, qualitative research aims to understand the thoughts and opinions of participants (McCusker and Gunaydin, 2015). Quantitative methods benefit from targeting a larger number of respondents and findings can be generalised to the whole population, whilst an advantage of the qualitative approach is its capability to interpret feelings, experiences and meanings of participants' actions (Rahman, 2017). Yet, Saunders *et al.* (2019) argue in reality most business research combines elements from both quantitative and qualitative methods which is referred to mixed method approach.

Grounded in objectivist ontology and positivist epistemology, this study adopts a quantitative research method. According to Saunders *et al.* (2019), quantitative research examines the relationships between variables using numerical techniques. As this research investigates how customers' perception of control over website interactions influences customers' emotions, trust, and intended behaviour towards a company as well as how customers' regulatory focus impacts these relationships, adopting quantitative research is deemed to be appropriate. This supports the researcher in generating testable hypotheses based on the current knowledge and determining causal relationships between identified variables (Antwi and Hamza, 2015).

Additionally, adopting quantitative research methods allows the researcher to conduct the study that potentially can be replicated and applied to other contexts. Indeed, in his ground-breaking research, Davis (1989) has used quantitative techniques to predict individuals' behaviour towards technology acceptance. Today, his technology acceptance model is one of the most widely used models to project consumers' behaviour in the context of different technologies (Koenig-Lewis *et al.,* 2015). Similarly, Higgins (1998) applied quantitative techniques in establishing and later examining regulatory focus theory which is now a foundation for many studies in consumer behaviour and psychology. Hereafter, as this research uses the context of mobile network provider, employing quantitative research methods will allow future research to replicate this study in other contexts.

Finally, based on the research of Remenyi *et al.* (1998) and Saunders *et al.* (2019) applying quantitative research methods assists the researcher in establishing the causation and allows to

test relationships between customers' perception of control over website interactions, regulatory focus, customers' emotions, trust, and intended behaviour towards a company. This, in turn, allows the researcher to produce objective, relatable, generalisable and structured research (Saunders *et al.*, 2019). To conclude, as this research aims to assess how customers' regulatory focus and perception of control during online interactions shape customers' emotions, trust, and behavioural outcomes, quantitative techniques are deemed to be the most appropriate as they utilise numerical data from where conclusions can be drawn.

Once the research philosophy and methodological choice have been discussed, the next section describes the research design (Figure 7).

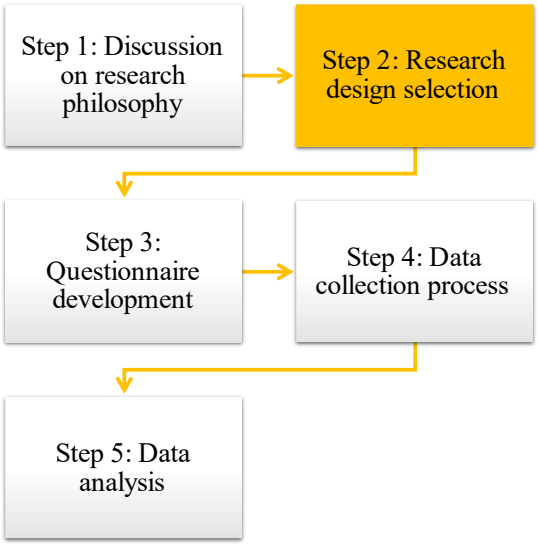


Figure 7. Research methodology chapter's flow (Step 2).

4.4 Research design

The following sub-section critically reviews the adopted research design for this study. Sub-section begins with examining the chosen research approach, followed by discussing the research strategy. Next, the study context is described and evaluated. Following this, the unit of analysis and sampling strategy are presented. Lastly, the sub-section finishes by reviewing the data collection method of this study.

4.4.1 Research approach

Once the research philosophy is discussed and the appropriate methodology is selected, the next crucial part is to identify the research approach of this study. Traditionally, there are two contrasting approaches to theory which are used in social sciences: deductive reasoning and inductive reasoning (Saunders *et al.*, 2019). Deductive reasoning aims to draw research conclusions by testing the theory, while inductive reasoning aims to generate theory based on data collected (Saunders *et al.*, 2019). Although deductive and inductive approaches are the most common in social sciences research, Saunders *et al.* (2019) point out that there is also abductive research logic, where the researcher observes the "raw" data and then looks for a theory to explain it (Suddaby, 2006). Grounded in positivist epistemology, this study employs a deductive research approach. The research develops a conceptual model and set of hypotheses based on existing theories and literature, which are later tested by utilising quantitative research methods (Saunders *et al.*, 2019).

As this study's goal is to identify causal relationships between customers' regulatory focus orientation, perception of control over website interactions, and customers' emotions, trust, and intended behaviour, adopting deductive research reasoning appears to be the most appropriate. Bell *et al.* (2022) point out that deduction most of the time follows positivist research philosophy as it aims to explain causal relationships and draw generalisable conclusions. In line with the deductive research approach, the researcher critically reviews existing literature (Chapter 2) and then develops a conceptual model and relevant hypotheses in line with existing literature (Chapter 3), which are later tested (Chapter 5), followed by results discussion and theory confirmation (Chapter 6). After the research approach has been decided, the next vital step is to consider the research strategy for this study.

4.4.2 Research strategy

This sub-section proposes the research strategy for the study. Originally, the researcher aimed to adopt an experiment as a research strategy to investigate causative relationships between independent and dependent variables in different manipulation conditions (Easterby-Smith *et al.*, 2012). Accordingly, pilot 1 and pilot 2 followed this research strategy. However, due to time constraints and other challenges faced by collaboration with Vodafone UK, the researcher had to employ another research strategy for this study. Saunders *et al.* (2009) point out that in business studies experiments are not largely used because experiments are hard to control and manipulate as management concepts are interdependent with each other. Figure 8 below represents changes the researcher had to make to the research design. Moreover,

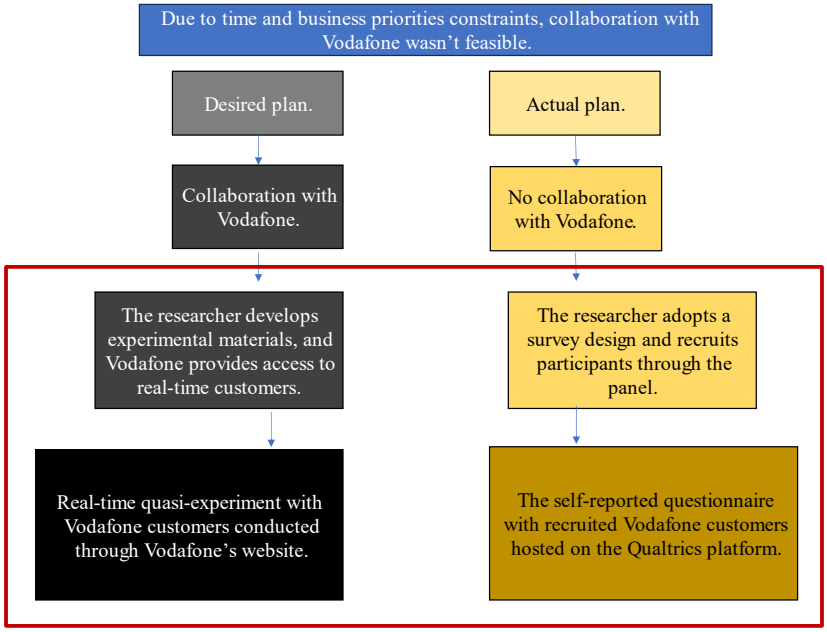


Figure 8. Desired vs Actual plan for data collection.

Hereafter, in line with objectivism-positivism paradigms, this study adopts a survey as a research strategy. Specifically, as this study's goal is to investigate the relationships between customers' regulatory focus orientations**,** customers' perception of control over website interactions, customers' emotions, trust and intended behaviour towards a company, adopting survey design is fitting to the research aim. Utilising surveys as a form of research strategy allows the researcher to collect data from a large number of respondents which in turn assists with easy comparisons between customer groups based on their regulatory focus orientation (Saunders *et al.*, 2019).

Whilst the survey does not allow manipulation of independent variables as experiments, the survey strategy helps the researcher to identify reasons for causal relationships in the model (Sekaran and Bougie, 2016; Saunders *et al.*, 2019). Additionally, Saunders *et al.* (2019) point out that adopting a survey strategy together with probability sampling helps the researcher to draw generalisable conclusions which are representative of the whole population. Hence, as this study aims to investigate how customers' perception of control over website interactions and customers' regulatory focus orientation affects customers' emotions, trust and intended behaviour towards a company, employing the survey strategy is considered to be appropriate.

However, adopting the survey strategy has several disadvantages. Firstly, as the survey strategy typically involves questionnaires as a main data collection method, the researcher would have to deal with issues of recall such as participants needing to recall their most recent interaction with a website (Saunders *et al.*, 2019). To ensure that respondents recall the most recent interaction, the researcher introduced screener conditions such as to qualify for this study, participants would have bought a mobile phone plan within the last 12 months online. On the other hand, Saunders *et al.* (2019) argue that the hardest part of the survey strategy is to correctly identify questions to meet the research aim and objectives. To overcome this challenge, the researcher performed an extensive literature search and conducted several pilots to pre-test selected measures.

To conclude this discussion, the survey is the most appropriate research strategy for this study because it examines the causal relationships between suggested variables, upon which conclusions can be drawn that would add merit to existing literature and theory. The next section of this chapter reviews the study context for this research.

4.4.3 Study context

The telecommunication industry has been chosen as a context for this study. Interestingly, whilst the telecom market is set to be worth £11.3 billion by 2026, it is also has been in decline since 2016 (MarketLine, 2017; Mintel, 2022). For instance, the COVID-19 pandemic resulting in rising inflation and prices makes customers more price-savvy and more likely to commit to longer phone contracts (Mintel, 2022). The market research report indicates that besides price, recommendations and first-class experience coupled with loyalty programs become valuable decision-making drivers (Mintel, 2022). Consequently, with 44% of consumers buying a mobile phone plan through mobile network provider websites, it has been incredibly important

for mobile network providers to deliver high-quality online experiences to ensure customer loyalty and earn recommendations to friends and family (Mintel, 2022).

A crucial need of telecom providers to deliver exceptional online experience coupled with uncertainty in the market, makes the telecom industry a perfect study context. Firstly, traditionally telecom market has a high switching behaviour, where customers are always looking for a cheaper deal (Mintel, 2022). Therefore, it would be noteworthy to investigate how customers' perception of control over website interaction influences customers' emotions, and as a result trust and intended behaviour towards a company. Secondly, as this research aims to examine how customers' underlying psychological mechanisms, such as regulatory focus orientations, and perception of control over website interactions impact customers' emotions, trust and behavioural responses towards a firm, it supplies important insights for mobile network providers on customers' retention.

As part of this research, the researcher planned to collaborate with Vodafone UK, one of the historical and major telecom providers in the UK. The aims, goals, and results of this collaboration are discussed in Chapter 1, Section 1.3. Unfortunately, collaboration wasn't feasible due to PhD time constraints and Vodafone's commercial priorities. One of the many benefits of collaborating with Vodafone was the possibility for the researcher to measure actual purchase behaviour on the website. In the existing literature, measuring actual behaviour is a novel empirical contribution as much of the research is focused on measuring intentions. Nonetheless, in-line with Fishbein and Ajzen (1975), measuring actual behaviour comes with a lot of methodological implications as the actual behaviour is influenced by various factors that the researcher cannot account for. Therefore, in social research, measuring intended behaviour is an appropriate alternative to measuring actual behaviour.

Although the researcher couldn't go through full-scale collaboration with Vodafone, it has been decided to conduct a study amongst Vodafone customers. There are a few reasons for this decision. Firstly, Vodafone UK brand is a well-established and respected telecom brand in the UK (Mintel, 2018; Mintel, 2020; Mintel, 2022). Secondly, throughout its history, Vodafone UK has been known to be a brand with issues in delivering high-quality customer experience (MarketLine, 2017; FT, 2018). Lastly, through the last couple of years, Vodafone UK has been going through a major digital transformation, ensuring that its digital interactions are up to industry standards (Vodafone, 2023). Hereafter, the combination of those factors, makes Vodafone UK an appropriate context for this study.

To conclude, testing the research model in the telecom industry, particularly with Vodafone UK, adds value to the research. After the study context has been identified, the next sub-section focuses on assessing the unit of analysis of this research.

4.4.4 Unit of analysis

The next essential step in conducting research is to identify the unit of analysis and sampling strategy. To begin with, recognising the unit of analysis is important as it helps to narrow down what population is going to be under investigation (Bernard, 2013). Zikmund *et al.* (2013) suggest that the unit of analysis should be aligned with the research objectives and theoretical foundations of the research. Supporting Saunders *et al.* (2019), the extensive literature search indicates that in consumer behaviour research, organisations or consumers are the most common unit of analysis. In line with previous literature and the research aim, an individual customer is utilised as a unit of analysis. Customers as respondents add value to the research by sharing their opinions and feelings towards website interactions, together with their emotions, trust, and intended behaviour outcomes.

4.4.5 Sampling

After the unit of analysis has been defined, the next step of the research process is to decide upon a sampling strategy. According to Saunders *et al.* (2019), it is impractical and nearly impossible to conduct a study among the full population indicating the significance of implementing a sampling strategy. Employing sampling helps the researcher to collect data from appropriate sub-groups rather than from all populations (Bell *et al.*, 2022). In this study, customers are chosen as participants to explore their emotions, trust, and intentions towards an organisation after interacting with a mobile network provider website. However, as it is nearly impossible to talk to every customer, a properly defined target population and as a result, the sample helps the researcher to collect accurate and comprehensive data (Saunders *et al.*, 2009, p. 292).

Originally, as previously described in this chapter, the researcher hoped to collaborate with an organisation for this study meaning that the full sample should have been provided by an organisation. Whilst the researcher managed to pursue Vodafone UK to work together, due to time restraints and other unfortunate circumstances, the researcher had to pursue other avenues of collecting the rest of the empirical data. Thus, the researcher had a choice of exploiting either a non-probability or probability sampling strategy (Saunders *et al.*, 2019).

Traditionally, in quantitative research, probability sampling is used which has an equal chance to select each group of the target population (Neuman, 2014). Therefore, grounded in positivist research methodology, probability sampling is selected. Sekaran and Bougie (2016) outline that probability sampling has a better chance of generalising the findings. In line with research aims and objectives, stratified random sampling is adopted as a type of probability sampling. Stratified random sampling helps the researcher to divide the target population into two or more sub-groups (strata) based on similar attributes (Saunders *et al.*, 2019). This type of sampling supports this research by drawing upon precise groups of the target population and ensuring the representativeness of the sampling (Saunders *et al.*, 2019).

The inclusion criteria for the sampling strategy have been identified as follows:

- Be a UK customer of Vodafone UK.
- Purchase of a mobile phone plan online within the last 12 months.
- Be at least 18 years old.

As previously mentioned (Chapter 4, Section 4.4.3), the researcher hoped to collaborate with Vodafone UK on this study. However, due to financial and time constraints, it wasn't feasible anymore. Nonetheless, at the time of the data collection, Vodafone UK was still interested in the research and therefore, the researcher limited the sample to Vodafone UK customers only.

Saunders *et al.* (2019) recognise that sample size depends upon the agreed research strategy and statistical analysis followed. For instance, Remenyi *et al.* (1998) suggest that sample size should be decided based on the amount of identified relationships and sub-groups in the model. Thus, as this research involves a comparison of groups based on regulatory focus orientation, analysis of the literature indicated that a minimum sample size for this study should be 30 for each personality characteristic. Moreover, as this research follows multivariate analysis techniques, particularly PLS-SME, the final data set should meet the sample requirement of multivariate analysis (Chapter 4, Section 4.8.1). According to Hair *et al.* (2017, p. 42), one of the following sample size conditions should be met (Barclay *et al.*, 1995)

The sample size should be:

(1) 10 times the largest number of formative indicators used to measure a single construct,

(2) 10 times the largest number of structural paths directed at a particular construct in the structural model.

Lastly, data collection is outsourced to a third-party firm called Qualtrics to gain access to the desired sample. Qualtrics supported the researcher in hosting this study's questionnaire and recruiting and fitting the identified sample participants. While the researcher handled the design of the questionnaire, Qualtrics assisted the researcher with setting up appropriate quotas and screening criteria to ensure that this study targets the required population.

4.4.6 Research instrument

A self-administrative questionnaire is adopted as the main method of data collection. Questionnaires are used under positivist paradigms as they help to collect data from a bigger population which in turn allows for generalise findings (Sekaran and Bougie, 2016). In line with Saunders *et al.* (2019), self-completed questionnaires are implemented in explanatory quantitative research as they allow for the recording of participants' attitudes, opinions, and behaviours about a particular topic. Self-completed questionnaire allows participants to respond at their convenience in their own time compared to researcher-completed questionnaires (Saunders *et al.*, 2019). Compared to other types of questionnaires, self-completed questionnaires support this study in gathering information from a larger sample about the non-observable phenomenon (Sekaran and Bougie, 2016). Indeed, this research aims to investigate customers' regulatory focus orientation as well as customers' emotions, trust, and intended behaviour towards an organisation, which are difficult to observe as they are considered to be "state of mind". In current research, utilising self-completed questionnaires allows the researcher to gain insights into participants' opinions and feelings towards identified constructs in the model (Neuman, 2014).

Furthermore, employing the self-completed questionnaire reduces social bias as respondents are not influenced by the researcher or other participants, or respond to the survey questions in a socially desirable way (Dillman *et al.*, 2014). Hence, as the research aim is to explore relationships between customers' regulatory focus, customers' perception of control during website interactions, and customers' emotions, trust and behavioural evaluations, the self-completed questionnaire fits the purpose of this research (Bell *et al.*, 2022).

However, Saunders *et al.* (2019) point out that whilst a questionnaire is the most common and efficient way to collect quantitative data, it has its limitations. Saunders *et al.* (2019) outline that it could be challenging to pinpoint the questions in the questionnaire to ensure that it meets

the research aim and objectives. Following this, the researcher also needs to ensure that the measures used in the questionnaire are appropriate (Zikmund *et al.*, 2013). To address this challenge, the researcher conducted a throughout literature analysis and used measures that have already been tested in the literature. Additionally, it is important to ensure that by adopting a questionnaire, this study does not suffer from issues of common method bias (CMB) (Saunders *et al.*, 2019). CMB typically refers to a type of error where variations in responses are caused by measurement methods rather than the actual constructs (Hair *et al.*, 2014; McCusker and Gunaydin, 2015; Neuman, 2014). Here, the researcher ensures that the study doesn't suffer from CMB by mixing different types of questions, randomising the order of answer codes, and creating attention-check questions (Saunders *et al.*, 2019).

Furthermore, as the researcher decided to distribute the questionnaire online to reach participants in different geographical locations, this type of delivery has an issue of low response rate (Dillman *et al.*, 2014). Aligned with this, Saunders *et al.* (2019) indicate that there is no ideal length of questionnaires as short questionnaires do not answer research questions, whereas lengthy questionnaires might result in a lower response rate. To overcome issues of low response rate, Saunders *et al.* (2019) suggest including a cover letter indicating the aim of the research together with the researcher's contact details if participants have any questions. Additionally, the researcher also pre-tested the final questionnaire to ensure that it meets the goal of this study and is visually appealing to respondents. To ensure that respondents are engaged and attentive, the researcher implemented attention filter questions which included interesting facts about the Internet and mobile phones.

In sum, allowing for all the benefits and drawbacks of the questionnaire data collection method, it is still considered to be the most suitable data collection method for this study. The next sub-section outlines the development of measurement scales and questionnaire materials through two pilot studies (Figure 9).

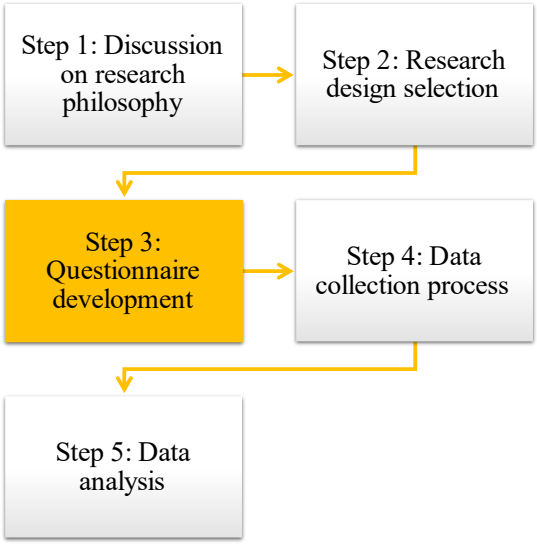


Figure 9. Research methodology chapter's flow (Step 3).

4.5 Measurement scales, questionnaire testing and development

Before the final launch of the study questionnaire, it is a widespread practice to run a set of pilot studies to help the researcher redefine the study. This section focuses on the development and testing of measurement scales and questionnaire materials. To do so, two pilot studies were conducted preceding the main data collection. The first pilot study aimed to refine the study context and selected measures. The second pilot focused on further development and testing of questionnaire materials and research context. After the analysis of pilot studies, the modification of measurement scales and study context took place for the final version of the study questionnaire. Both pilots' procedures and analysis are discussed in the section below.

4.5.1 Pilot study 1

The first pilot study was conducted in September 2021 via the Qualtrics platform. The first pilot aimed to assess the complexity of the conceptual model, test the identified measures and materials, and refine the research context. The pilot used a convenience sample of 155 participants.

The pilot study was run in a telecommunication context, where participants were told that they were looking to buy a new mobile phone contract and needed to do so with the help of a live chat. As originally the researcher planned to utilise the experiment research method for the main data collection, this pilot followed a quasi-experiment research design. Nonetheless, the

following pilot study helped the researcher redefine the study context in addition to further developing measurement scales for the final questionnaire.

The pilot had two experimental conditions. Firstly, participants were randomly assigned to the first three manipulations: positively reviewed firm (n = 51), negatively reviewed firm (n = 56), and neutrally reviewed firm (n = 48). Secondly, respondents were further randomly distributed to other two conditions: high control interaction (n = 74) and low control interactions (n = 81). Table 6 presents the breakdown of manipulations used in the pilot. Pilot 1 experimental materials and measurement scales can be found in Appendix 2.

Manipulation condition (1)	N1 of participants	Manipulation condition (2)	N1 of participants
Positively reviewed firm	51	**High control interaction**	74
Negative reviewed firm	56	**Low control interaction**	81
Neutral reviewed firm	48		
Total	155		155

Table 6. N of participants per manipulations in the pilot study 1.

In low-control intervention, a chatbot had control over when to transfer to a human adviser, while in high-control intervention, a customer asked a chatbot to get transferred to a human adviser. Low control refers to a condition, where participants have low control over their interaction as the chatbot decides when to transfer to the human adviser, and high control refers to a condition, where participants have high control over their interaction as they are in control of the transfer.

Concerning measurement scales, the questionnaire was divided into three main parts. Firstly, before any interventions, participants were measured on regulatory focus scales developed by Higgins *et al.* (2001) to assess their regulatory focus orientation. Next, after presenting with manipulations of different reviews of the firm, participants were presented with manipulation check question and their trust and emotions towards this firm. After this, manipulations of control are presented. After manipulations, participants were asked a range of questions to evaluate their interaction experience. Lastly, the questionnaire finished by asking participants about their trust, emotions and intended behaviours.

Simple statistical analysis was used to analyse the data. The first set of analyses examined the reliability and validity of measures. Analysis revealed that most of the scales showed acceptable levels of reliability. High levels of reliability are expected as measurement scales have been previously tested in different contexts in the existing literature. However, the regulatory focus scale demonstrated issues of reliability which are discussed further in this

section. Next, to ensure that manipulation of control (point of transfer: low control vs high control) has worked as expected, *t*-tests have been performed. Independent t-tests evaluate *"whenever the means of two groups are statistically different from each other"* (Stockemer, 2018, p. 101). *T*-test is generally used to assess the difference between two equal groups with output consisting of two crucial parameters: *t*-value and *p*-value (Hair *et al.*, 2019a). As a rule, the greater *t* statistics with a *p*-value equalling .05 or less, the more likely there will be a statistically significant difference between groups (Saunders *et al.*, 2019). As predicted, in low control condition, participants indicated that the chatbot was in control of interaction (M = 4.23, *SD* = .82; $t(134) = 12.143$, $p < .001$); whereas in high control condition, participants anticipated that a customer was in control and could ask for a transfer to a human at any time (M = 3.93, *SD* = 1.15; $t(153) = 1.239$, $p < .001$).

Conversely, the next step is to run a simple *t*-test to further examine differences between groups. Similarly to the *t*-test, the output of the ANOVAs table consists of *F* statistic and *p*-value (Stockemer, 2018). The larger the value of the *F* statistic, the more likely at least two groups are significantly different from each other (Stockemer, 2018, p. 116). The researcher employed ANOVA as they hoped to perform a further comparison between customers with promotion and prevention focus on scales of perceived control online. However, as no significant difference has been found (Table 7), two-way ANOVA has shown that there is no statistically significant interaction effect of regulatory focus and customers' perception of control on engagement variables, $F < 1$. Whilst a simple *t*-test is typically employed for the comparison of two groups, one-way ANOVA can be also adopted (Sarstedt and Mooi, 2014; Saunders *et al.*, 2019).

Nonetheless, statistical analysis demonstrated that two control manipulations did not show a significant difference on the scale of perception of control, $F(1, 151) = 1.123$, $p = .29$, but did show a significant difference when assessing the concept of responsiveness, $F(1, 151) = 4.136$, $p = .031$ (Table 7).

Main effect of control intervention										
Model's constructs	**Condition**	**N**	**Mean**	**Std. Error**	**Levene's test**	**Difference**	**95% Confidence Interval**		**ANOVA**	**Sig**
Responsiveness	Low	81	3.91	.09	$p = .402$	.279*	.03	.53	**$F(1,155) = 4.746$**	**.031**
	High	74	3.63	.09		-.279*	-.53	-.03		
Perception of control	Low	81	3.33	.09	$p = .748$	-.14	-.40	.12	$F(1,155) = 1.123$	.290
	High	74	3.47	.10		.14	-.12	.40		

Table 7. Main effect of control interventions on responsiveness and perceived control

Based on the analysis below, it is argued that the researcher manipulated the perception of responsiveness rather than the perception of control. Specifically, whilst participants understood the notion that either customers or chatbot was in control of interactions, the manipulation itself influenced participants' perception of responsiveness rather than the perception of control. Therefore, it can be observed that the pilot had several challenges which are discussed in more detail in the next section.

4.5.2 Challenges and further amendments

Drawing upon the analysis of the pilot, several weaknesses of this study design have been identified. To begin with, statistical analysis has been conducted to assess the reliability and validity of the regulatory focus scale. Upon investigation, factor analysis reveals that several items amongst promotion and prevention dimensions did not have the appropriate level of factor loadings and have been dropped from further analysis (Appendix 3). The overall factor loading for the promotion and prevention scale was in the range of .05. Cronbach's alpha for the promotion-focus scale is .63 which is acceptable but is the lowest amongst other scales in the survey. One of the explanations for the low reliability and factor loadings might be the length and structure of the scale. Questions in the survey might have been phrased too complex and participants did not fully understand items within the scale. For instance, Haws *et al.* (2010) argue that the original regulatory focus scale developed by Higgins *et al.* (2001) focuses only on past orientations of individuals and lacks present- or future- orientated items. Moreover, coming from the psychology field, regulatory focus is only gaining popularity in online consumer behaviour and has been primarily used in online interactions and advertising contexts (Lee *et al.*, 2010; Kim and Sung, 2013; Khajehzadeh *et al.*, 2014). This further adds to the conclusion that empirical materials and context need to be redefined.

As was pointed out in the earlier section, manipulations of control did not work as expected. A two-way ANOVA showed that participants understood the manipulation in terms of various perceptions of responsiveness, rather than perceptions of control. This can be because the point of transfer might have not been the best context to manipulate the perception of control as it might have not been clear to all participants. Additionally, as control interventions have been manipulated through video scenarios, it might have been harder to understand the difference in point of transfer between the two. These findings have prompted the researcher to redefine the

context and experimental materials to establish a clear difference between feelings of control in online interactions.

Interestingly, whilst there were no significant differences between promotion and prevention participants on perception of control, $F(1, 151) = 2.822, p = .095$, pair-wise comparison revealed the mean difference of .220 95% CI [-.039, .478], between prevention- (M (*prevention*) = 3.51, SE = .09) and promotion- (M (*promotion*) = 3.29, SE = .01) focus participants. Therefore, further data collection is needed to determine exactly how regulatory focus might affect customers' perception of control and subsequent emotions, trust and intended behaviours during online interactions.

Overall, the pilot's results provide important insights into further development of the main data collection. Taken together, these results suggest that the researcher needs to re-visit the main constructs and re-evaluate the context of the study to fit the goal of this research. Specifically, measurement scales of the main constructs are re-considered as well, and the context of the study is re-defined. Table 8 below provides an overview of Pilot 1 and its contribution to the development of materials for the final study. To address the identified issues in pilot 1, the next section discusses the second pilot of this study.

Aim of the pilot	Context and experimental materials	Drawbacks	Learnings and further alterations
The first pilot aimed to assess the complexity of the conceptual model, test the identified measures and materials, and refine the research context.	The context of this study is live chat interactions with a chatbot or a human advisor, where different levels of control are manipulated. In low-control intervention, a chatbot had control over when to transfer to a human adviser, while in high-control intervention, a customer asked a chatbot to get transferred to a human adviser. Low control refers to a condition, where participants have low control over their interaction as the chatbot decides when to transfer to the human adviser, and high control refers to a condition, where participants have high control over their interaction as they are in control of the transfer.	Statistical analysis reveals that the suggested research context and specifically conducted manipulation of perceived control did not work as predicted. Participants recognise manipulation as manipulating perceptions of responsiveness rather than perceptions of control. Additionally, statistical analysis demonstrates issues of regulatory focus measurement scale.	• **Employing different context:** As a result of this pilot, the researcher concluded suggested context is not considered to be appropriate for the manipulation of the perception of control. This can be because the point of transfer might have not been the best context to manipulate the perception of control as it might have not been clear to all participants. As control interventions have been manipulated through video scenarios, it might have been harder to understand the difference in point of transfer between the two. Therefore, different experimental scenarios are suggested for pilot 2.

			• **Employing different measurement scales for regulatory focus:** Analysis determines that the regulatory focus scale adopted by Higgins *et al.* (2001) is deemed not to be appropriate for this study and another regulatory focus scale is suggested for pilot 2.

Table 8. Pilot 1 summary.

4.5.3 Pilot study 2

The second pilot was conducted after the researcher secured collaboration with Vodafone UK, the British telecommunication company. The second pilot took place in March 2022 via UzerZoom with 15 participants recruited by Vodafone UK. In addition to the second pilot, as part of the collaboration, the researcher has conducted several quantitative studies on the influence of customers' personality characteristics on website interactions and behaviours (see Appendix 1 for reference). Here, the researcher has extensively tested new measures of regulatory focus to be used in the main study. Running separate quantitative studies in collaboration with Vodafone UK on understanding customers' mindsets when interacting with a website, has helped the researcher to re-evaluate the existing and add new constructs to the model for further investigation on how customers prefer to interact with digital channels. Hence, the main purpose of the second pilot was to re-assess the experimental materials, and new questionnaire scales and to test the new proposed context.

As demonstrated by the first pilot, the context of the study had to be reconsidered. After thorough literature analysis and several brainstorming sessions, it has been decided to use interactions with a website such as buying a new mobile phone plan as potential context for this study. The reasoning for this lies within website interactions being the most used digital touchpoint for Vodafone and theoretically, one of the most researched digital contexts in the existing literature. Furthermore, at this stage, the researcher has collaborated with Vodafone on various customer profiling studies based on website interactions (see Appendix 1 for reference).

For this pilot study, the manipulation of control was orchestrated by incorporating filter and sort by function on the Vodafone website for the high-control condition, and no filter and sort by function was present for the low-control condition. These experimental scenarios aligned with Vodafone UK's future testing as the next step was to incorporate those functionalities on

the live website allowing the researcher to test hypotheses in a real-life setting. However, the literature argues that manipulation of filters or sorting by functionality on the website might not correspond to the perception of control, but rather to the perception of interactivity (Wu, 2005; Song and Zinkhan, 2008). This was challenged by Jiang *et al.* (2010) who stated that filtering or sorting by functionality relates to the active control of web interactions as customers are in control of how information is presented. This is in line with Kirk *et al.* (2015) who recognise perceived control as the main and differential domain of interactivity. Supporting this, the researcher decided to use suggested manipulation materials and to test the model in the website interactions' context. The researcher had to adopt a different measurement scale of perception of control which is more relevant to the website interaction context (Appendix 4).

A statistical analysis using SPSS was performed. Firstly, the issues of the researched context in Pilot 1 are addressed by performing manipulation checks. Manipulation checks were conducted to ensure that interventions have worked as predicted. Manipulation checks have revealed that participants understood manipulations and perceived them on different levels of controls, $t(13) = 2.709$, $p = .018$, M *(low-control condition)* = 2.29, M *(high control condition)* = 4.. This has been further supported by running the *t*-test on assessing the influence of manipulations on control perceptions, $t(13) = 2.890$, $p = .006$, M (*high-control condition)* = 4.02, M *(low-control condition)* = 2.88. Therefore, it is concluded that manipulations have been successful, and the website content is suitable for the main data collection.

Next, the researchers address the issues of the regulatory focus scale identified in Pilot 1. Following the challenges of the first pilot, the newly adopted regulatory focus scale by Lockwood *et al.* (2002) showed an acceptable level of reliability (Cronbach's alpha > .70) and validity. Table 9 presents the results of reliability testing (Cronbach's alpha) and validity testing (Factor analysis with VARIMAX rotation and Average Variance extracted) for the newly adopted regulatory focus scale.

	CRONBACH'S ALFA	**FACTOR LOADING**	**CR**	**AVE**
PROMOTION	**.80**		**.84**	**.56**
I frequent I frequently imagine how I will achieve my hopes and aspirations.		**.691**		
I OFTEN THINK ABOUT THE PERSON I WOULD IDEALLY LIKE TO BE IN THE FUTURE.		**.810**		
I TYPICALLY FOCUS ON THE SUCCESS I HOPE TO ACHIEVE IN THE FUTURE.		**.800**		
IN GENERAL, I AM FOCUSED ON ACHIEVING POSITIVE OUTCOMES IN MY LIFE.		**.694**		

I OFTEN IMAGINE MYSELF EXPERIENCING GOOD THINGS THAT I HOPE WILL HAPPEN TO ME.		**.710**		
	Cronbach's alfa	**Factor Loading**	**CR**	**AVE**
PREVENTION	**.71**		**.72**	**.46**
I frequently think about how i can prevent failures in my life.		**.587**		
I AM ANXIOUS THAT I WILL FALL SHORT OF MY RESPONSIBILITIES AND OBLIGATIONS.		**.725**		
I OFTEN IMAGINE MYSELF EXPERIENCING BAD THINGS THAT I FEAR MIGHT HAPPEN TO ME.		**.715**		
IN GENERAL, I AM FOCUSED ON PREVENTING NEGATIVE EVENTS IN MY LIFE.		**.684**		

Table 9. Reliability and validity indicators of Regulatory Focus scale.

Lastly, two-way ANOVA has illustrated a significant interaction effect of manipulation conditions and regulatory focus on negative emotions. Specifically, prevention-orientated participants had more negative emotions towards Vodafone, when exposed to a low-control condition (M = 3.00) rather than to a high-control condition (M = 1.23), $F(11) = 5.848$, $p = .034$. With the reference to emotions construct, additional analysis has shown a high level of multicollinearity which is discussed in the section below.

4.5.4 Challenges and further amendments

Compared to the first pilot study, the second pilot study has advantages and disadvantages. Firstly, the second pilot showed that the website interactions, particularly buying a mobile phone plan online have been a successful context to evaluate relationships in the conceptual model. Secondly, measurement scales used in the questionnaire were found to be relevant and reliable to the research and research context. Finally, the order of questions has been confirmed as well.

Despite the positive results, pilot study 2 revealed that the survey included long and large Likert-scale questions which might have influenced participants' answers. In research, large Likert-scale questions can trigger participant fatigue which leads to answering multiple questions with the same scores and as a result a straight-lining. For instance, descriptive analysis of the emotions scale has shown relatively similar scores on the range of emotions signposting that participants skimmed through the scale (Table 10).

Emotion	Mean	Std. Deviation	Median	Skewness		Kurtosis	
Interested	3.60	.99	4.0	-1.61	.58	2.82	1.12
Distressed	1.40	.83	1.0	1.67	.58	.90	1.12
Excited	2.93	1.10	3.0	-.60	.58	-.92	1.12
Upset	1.33	.72	1.0	1.98	.58	2.55	1.12
Strong	2.47	1.06	3.0	-.32	.58	-1.14	1.12
Guilty	1.33	.72	1.0	1.98	.58	2.55	1.12
Scared	1.33	.72	1.0	1.98	.58	2.55	1.12
Hostile	1.60	.99	1.0	1.49	.58	1.15	1.12
Enthusiastic	3.07	1.03	3.0	-.60	.58	-.99	1.12
Proud	2.47	1.06	3.0	-.32	.58	-1.14	1.12
Irritable	1.87	1.13	1.0	.99	.58	-.40	1.12
Alert	3.40	.99	4.0	-.97	.58	1.43	1.12
Ashamed	1.27	.59	1.0	2.27	.58	4.79	1.12
Inspired	3.00	1.13	3.0	-.68	.58	-.98	1.12
Nervous	1.47	1.13	1.0	2.70	.58	7.33	1.12
Determined	2.80	1.21	3.0	-.12	.58	-.56	1.12
Attentive	3.33	.98	3.0	-.79	.58	1.29	1.12
Jittery	1.47	.83	1.0	1.40	.58	.14	1.12
Active	3.27	.96	3.0	-.62	.58	1.31	1.12
Afraid	1.47	.92	1.0	2.05	.58	3.65	1.12

Table 10. Emotions descriptive statistics.

Following the results of the second study, two main amendments to the final questionnaire were made. Firstly, the emotions measurement scale was further analysed and re-evaluated leading to reducing the final scale. Emotions scale has been reduced to 10 items: five negative emotions and five positive emotions. Based on results and extensive literature review, the following emotions have been decided to employ in the main study: Ashamed, Angy, Fearful, Sad, Irritable, Happy, Interested, Attentive, Determined, and Inspired (Rossiter and Donovan, 1982; Watson *et al.*, 1988; Roseman, 1996; Éthier *et al.*, 2008; Jones *et al.*, 2008; Ou and Verhoef, 2017). Secondly, it has been suggested to introduce attention filters before large matrix questions. Incorporating attention filters is a widespread practice among researchers as it helps to collect high-quality data by screening out un-attentive or speeding respondents (Saunders *et al.*, 2019). In this questionnaire, attention filters included information about digital products and instructions on how to proceed with the survey. If the question is answered incorrectly, the participant will be transferred to the last page of the survey and their response will be dismissed.

Table 11 provides a summary of Pilot 2 and its important contribution to the main data collection.

Aim of the pilot	Context and experimental materials	Learnings	Further alterations
The second pilot aimed to address the issues of the research context and regulatory focus scales identified in Pilot 1.	The context of the Pilot 2 was website interactions. The researcher used Vodafone's website as the research context where in high-control conditions, customers had a choice of filer/sort by option on the web page, whereas in low-control (default) conditions, customers could not filter, or sort products based on their preferences on the webpage.	Statistical analysis revealed that the manipulation condition worked as predicted and customers in high-control conditions had higher perceptions of control. Furthermore, a newly adopted regulatory focus scale showed high levels of validity and reliability. Pilot 2 indicated that the researcher has a relatively long Likert scale which can result in participants' fatigue.	• Emotions scale has been re-visited and re-evaluated based on results and existing literature. • A decision was made to implement attention filters in the final questionnaire.

Table 11. Pilot 2 summary.

To conclude, conducting both pilot studies has significantly helped the researcher in developing final materials for data collection. The next sub-section discusses the final list of items included in the main questionnaire and the process of data collection.

4.5.5 Final measurement scales and questionnaire determination

After an in-depth analysis of existing literature and two pilot studies, the final questionnaire was generated. Before proceeding with scripting the questionnaire, the study received approval from the University ethics committee. The questionnaire begins with an introduction of the research, followed by questionnaire structure and researcher contact details. All respondents were made aware that the research is conducted as a part of the doctoral study by a PhD Candidate from Henley Business School, University of Reading. Lastly, as part of the welcome page, the consent page has been presented to participants discussing anonymity and confidentiality. The welcome and consent page is found in Appendix 5.

The questionnaire has been divided into five sub-sections such as perception of control over website interactions; customers' emotions, trust and intended behaviour towards a company; regulatory focus assessment; and demographics questions. The questionnaire used five-point

Likert-style matrix rating questions. Specifically, respondents were asked about the extent to which they agreed or disagreed with statements on a five-point Likert scale. When asked about regulatory focus, participants needed to indicate to what extent it was true or untrue of them on a five-point Likert scale. The survey questions are presented below.

The next step in finalising the questionnaire is to include quotas and attention filters. Quotas help to screen out respondents who do not meet sample requirements in addition to ensuring that the precise amount of data is collected (Hair *et al.*, 2012). In line with the research methodology and research objectives, quotas for Vodafone, gender and age have been set up. Furthermore, as discussed in the section above, attention filters have been introduced in the final version of the survey. Participants were presented with an interesting fact about a mobile phone with directions on how to answer this question. If respondents did not answer correctly, their participation was terminated.

The questionnaire starts with screener questions which aim to screen out responses not relevant to this research aim. Two questions are asked as part of a screener which are:

- When was the last time you purchased a mobile phone contract online (Answers past 12 months screen out the participant)?
    - Those who bought a mobile phone contract more than 12 months ago were screened out.
- Who is your current mobile network provider?
    - Non-Vodafone UK customers were screened out (See Section 4.4)

Next, the questionnaire moves on to evaluating participants' online interaction experiences. This study hypothesises that customers' perception of control over website interactions affects customers' emotions, trust and intended behaviour towards a company. Table 12 below presents the measurement scale of customers' perception of control over website interactions (Liu, 2003; McMillan and Hwang, 2002; Wu, 2005; Zhang et al., 2018).

Customers' perception of control over website interactions scale.	
CONTROL1	While navigating on Vodafone's website, I felt in control.
CONTROL2	I felt that I had a great deal of control over my experience with Vodafone's website.
CONTROL3	While on the Vodafone's website, I could choose freely what I wanted to see.

CONTROL4	While on Vodafone's website, I was delighted to be able to choose what I could do.

Table 12. Customers' perception of control over website interactions measurement scale.

The third section of the questionnaire focused on determining participants' feelings and opinions towards Vodafone. Constructs of emotions and trust are measured. The trust construct is adapted from Gefen *et al.* (2003a), while emotions are measured through scales used in existing research (Rossiter and Donovan, 1982; Watson *et al.*, 1988; Roseman, 1996; Éthier *et al.*, 2008; Jones *et al.*, 2008; Ou and Verhoef, 2017). One of the most used ways of measuring both negative and positive emotions was introduced by Watson *et al.* (1988) which is called PANAS (positive affect and negative affect schedule). The measurement includes a balanced scale with 10 positive emotions and 10 negative emotions (Watson *et al.*, 1988). With the scale being validated, Partala and Saari (2015) position that this method benefits from examining both positive and negative emotions. Specifically, using PANAS measurement, Partala and Saari (2015) identify that when adopting technology, individuals feel enthusiasm and interest, however, when adaptation goes wrong, customers feel irritated, upset and frustrated. Hence, based on existing literature and both pilot studies' results, Table 13 provides an overview of the emotions and trust scales adopted in this study.

Trust towards a company measurement scale.	
TRUST1	Vodafone is honest.
TRUST2	Vodafone is trustworthy.
TRUST3	Vodafone cares about customers.
TRUST4	Vodafone provides me with good service.
Emotions towards a company measurement scale.	
NE1	When thinking about Vodafone, I feel… - Ashamed
NE2	When thinking about Vodafone, I feel… - Angry
NE3	When thinking about Vodafone, I feel… - Fearful
NE4	When thinking about Vodafone, I feel... - Sad
NE5	When thinking about Vodafone, I feel… - Irritable
PE1	When thinking about Vodafone, I feel… - Happy
PE2	When thinking about Vodafone, I feel… - Interested
PE3	When thinking about Vodafone, I feel… - Attentive
PE4	When thinking about Vodafone, I feel… - Determined
PE5	When thinking about Vodafone, I feel… - Inspired

Table 13. Trust and emotions measurement scales.

Finally, intended behaviour towards a firm has been evaluated. The intended behaviour is measured based on word-of-mouth and loyalty scales and presented in Table 14 below (Srinivasan *et al.*, 2002; Mero, 2018).

Intended behaviour towards a company measurement scale.	
BEH1	I would encourage friends and relatives to buy a mobile phone plan from Vodafone's website.
BEH2	I would say positive things about buying a mobile phone plan from the Vodafone's website to other people.
BEH3	I would recommend a network provider, and their website to anyone who is looking for a new mobile phone plan.
BEH4	When choosing a new mobile phone plan, I would consider Vodafone's website as my first choice.
BEH5	I would continue to buy from the Vodafone in the future, even if other alternatives are available.
BEH6	I would talk positively about the Vodafone in the future.

Table 14. Intended behaviour towards a company measurement scale.

Lastly, personal characteristics have been assessed. This section of the questionnaire aimed to evaluate participants' personality traits such as regulatory focus orientation. After analysis of the literature and two pilots, the measurement scale of regulatory focus has been adapted from Lockwood *et al.* (2002) research. The regulatory focus measurement scale is divided into promotion-focus and prevention-focus scales and is presented in Table 15.

Promotion regulatory focus scale.	
RFPRM1	I frequently imagine how I will achieve my hopes and aspirations.
RFPRM2	I often think about the person I would ideally like to be in the future.
RFPRM3	I typically focus on the success I hope to achieve in the future.
RFPRM4	In general, I am focused on achieving positive outcomes in my life.
RFPRM5	I often imagine myself experiencing good things that I hope will happen to me.
Prevention regulatory focus scale.	
RFPRV1	I frequently think about how I can prevent failures in my life.
RFPRV2	I am anxious that I will fall short of my responsibilities and obligations.
RFPRV3	I often imagine myself experiencing bad things that I fear might happen to me.
RFPRV4	In general, I am focused on preventing negative events in my life.

Table 15. Regulatory focus measurement scale.

Once the measurement scales of this study have been discussed, the next sub-chapter provides an overview of the main data collection process (Figure 10).

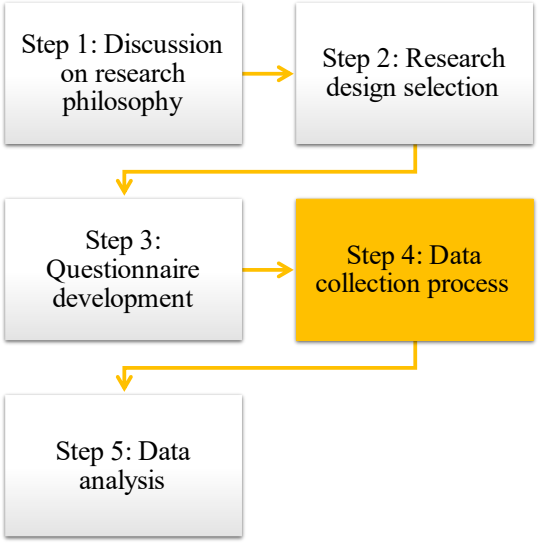


Figure 10. Research methodology chapter's flow (Step 4).

4.6 Main data collection process

As has been mentioned throughout this chapter, the researcher hoped to collaborate with Vodafone UK on this study to collect real behavioural data from real customers. Whilst Vodafone UK and the researcher collaborated on the pilot study, it was not feasible for the researcher to continue the main data collection with Vodafone UK. Reasons behind not feasible collaboration include but are not limited to time constraints, project not being prioritised by Vodafone UK senior management, and resource allocation to conduct this study.

The researcher had to consider other opportunities for data collection. The researcher used the Qualtrics platform to collect responses for this study.

The main data collection took place between the 30th of May and the 12th of June 2022. Recruitment of participants was handled by Qualtrics, and participants had to fill certain criteria which are discussed in this chapter (Chapter 4, Section 4.4.5). A total of 300 took place in completing the questionnaire. This is in line with the minimum sample size requirement identified earlier in this chapter (Chapter 4, Section 4.4.5). After the structure and the content of the final questionnaire have been presented, the last section of this chapter aims to describe the main data analysis (Figure 11).

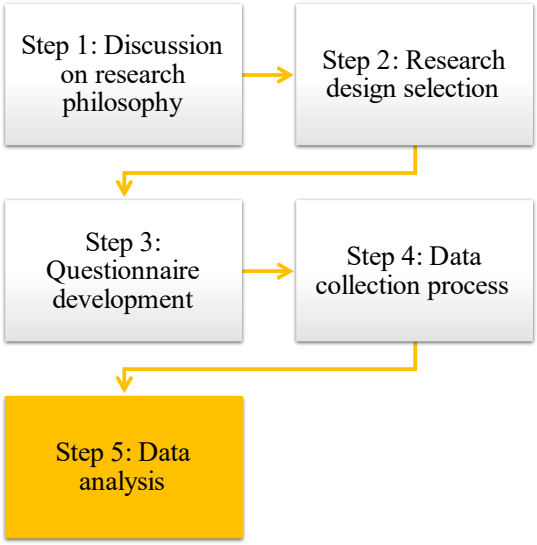


Figure 11. Research methodology chapter's flow (Step 5).

4.7 Statistical data analysis

The following sub-chapter provides an overview of the first step in data analysis which is simple statistics. Firstly, it discusses data cleaning and data preparation for the final analysis. Secondly, an analysis of normality is presented. Finally, descriptive statistical data analysis techniques chosen for this study are critically reviewed. Before moving the data analysis methods evaluation, Figure 12 below provides a recap of the research methodology chosen for this research.

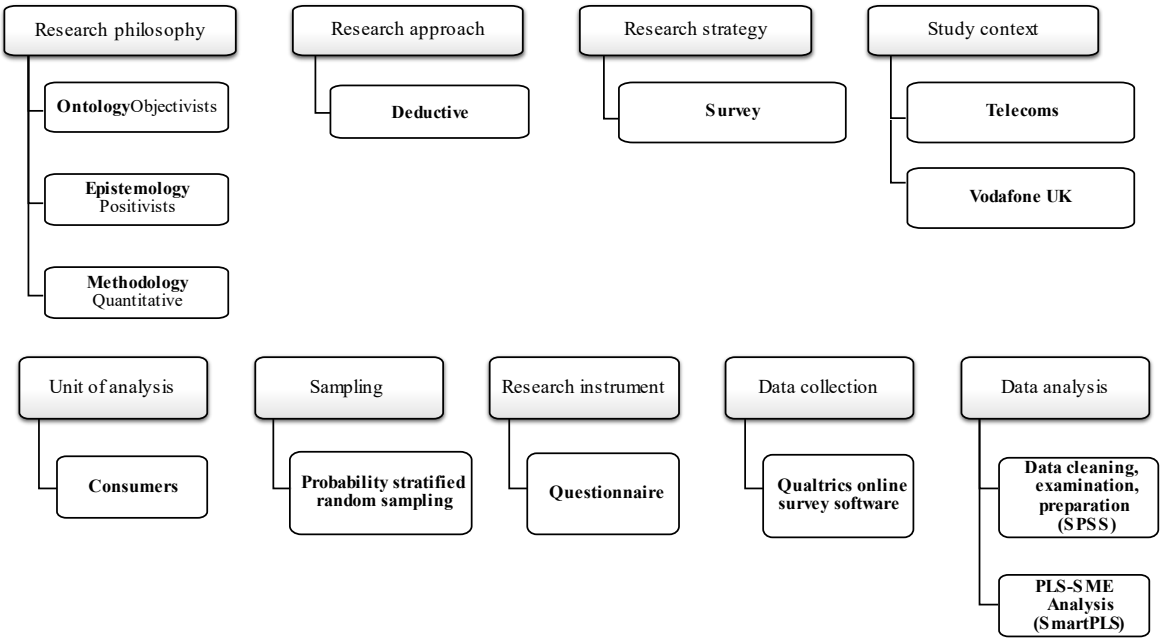


Figure 12. Adopted research methodology of this study.

4.7.1 Data cleaning and preparation

After the data were collected, the next stage was to clean the data and prepare it for final data analysis. To do so, SPSS software was selected to perform data cleaning and preparation. In line with Stockemer (2018), SPSS is a useful statistical tool for large data set analysis which can produce a comprehensive graphical representation of results. After deciding upon the software tool, the next steps were data coding, data cleaning and describing (Stockemer, 2018). To make sure that the data were close to the original distribution and that the data set was not misinterpreted, outliers and data errors were investigated (Saunders *et al.*, 2019).

Outliers refer to observations that are significantly different from others (Hair *et al.*, 2019a). Subsequently, it is crucial to analyse outliers as they can potentially misrepresent the data. Hair *et al.* (2019a) distinguish between three types of outliers: error outliers, interesting outliers, and influential outliers. Error outliers refer to observations that differ from others due to errors in data collection, while interesting and influential outliers correspond to observations that are unique and can potentially either bring interesting insights or impact the analysis (Hair *et al.*, 2019a). Whilst there are no bad or good outliers, it is recommended to analyse each outlier case separately before deciding on eliminating or keeping unique observations (Hair *et al.*, 2019a).

Hair *et al.* (2019a) propose three methods to assess outliers in the data set: univariate, bivariate, and multivariate detections. Univariate identification involves investigating the data

distribution of each variable and consequently identifying unique cases that fall at the outer range (Hair *et al.*, 2019a, p. 88). Specifically, this method includes converting data values in the standardised scores. The standardised scores falling out of the +- 3 range would be considered unique observations and regarded as outliers. Hair *et al.* (2019a) caution that employing the univariate method for evaluating outliers might result in overestimating outliers and only distinctive observations should be considered as outliers. To ensure that the researcher recognises outliers correctly, it is advised to run other methods of identification.

Another way to acknowledge outliers is to run bivariate detection. The bivariate method includes the investigation of scatterplots. Yet, one of the biggest disadvantages of this method is that it could potentially include a large number of scatterplots (Hair *et al.*, 2019a). For instance, Hair *et al.* (2019a) point out that for 10 variables, the researcher will need to examine 45 scatterplots. Hence, as this study has 5 main variables and 1 moderating variable, employing bivariate detection of outliers seems to be impractical. Another way to cross-check outliers from univariate identification is to run a multivariate analysis. This approach involves calculating Mahalonobis D^2 which focuses on the multivariate examination of each case across variables (Hair *et al.*, 2019a). To further assess multivariate outliers, Hair *et al.* (2019a) suggest dividing Mahalonobis D^2 by a number of variables included in the survey. Therefore, if observations have a value higher than .001, it would be considered an outlier.

Finally, it is essential to examine any missing data, outliers, or straight-liners as it could potentially disturb statistical analysis or provide misleading information (Hair *et al.*, 2012). For data cleaning and assessment of normal distribution, a set of descriptive statistics techniques is employed (Saunders *et al.*, 2019). Specifically, mean, median, standard deviation as well as skewness and kurtosis are calculated and analysed for all items.

4.7.2 Descriptive statistics analysis

After data cleaning and preparation, the next stage in data analysis is to describe data using descriptive statistics. In line with Saunders *et al.,* (2019, p. 597), descriptive statistics assists the researcher in defining and comparing the variable's data values numerically. The mean helps to identify the variable average, whilst the median focuses on representing the variable middle value, and standard deviation describes the extent to which the data value differs from the mean (Saunders *et al.,* 2019, p. 598). To describe the current dataset, mean, median and standard deviation are calculated for each model's construct and its measures. Furthermore, descriptive statistics is used to outline sample distribution consisting of age, gender, and

participants' network provider. This is done to ensure that the dataset has a representative sample, and research's results can be generalised (Saunders *et al.,* 2019). Lastly, the researcher runs Harman's single-factor test to ensure that the study doesn't suffer from common method bias (Saunders *et al.,* 2019).

4.7.3 Normal distribution assessment

The main data analysis focuses on testing the hypothesis by employing a range of statistical techniques (Saunders *et al.,* 2019). It is crucial to examine whenever data is normally distributed to decide on the utilisation of parametric or non-parametric statistical tests (Saunders *et al.,* 2019). One of the main assumptions of the parametric statistical analysis is that data from the sample is normally distributed (Saunders *et al.,* 2019, p. 603). To test for normal distribution, the researcher can use different statistical practices (Saunders *et al.,* 2019). One way to evaluate normality is to assess the kurtoses and skewness z-scores of each question in the survey (Hair *et al.*, 2019a). According to Hair *et al.* (2019a), if *z*-scores for either skewness or kurtosis fall out of the -+1.96 range, that would indicate a non-normal distribution. Employing this method of evaluating the normality helps the researcher easily identify the degree to which the kurtosis and skewness of distribution differ from normal distribution (Hair *et al.*, 2019a).

Alternatively, the researcher has a choice of using Kolmogorov-Smirnov or Shapiro-Wilk test (Saunders *et al.,* 2019). Both tests automatically calculate the level of significance for the variation in the sample from a normal distribution (Hair *et al.*, 2019a, p. 96). Hence, if significance, or *p*-value (probability of data being different from a normal distribution) would be .05 or lower, that would mean that the data is not normally distributed (Saunders *et al.,* 2019). Typically, the Kolmogorov-Smirnov test is used for a sample larger than 50 participants and therefore adopted for this study (Saunders *et al.,* 2019). That being said, Hair *et al.* (2019a) caution to use just the Kolmogorov-Smirnov test to assess the normality as results are sensitive depending on the sample size. Therefore, in this study, the researcher employs both statistical methods to assess normality. Firstly, the Kolmogorov-Smirnov test is performed via SPSS statistics to further investigate normality. Secondly, the *z*-score values for skewness and kurtosis are calculated and examined.

4.7.4 Groups formation through assessment of validity and reliability of regulatory focus scale

This research focuses on examining how customers' perception of control over website interactions impacts customers' emotions and trust and as a result intended behaviour towards a company as well as investigating the role of regulatory focus. To assess differences in regulatory focus between customers, the regulatory focus measurement scale needs to be split into groups – promotion and prevention. Previous literature has identified different ways of assessing internal regulatory focus and this research follows Lockwood *et al.* (2002) regulatory focus scale. Accordingly, participants were presented with a set of nine questions assessing their promotion or prevention regulatory orientation (Higgins, 1998; Lockwood *et al.*, 2002) (See measurement scale in Chapter 4, Section 4.5). Before splitting the sample into promotion and prevention groups, it is crucial to assess scale validity and reliability. To do so, the researcher employed a factor analysis technique together with Cronbach's alpha coefficient to determine the potential scale's validity and reliability (Saunders *et al.*, 2019). Cronbach's alpha helps the researcher to evaluate the internal consistency reliability of proposed scales (Sarstedt and Mooi, 2014). Specifically, this statistical test is used to measure the consistency of sub-items which are going to be used to create a scale construct (Saunders *et al.*, 2019). Generally, the coefficient varies between 0 and 1, where the closer the index is to 1, the higher the degree of reliability is predicted (Sarstedt and Mooi, 2014). As a rule, the coefficient of .70 and above shows that questions used to establish the scale are consistent in the measurement (Saunders *et al.*, 2019).

In addition to Cronbach's alpha test, the researcher performs factor analysis to assess the validity of scales. Factor analysis helps the researcher in examining how separate sub-items belong to a specific factor or scale (Sarstedt and Mooi, 2014). Similarly to Cronbach's alpha test, factor loadings should be at least .50 to be considered appropriate for a measurement scale (Sarstedt and Mooi, 2014). Utilising those assists the researcher in ensuring that measurements used in the research are valid and reliable to answer research questions.

After the validity and reliability of the regulatory focus scale have been established, the researcher moves on splitting the sample into promotion and prevention groups. In line with existing literature, the sample is split into groups by averaging distinct promotion and prevention scores. Specifically, the difference between scores on promotion and prevention is calculated and then participants are divided into chronic promotion or prevention orientations

based on a median split from previously calculated difference value (Lee and Koo, 2012; Werth and Foerster, 2007; Ku *et al.*, 2012; Louro *et al.*, 2005).

Once data were cleaned, prepared, described and tested using descriptive statistics in SPSS software, the next step in data analysis is the assessment of the research model employing multivariate analysis.

4.8 Multivariate analysis: structural equation modelling – partial least squares (PLS-SEM)

The following section describes the main data analysis method which is structural equation modelling – partial least squares (PLS-SEM). An introduction to PLS-SEM is presented, followed by a discussion of the limitations of PLS-SEM. Next, analysis to assess the measurement model is reviewed. After this, an analysis of the structural model is discussed. Lastly, mediation and moderation analysis as a PLS-SEM technique is considered. A detailed overview of chosen PLS-SEM analysis methods is presented in Figure 13 below.

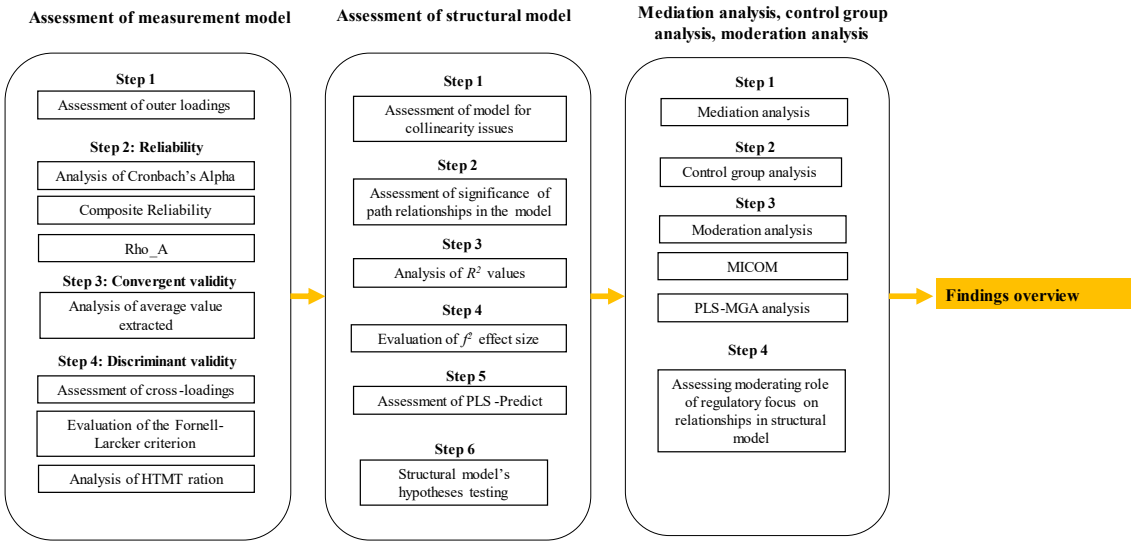


Figure 13. PLS-SEM data analysis steps overview.

4.8.1 PLS-SEM overview

The following research follows multivariate analysis as the main statistical analysis approach. Multivariate analysis refers to the application of statistical methods which simultaneously analyse multiple variables in the model (Hair *et al.,* 2021, p. 1). Structural equation modelling (SEM), particularly partial least squares (PLS) is chosen as a suitable multivariate analysis for

this study. Compared to other SEM technique, which is covariance-based structural equation modelling (CB-SEM), PLS-SEM benefits from its "causal-predictive" approach which aims to explain variance in the model's dependent variables (Hair *et al.,* 2021, p. 4). PLS-SEM focuses on investigating linear relationships between independent and dependent variables in the existing model as between variables and the measures (Hair *et al.*, 2021). In the PLS-SEM, independent variables refer to exogenous latent variables and are typically on the left side of the model, whereas dependent variables refer to endogenous latent variables and are typically on the right side of the model (Hair *et al.*, 2021). Traditionally, independent variables (left side of the model) act as predictors of the dependent variables (right side of the model) indicating that a change in the independent variable will cause a change in the dependent variable (Hair *et al.*, 2021). Those relationships can be linear or can be mediated or moderated which is discussed later in this chapter.

PLS-SEM requires path modelling which consists of two components known as the measurement model and the structural model (Hair *et al.*, 2021). The measurement model, or outer model, explains relationships between the model's variables (constructs) and their measures, whereas the structural model, or inner model, describes hypothesised relationships between constructs (Hair *et al.*, 2021). For this study, five constructs form the inner model customers' perception of control over website interactions, customers' positive emotions and negative emotions, trust and intended behaviours towards a company.

PLS-SEM has multiple advantages such as it can handle non-parametric analysis for non-normal distribution data with a high level of statistical power (Hair *et al.*, 2021). Utilising PLS-SEM as a statistical method of data analysis helps the researcher avoid issues with non-normal distribution by using bootstrapping for significance testing (Hair *et al.*, 2021). Collected data detects the number of occurrences of non-normal distribution properties and therefore requires running non-parametric statistical analysis (Sarstedt and Mooi, 2014).

Furthermore, as the current research adopts a complex model with more than both mediation and moderation effects, adopting PLS-SEM as a statistical technique is considered to be appropriate for this research. In support of this, Hair *et al.* (2021) confirm that PLS-SEM works most efficiently with complex models with non-normal distribution. Hereafter, Hair *et al.* (2021) draw on a comparison with the CB-SEM multivariate technique which requires normality distribution, whilst PLS-SEM can easily process both measurement and structural models employing non-parametric tests. Moreover, by utilising the PLS-SEM technique the

researcher benefits from high efficiency in parameter estimation meaning PLS-SEM is more likely to identify specific significant relationships being present in the population (Sarstedt and Mooi, 2014). Taken together, PLS-SEM is deemed to be an appropriate multivariate data analysis for this research.

Before employing PLS-SEM analysis, data should meet the following requirements:

A) Minimum sample size requirement

According to Hair *et al.* (2017, p. 42), one of the following conditions should be met (Barclay *et al.*, 1995):

The sample size should be

- 10 times the largest number of formative indicators used to measure a single construct,
- 10 times the largest number of structural paths directed at a particular construct in the structural model.

As this study only has reflective indicators, the sample size should meet the criteria of the second condition. There are six structural paths directing to the dependent variable which is intended Behaviour meaning that the minimum required sample size should be at least 60 participants. After careful data cleaning and analysis, the total sample of this study equals 280 participants meeting PLS-SEM sample size requirements.

B) Missing values

As per other statistical methods, PLS-SME requires an assessment and readjustment of missing values, if any (Hair *et al.*, 2021). Since this study has employed specific techniques during the data collection process (Chapter 4, Section 4.5.6) to avoid missing data, this requirement is met.

C) Non-normal distribution

Another requirement of PLS-SME is non-normal distribution as it runs non-parametric tests and is employed mostly for non-normal distribution (Hair *et al.*, 2021). Hereafter, as previously mentioned, the current data has occurrences of non-normal distribution (Chapter 5) and therefore, PLS-SEM has been chosen as the data analysis method for this study.

D) Scales of measurements

PLS-SEM requires variables to be measured on metric scales for measurement model indicators (Hair *et al.*, 2021, p. 28). This condition is also met as all items in the model are measured on a 5-point Likert scale.

4.8.2 Limitations of PLS-SEM

Whilst PLS-SEM is considered to be the most appropriate data analysis method for this study, it is essential to evaluate its limitations. One of the biggest limitations outlined in the literature is referred to as PLS-SEM bias (Hair *et al.*, 2021). PLS-SEM bias corresponds to the argument that measurement model estimates are higher than prespecified values, whereas structural model estimates are lower than prespecified values (Goodhue *et al.*, 2012) (Hair *et al.*, 2021, p. 28). However, Hair *et al.* (2021, p. 23) further explain that since PLS-SEM is a composite-based approach, which assumes total variance to estimate parameters, biases are expected.

Furthermore, a lot of methodological research has been done since the first introduction of PLS-SEM which has extended the analysis by employing a range of advanced modelling and assessments (Hair *et al.*, 2021). Thus, Hair *et al.,* (2021) confirm that regardless of its limitations, PLS-SEM is an appropriate technique to examine linear relationships between model's construct and draw conclusions. Here, Hair *et al.,* (2021) outline that to ensure that findings are reliable and valid, not only data requirements should be met but also the measurement model's requirements (Chapter 4, Section 4.8.3)

To conclude, PLS-SEM is employed as the main statistical method for this study. PLS-SEM is considered to be an appropriate multivariate analysis as this study aims to understand complex relationships between customers' regulatory focus orientation, customers' perception of control during website interactions, customers' emotions, trust, and intended behaviour towards a company. The researcher uses SmartPLS 4 as a software tool to run PLS-SEM analysis. The first step in PLS-SEM analysis is the assessment of the measurement model which is discussed in the next section.

4.8.3 Assessment of measurement model

As it has been previously mentioned, PLS-SEM consists of path modelling by assessing measurement models and structural models (Hair *et al.*, 2021). The measurement model describes relationships between constructs and their corresponding indicator variables (Hair *et al.*, 2021). The measurement model can be either reflective, which is the most used in social sciences and represents the effects of an underlying construct, or formative, which assumes that indicators form the construct using linear combinations (Hair *et al.,* 2021, p. 52). The latter means that each indicator captures a specific aspect of the formative model's construct

postulating that removing one item's indicator will alter the nature of the contrast (Hair *et al.,* 2021, p. 52). In contrast, in the reflective measurement model, reflective measures recognise that all indicators are caused by the same construct and are highly correlated with each other (Hair *et al.*, 2021).

Hair *et al.,* (2021) postulate that there is no definite answer on when to choose a reflective or formative measurement model as it would depend upon the study's objectives and conceptualisation. Following theory building and this study's aims, this research follows a reflective measurement model as all indicators are highly correlated and interchangeable in addition to a model's construct explaining the indicators (Hair *et al.*, 2021).

Therefore, since all measures in the model are reflective, the researcher follows the approach suggested by Hair *et al.* (2021) which focuses on the analysis of the reflective measurement model's validity and reliability. Specifically, Outer Loadings, Cronbach's Alpha, Composite Reliability, Average Variance Extracted (AVE), and Discriminant Validity are investigated as analyses of the measurement model.

4.8.3.1 Outer loadings

Outer loadings represent estimated relationships in the reflective measurement model (Hair *et al.*, 2021). Particularly, higher outer loadings of the construct demonstrate that the associated indicators are related, which is portrayed by the construct (Hair *et al.*, 2021). It is crucial to evaluate outer loading as higher outer loadings indicate that reflective indicators form a reliable construct. Theoretically, the outer loadings should be statistically significant (Hair *et al.*, 2021). Since statistical significance still can be weak, a common rule of thumb is that the outer loadings should be .708 or higher (Hair *et al.,* 2021, p. 117). The reason behind this rule is that a variable should explain at least 50% of indicator variance which equals .708, the square foot of .05 (Hair *et al.,* 2021, p. 117). However, if outer loading is less than .708, Hair *et al.,* (2021) suggest that rather than eliminating coefficients that are below the threshold, it is essential to conduct further investigation on whether removing those indicators will improve composite reliability (CR) or average variance extracted (AVE). Hence, the next step in the analysis is to assess the reliability of the model (Figure 14).

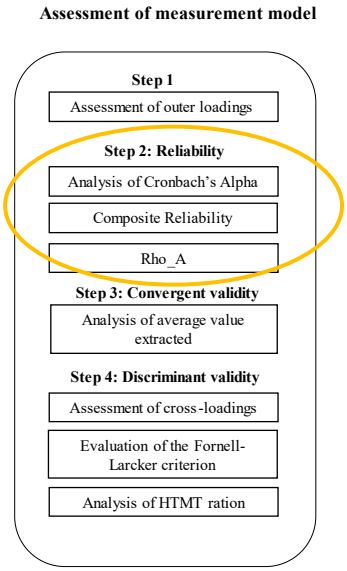


Figure 14. Analysis stage – reliability.

4.8.3.2 Evaluation of reliability

The first measure to assess constructs' reliability is Cronbach's Alpha, which focuses on providing an estimation of the reliability based on intercorrelations of the indicators (Bernard, 2013; Davies and Hughes, 2014). According to the literature, Cronbach's alpha is accepted at the level of .70 or above (Hair *et al.*, 2021). However, in recent research, several limitations of Cronbach's alpha coefficient have been identified. Firstly, Cronbach's alpha assumes that all indicators have equal outer loadings (Hair *et al.*, 2021). Secondly, Cronbach's alpha is sensitive to the number of indicators resulting in an underestimation of the internal consistency reliability (Hair *et al.*, 2012). Thus, Hair *et al.* (2021) propose using composite reliability as a measure of constructs' reliability as it takes into account the different outer loadings of construct indicators.

Typically, composite reliability ranges between 1 and 0, with higher values indicating higher levels of reliability. Hair *et al.* (2021) acknowledge that composite reliability values between .70 and .90 are satisfactory for social science research. Furthermore, Hair *et al.* (2021) point out that values above .90 are not desirable as it would indicate that all indicators are measuring the same phenomenon and going to be invalid measures.

Alternatively, Dijkstra and Henseler (2015) argue that both Cronbach's alpha and composite reliability can provide false results, especially in research with non-normal distribution.

Dijkstra and Henseler (2015) dispute that whereas Cronbach's alpha under-estimate reliability, composite reliability over-estimate actual reliability of constructs. Through mathematical equations, Dijkstra and Henseler (2015) recognise using another dimension of reliability named rho_A which unlike Cronbach's alpha and composite reliability measures reliability based on outer weights. Supporting this, Hair *et al.* (2021) postulate that rho_A lies somewhere between Cronbach's alpha and composite reliability and can be used as an alternative measure of reliability. Similarly to Cronbach's alpha and composite reliability, the rho_A value of .70 and above is considered to be satisfactory (Hair *et al.*, 2021). Evaluation of all three coefficients of Cronbach's Alpha, composite reliability, and rho_A assists the researcher in examining the model's constructs' reliability which is an essential requirement for PLS-SEM. Thus, this research employs all three metrics as the measurement model's reliability assessment.

4.8.3.3 Assessment of validity

After the measurement model is confirmed to be reliable, the next step in data analysis is to evaluate the validity of the models' constructs (Figure 15).

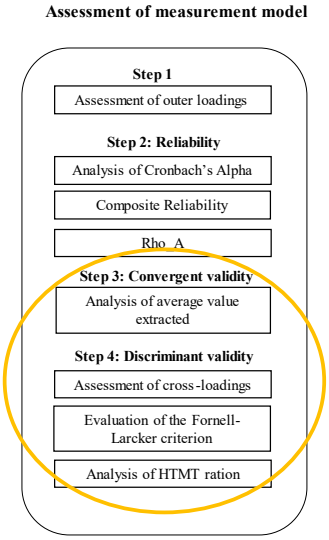


Figure 15. Analysis stage – validity.

Analysis of the validity of the measurement model consists of convergent validity and discriminant validity (Hair *et al.*, 2021). Convergent validity is *"the extent to which a measure correlates positively with alternative measures of the same construct"* (Hair *et al.,* 2021, p. 119). An appropriate method to evaluate convergent validity is the Average Variance Extracted

(AVE) (Hair *et al.,* 2021). According to Hair *et al.,* (2019), AVE should be .50 or above to have a satisfactory level of convergent validity. AVE value of .50 or higher indicates that the construct determines more than half of the variance of indicators (Hair *et al.,* 2021, p. 120).

On another hand, discriminant validity is "*the extent to which a construct is truly distinct from other constructs"*. Discriminant validity helps the researcher to identify that a construct is unique and accurately captures phenomena in the model (Hair *et al.,* 2021, p. 120). The Fornell-Larcker criterion, cross-loadings, and the heterotrait-monotrait (HTMT) are used to evaluate discriminant validity (Hair *et al.,* 2019).

The analysis of cross-loadings is the first technique to evaluate the measurement model's discriminant validity (Hair *et al.*, 2021). Here, the indicator's outer loadings of the construct should be greater than any of its cross-loadings on other constructs in the model (Hair *et al.,* 2021, p. 121). Although analysis of cross-loadings is a traditional statistical technique for assessing validity, previous research has shown that it cannot detect severe violations of discriminant validity and therefore, cannot be used on its own (Henseler *et al.*, 2015).

The next step is to assess the Fornell-Larcker criterion (Hair *et al.*, 2021). The Fornell-Larcker criterion aims to ensure that a construct shares more variance with its indicators rather than with any other construct in the model (Fornell and Larcker, 1981). The Fornell-Larcker is adopted as a validity measure to ensure that the model's construct is unique and its indicators do not explain any other constructs in the model (Hair *et al.*, 2021).

Whilst Fornell-Larcker criterion and cross-loadings analysis are found to be robust statistical techniques to evaluate the discriminant validity of measurement model, recent research has found critical limitations with applying cross-loadings or the Fornell-Larcker criterion as methods to assess discriminant validity (Hair *et al.,* 2021). Specifically, Henseler *et al.* (2015) argue that both cross-loadings and the Fornell-Larcker criterion fail to evaluate discriminant validity if the two constructs are perfectly correlated or if indicator loadings differ only slightly (Hair *et al.,* 2021). As a solution, Henseler *et al.* (2015) propose examining the heterotrait-monotrait ratio (HTMT) of the correlations. HTMT ratio is used in this research as a statistical discriminant validity test focusing on establishing the validity of the model's construct.

Specifically, HTMT is the estimation of what the true correlation between two constructs would be if they were perfectly reliable (Hair *et al.,* 2021, p. 122). Accordingly, an HTMT value close to 1 would indicate a lack of discriminant validity. Henseler *et al.* (2015) establish that HTMT threshold value of .85 or less to confirm discriminant validity. Yet, Henseler *et al.* (2015) also

postulate that if constructs are conceptually very similar, the threshold of .90 can be accepted. As this study measures customers' emotions, trust and intended behaviour which are observed to be highly correlated, the research adopts a value of .90. Hereafter, an HTMT value below .90 would indicate discriminant validity (Hair *et al.,* 2021).

To examine whenever the HTMT statistic is statistically significant from the threshold, Hair *et al.* (2021) advise performing a non-parametric test which is bootstrapping. Bootstrapping randomly draws subsamples from the original dataset, where each subsample is used to estimate the model, followed by the estimated HTMT statistic to derive standard errors for the estimates (Hair *et al.,* 2021, p. 123). By doing so, the researcher can extract the bootstrap confidence interval, which is the range into which the HTMT value will fall, assuming a 95% level of confidence with a 5% probability error (Hair *et al.,* 2021, p. 123). In other words, to confirm the validity, the HTMT value in confidence intervals should be below the threshold of .90 (Hair *et al.,* 2021).

By adopting all three measures of discriminant validity, the researcher confirms that the reflective measurement model is valid and can be used for further statistical analysis. To sum up, Table 16 outlines validity and reliability measures to be used to ensure that the measurement model is valid and reliable.

Convergent Validity		**Discriminant Validity**		**Reliability**		
Outer loadings	**AVE**	**Cross-loadings & the Fornell-Larcker criterion**	**HTMT ratio**	**Cronbach's Alpha**	**Composite Reliability**	**Rho_A**
> .69	> .50	The square root of the AVE value should be greater than cross-loadings with other constructs	HTMT confidence interval is below the threshold of .90	.70-.90		

Table 16. Overview of validity and reliability measures.

Once the examination of the measurement model is discussed, the next section focuses on the assessment of the structural model.

4.8.4 Evaluation of structural model

The structural model describes hypothesised relationships between constructs in the model (Hair *et al.*, 2021). Particularly, the structural model aims to examine linear relationships between the model's constructs and investigate the model's predictive power (Hair *et al.*, 2021). Assessment of the structural model is divided into six main steps:

- Assessment of collinearity
- Assessment of the significance of the path coefficients

- Evaluation of R^2 values
- Evaluation of f^2 effect size
- Assessment of PLSPredict

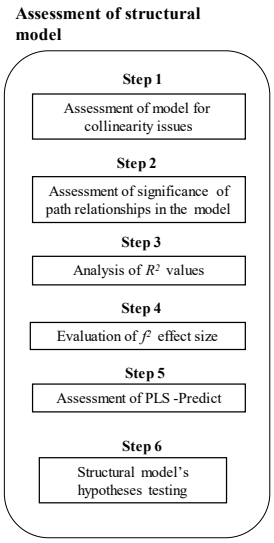


Figure 16. Analysis stage – assessment of structural model.

4.8.4.1 Assessment of collinearity

The first step in examining the structural model is to investigate issues of collinearity. Hair *et al.* (2021) explain that similarly to a regular multiple regression, the path coefficients might be biased if estimates include critical levels of collinearity amongst constructs. To do so, Hair *et al.* (2021) advise evaluating collinearity statistics value (VIF) which should be higher than .20 but below the threshold 5.

4.8.4.2 Assessment of the significance of the path coefficients

After issues of collinearity have been examined, the next step in the structural model analysis is to investigate the model's path coefficients. Path coefficients represent hypothesised relationships amongst constructs in the model (Hair *et al.,* 2021). The path coefficients range between -1 and +1, with estimated path coefficients closer to +1 describing stronger positive relationships (Hair *et al.,* 2021). Alongside the assessment of path coefficients, Hair *et al.,* (2021) suggest evaluating *t*-value and *p*-value to test for significance. Here, Hair *et al.,* (2021) posit that to investigate whenever path coefficients are significant, a bias-corrected bootstrapping technique is needed. As has been previously mentioned, bootstrapping helps the

researcher to test for statistical significance as a way of non-parametric test (Hair *et al.,* 2021). As part of the bootstrapping procedure, the bootstrap standard error produces *t*-values and *p*-values for all path coefficients (Hair *et al.,* 2021). As a rule, the greater the *t*-statistics with a *p*-value equalling .05 or less, the more likely there will be a statistically significant difference suggesting that the results did not occur by chance (Saunders *et al.*, 2019).

To identify whether there are statistically significant linear relationships between constructs at a certain error probability, the *t*-value should be larger than the critical value (Hair *et al.,* 2021). Traditionally, in consumer research, researchers use the *t*-critical value of 1.96 at a significant level of 5%. Alternatively, most researchers use the *p*-value to assess the significance levels of hypothesised relationships (Hair *et al.,* 2019). Equally to *t*-value analysis, in consumer studies, researchers assume a significance level of 5% meaning that the *p*-value value must be smaller than .05 to determine if the relationships are significant (Hair *et al.,* 2019).

To conclude, it is important to evaluate the model's path coefficients and its significance as it allows the researcher to critically examine hypothesised relationships in the model. Specifically, in this study path coefficients between customers' perception of control over website interactions, customers' positive, and negative emotions, trust as well as intended behaviour are investigated (Figure 17). This in turn helps the researcher to establish the influence of customers' perception of control over website interactions and their regulatory focus orientations on customers' customers' emotions and as a result trust and intended behaviour towards a company.

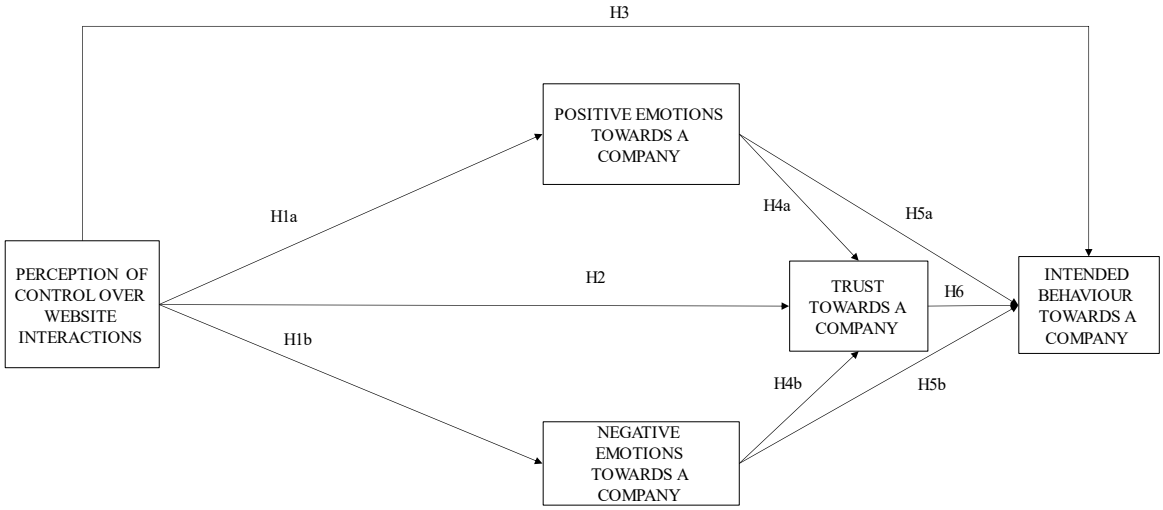


Figure 17. Structural model.

After the evaluation of the structural model's path coefficients, the researcher moves on assessment of the coefficient of determination, R^2 (Figure 18).

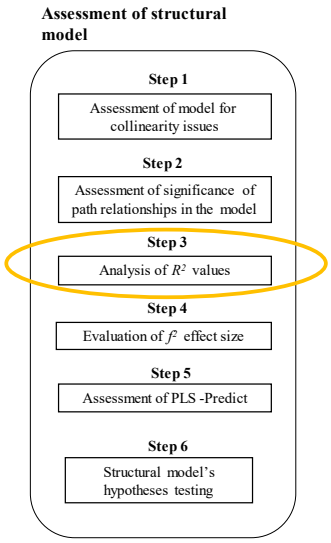


Figure 18. Analysis stage – assessment of structural model.

4.8.4.3 Assessment of R^2 values

The next step is to assess the coefficient of determination (R^2 value). R^2 is used to evaluate the model's explanatory predictive power and is calculated as the squared correlation between a specific construct's actual and predicted values (Hair *et al.,* 2021, p. 194). The R^2 value represents the amount of variance in the dependent variable explained by all the independent variables linked to it (Hair *et al.,* 2021, p. 194). Analysis of the R^2 value is an essential step in PLS-SEM as it helps the researcher investigate the model's in-sample predictive power. Traditionally, R^2 ranges from 0 to 1, with a closer value to 1 indicating higher levels of predictive explanatory power (Hair *et al.,* 2021). Literature struggles to identify an acceptable level of R^2 value as it would depend on the field and model complexity (Hair *et al.,* 2019). Hair *et al.,* (2019) point out that in consumer behaviour research, the R^2 value of .20 is acceptable, whereas, in customer satisfaction studies, researchers would expect the R^2 value to be as high as .75. Hair *et al.,* (2017) recommend that in the marketing discipline, R^2 value of .75, .50, or .25 would be described as significant, moderate, or weak. Instead, Chin (1998) proposes to use the R^2 value threshold of .19, .33, and .67 as weak, moderate, and significant.

However, previous research argues that the R^2 value is not enough to assess the model's predictive power as due to its calculations, higher number paths from independent variables predicting dependent variables will result in a higher R^2 value. Hence, Hair *et al.,* (2021) suggest reporting R^2 adjusted value as it can help to avoid bias towards the structural model. In this study, both R^2 and R^2 adjusted are reported to understand the explanatory predictive power of independent variables on dependent variables in the structural model. R^2 and R^2 adjusted are calculated for trust, attitude, positive and negative emotions, and intended behaviour.

4.8.4.4 Assessment of f^2 effect size

In addition to R^2 and R^2 adjusted, the researcher can also analyse the f^2 effect size (Hair et al., 2021). f^2 effect size supports the findings from R^2 by quantifying the strength of the structural model relationships (Hair et al., 2021, p. 195). Particularly, f^2 focuses on examining the change in R^2 value when a construct is removed from the model. The f^2 effect size potentially should show a decline in R^2 value after removing the independent variable. Similarly to R^2 and R^2 adjusted analysis, Hair *et al.* (2021, p. 195) suggest guidelines for assessing f^2 effect size. Values of f^2 of .02, .15, and .35 demonstrate small, medium, and large effects of dependent variables, whilst an f^2 value of less than .02 would indicate that there is no effect (Hair et al., 2021). The f^2 effect size is calculated for trust, positive and negative emotions, and intended behaviour.

After explanatory predictive power and the effect size of the structural model, the next step in PLS-SEM analysis is to investigate its predictive relevance and respective effect size.

4.8.4.5 Assessment of PLSPredict

This study follows objectivist ontology, and positive epistemology coupled with quantitative research methods meaning that the PLS path model should produce generalisable findings (Saunders *et al.*, 2019). In line with Hair *et al.,* (2021), generalisable findings could only be produced if results can be applied outside of the current sample dataset. To do so, the researcher assesses the model's predictive power. Nowadays, the model's predictive power is typically evaluated through the measures of PLSPredict which are going to be outlined later in this chapter (Hair *et al.,* 2021). Yet, traditionally, researchers can apply Stone-Geisser's, or Q^2 statistic as an acceptable measure of out-of-sample predictive power (Hair *et al.,* 2021). However, one of the biggest limitations of the Q^2 value and the reason behind not using it as a primary statistic of predictive relevance is that this measure blends explanatory and predictive power assessments (Shmueli *et al.*, 2019).

Addressing the limitations of the Q^2 value, Shmueli *et al.* (2019) suggest a new approach to examine out-of-sample predictive power which is referred to PLSPredict procedure. According to Hair *et al.,* (2021, p. 196), PLSPredict focuses on the concept of separating the overall dataset into training and holdout samples which are later used to estimate the out-of-sample predictive power.

In this study to assess the out-of-sample model's predictive power, the researcher adopts analysis of $Q^2_{predict}$ value, and the mean squared error (RMSE). To do so, Shmueli *et al.* (2019) propose employing a linear regression model (LM) as a benchmark to generate predictions. In other words, the $Q^2_{predict}$ value and the RMSE results should be compared between the LM benchmark and PLS-SEM predictions (Hair *et al.,* 2021). Hair *et al.,* (2021) advise starting the comparison with $Q^2_{predict}$ value. Hereafter, the $Q^2_{predict}$ value of PLS-SEM predictions outperforms the LM benchmark. The researcher then calculates the differences by deducting the $Q^2_{predict}$ value of PLS-SEM predictions from the $Q^2_{predict}$ value of the LM benchmark. As a rule of thumb, $Q^2_{predict}$ should be more than 0 allowing the researcher to progress to the next stage of PLSPredict analysis (Hair *et al.,* 2021).

After the $Q^2_{predict}$ value has been compared, the next step is to compare RMSE values of PLS-SEM predictions versus the LM benchmark (Hair *et al.,* 2021). Calculations of comparison of RMSE values of PLS-SEM predictions versus LM benchmark follow the same logic as per $Q^2_{predict}$ value. Furthermore, the comparison of RMSE value to LM should follow the following rules (Hair *et al.,* 2019b, p. 13):

- If PLS-SEM for RMSE for all constructs is higher than LM that would indicate that the model lacks predictive power
- If PLS-SEM for RMSE of majority dependent constructs is larger than LM that would indicate a low predictive power
- If PLS-SEM for RMSE of minority dependent constructs is larger than LM that would indicate a medium predictive power
- If PLS-SEM for RMSE of all dependent constructs is smaller than LM that would indicate a high predictive power

Hair *et al.,* (2021) points out that if PLSPredict recognises one or more indicators with a low predictive power, the researcher should carefully explore potential explanations. Here, it is suggested to revisit the data cleaning step of data analysis to reconsider any potential outliers

which might skew the results (Hair *et al.,* 2021). Alternatively, Hair *et al.,* (2021) advise further examination of low predictive power indicators by assessing their outer loadings together with validity and reliability measures. This is because Hair *et al.,* (2021) recommend carefully removing indicators by re-evaluating the construct's reliability and validity. If the indicator has low outer loading and low predictive power, then the researcher might consider removing it, and only if the study's primary objective is prediction (Hair *et al.,* 2021).

To sum up, PLSPredict is adopted as a measure of the model's out-of-sample predictive power. This assists the researcher in further evaluating the structural model and examining the effects of independent variables on the dependent variables. After the structural model has been examined, the researcher moves on to the next stage of analysis which is mediation (Figure 19).

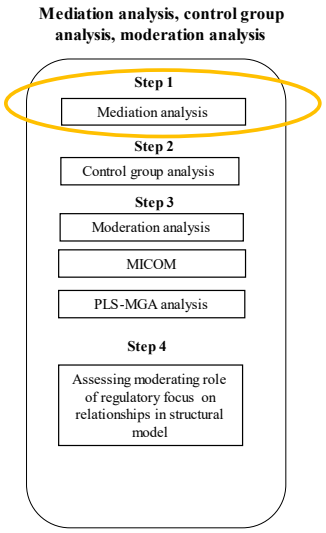


Figure 19. Analysis stage – mediation.

4.8.5 Mediation analysis

Mediation analysis is an important step in data analysis to further understand the influence of control perceptions on intended behaviours towards a firm. According to Hair *et al.* (2021), mediation happens when a third variable intervenes between two related variables. In other words, meditation occurs when a change in the independent variable causes a change in the mediator variable which in turn changes the dependent variable (Hair *et al.*, 2021). Hence, mediation analysis focuses on further explaining the nature of relationships between independent and dependent variables (Hair *et al.*, 2021). Mediation is a crucial part of data

analysis as it assists the researcher in examining whenever there is an underlying phenomenon that might affect direct relationships between independent and dependent variables (Hair *et al.*, 2021).

Before exploring mediation analysis further, it is important to understand the differences between direct effects and indirect effects (Figure 20). In line with Hair *et al.* (2021), direct effects are relationships between two variables with a single arrow, whereas indirect effects are relationships which involve at least one more intervening construct between independent and dependent constructs. As presented in Figure 20 below, *p3* describes the direct effect of the independent variable on the dependent variable, whilst *p1*p2* shows the mediating effect of the mediator variable on the relationships between independent and dependent variables (Hair *et al.,* 2021, p. 229).

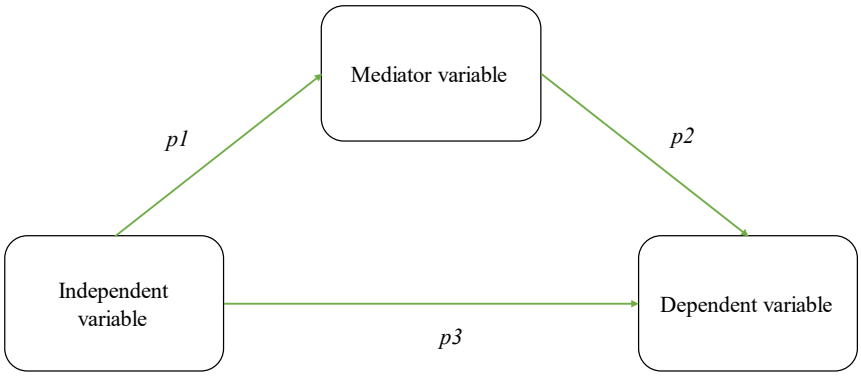


Figure 20. Simple Mediation Model (Hair et al., 2021).

Building upon Zhao *et al.* (2010), Hair *et al.* (2021) recognise three different types of mediation:

- Complementary mediation, where the indirect effect and the direct effect both are significant and point in the same direction
- Competitive mediation, where the indirect effect and the direct effect both are significant and point in the different direction
- Indirect-only mediation, where the indirect effect is significant but not the direct effect

Furthermore, Hair *et al.* (2021) recognise that non-mediation can also occur and they categorise it into two categories: direct-only nonmediation and no-effect nonmediation. Here, direct-only nonmediation relates to the direct effect being significant, but not the indirect effect, whilst no-effect nonmediation relates to neither direct nor indirect effects being significant (Hair *et al.*, 2021).

To examine the mediation effect, Hair *et al.,* (2021, p. 234) propose to follow the following steps:

1. To assess the significance of indirect effect (*p1*p2*, Figure 20). If the indirect effect is significant, the researcher can conclude that there is a mediation effect of mediator between independent and dependent variables and needs to investigate it further.

    a. If the indirect effect is non-significant, the researcher needs to evaluate a direct effect (*p3*, Figure 20). The significance of direct effect would indicate that there is a possibility of another mediator (direct-only nonmediation). If the direct effect is non-significant, Hair *et al.,* (2021, p. 234) advise revisiting the theoretical framework.

2. Once the significance of the indirect effect has been established, the next step is to analyse a direct effect (*p3*, Figure 20). If the direct effect is non-significant, that would demonstrate that the impact of the independent variable on the dependent variable could only be explained through a mediator construct (Hair *et al.,* 2021, p. 235).

3. Alternatively, if both indirect and direct effects are significant, the researcher can explore the type of mediation which could be:

    a. Complementary (partial mediation), where the indirect effect and the direct effect both are significant and point in the same direction. Complementary mediation supports the mediating hypotheses but might indicate that there is another potential mediator explaining relationships between independent and dependent variables.
    b. Competitive mediation (partial mediation), where the indirect effect and the direct effect both are significant and point in different directions. Whilst

competitive mediation supports hypothesised mediation, the mediating variable acts as a suppressor variable meaning that it decreases the effects of the independent variable and dependent variable. When this occurs, Hair *et al.* (2021) suggest carefully investigating theoretical explanations for this.

Concerning this study, the current model focuses on the evaluation of multiple mediations. Multiple mediation typically occurs when there is more than one variable acting as an intervening construct between independent and dependent variables (Hair *et al.*, 2021). Figure 21 demonstrates the identified mediating variables in the current model. Specifically, the researcher aims to identify the mediating role of customers' emotions and trust between customers' perception of control over website interactions and intended behaviour towards a company.

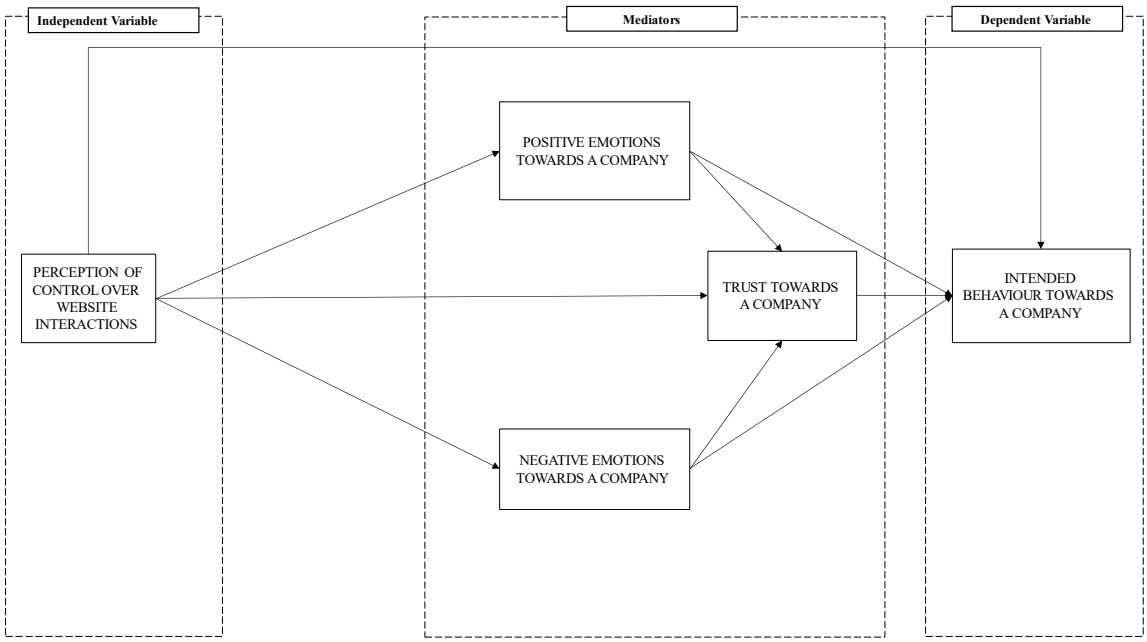


Figure 21. This study's mediation model.

To analyse multiple mediations, Hair *et al.* (2021) advise against running separate mediation analyses as it would not provide a comprehensive nature of multiple mediators due to correlations and biases of estimations. Hereafter, it is suggested to investigate multiple mediators simultaneously. To do so, a similar method to evaluating single mediation which is assessing the indirect and direct effects of mediating constructs is recommended (Hair *et al.*, 2021). Specifically, the researcher investigates the significance of indirect effects first followed by analysis of direct effects in the model. The multiple-analysis mediation is run using

SmartPLS 4 with the assistance of the bootstrapping technique to test for significance (Hair *et al.*, 2021).

Multiple mediation analysis assists the researcher in further understanding the relationships between customers' perception of control over website interactions and intended behaviour through investigating the important role of customers' emotions and trust. After mediation analysis is performed, the next step is to assess the moderation effect in the model which is carried out with the help of multi-group analysis.

4.8.6 Moderation analysis – multi-group analysis

Moderation is a crucial step in this study which aims to investigate how customers' regulatory focus orientation influences relationships between customers' perception of control, customers' emotions and trust, and intended behaviour towards a company. Moderation analysis demonstrates a phenomenon where the relationships between two constructs are affected by a third construct, referred to as a moderator variable (Hair *et al.,* 2021, p. 243). Moderator variables typically can change not only the strength of the relationships but also the direction of the relationships between two constructs in the model (Hair *et al.,* 2021, p. 243) (Figure 22).

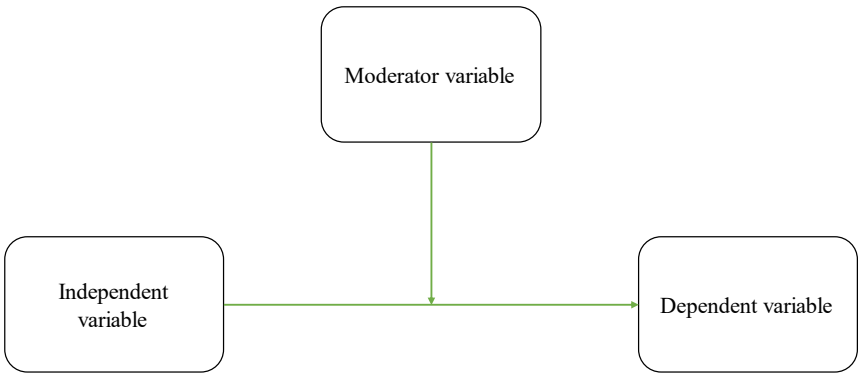


Figure 22. Simple Moderation Model (Hair et al., 2021).

The moderation effect of the moderator variable is hypothesised based on existing literature and theories (Hair *et al.,* 2021). Thus, depending on the research aim and objectives, moderation can be analysed differently. For instance, the researcher can examine the interaction

effect where a moderator variable is assumed to influence one specific relationship (Hair *et al.,* 2021, p. 245). In contrast, the researcher can investigate moderation effects by grouping moderator variables into two subsamples and analysing significant differences between the subsamples (Hair *et al.,* 2021, p. 245). The latter refers to multigroup analysis (Hair *et al.*, 2021). Therefore, as this research focuses on understanding how different types of regulatory focus orientation impact relationships between customers' perception of control over website interactions, customers' emotions, trust and as a result behavioural responses, multi-group comparison is adopted as a type of moderation analysis. The moderating effect of regulatory focus is presented in Figure 23 below.

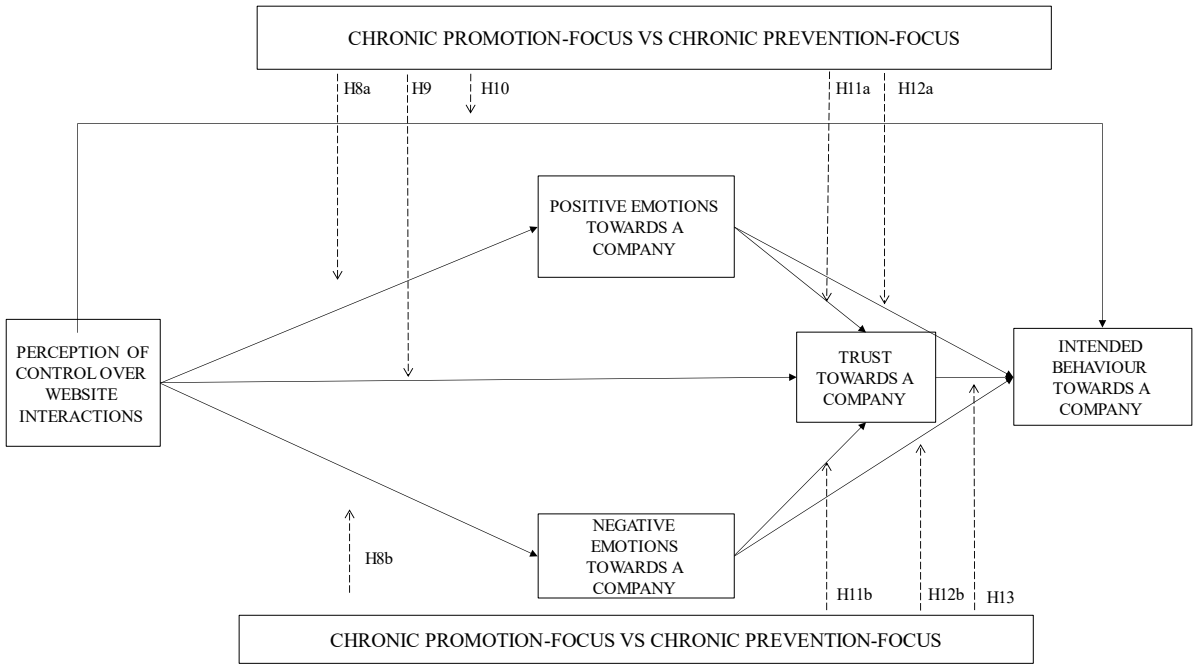


Figure 23. Moderation effect of regulatory focus on relationships in the main conceptual model.

The first step in multigroup analysis is to split the sample into two subgroups based on their regulatory focus orientation. The in-depth discussion on group formation is presented in (Chapter 4, Section 4.7.4). In short, the sample is split into two subgroups by averaging distinct promotion and prevention scores. The difference between scores on promotion and prevention is calculated and then participants are divided into chronic promotion or prevention orientations based on a median split from previously calculated difference value (Lee and Koo, 2012; Werth and Foerster, 2007; Ku *et al.*, 2012; Louro *et al.*, 2005).

The next step in multigroup comparison is to establish measurement invariance or measurement equivalence (Hair *et al.*, 2018). Acknowledging measurement invariance is an essential stage of multigroup analysis as it helps the researcher to ensure that the differences

between groups in model estimates are true and are not influenced by other factors (Hair *et al.*, 2018). More specifically, measurement invariance ensures that group differences do not originate from the distinctive content or meanings of the variables across groups (Hair *et al.,* 2018, p. 139). For this purpose, Henseler *et al.* (2016) have developed a procedure called measurement invariance of composite models (MICOM). Typically, MICOM consists of three stages involving establishing the following parameters (Hair *et al.*, 2018). All three steps are interdependent between each other (Hair *et al.*, 2018). That means that the researcher needs to establish configural invariance first, then compositional invariance, and only then establish equality of composite mean values and variances (Hair *et al.*, 2018). Particularly, Hair *et al.,* (2018, p.140) postulate that if configural invariance (step 1) and compositional invariances (step 2) are established, the researcher can confirm partial measurement invariance which in turn allows to perform multigroup analysis (Hair *et al.*, 2018). Thus, for this study, the researcher needs to ensure that at least steps 1 and step 2 of the MICOM procedure are satisfactory to move on to multi-group analysis.

Multi-group analysis aims to establish differences in path coefficients between groups (Hair *et al.*, 2018). Hence, as this study focuses on examining how different regulatory focus orientations influence the relationships between customers' perception of control over website interactions, customers' emotions, trust and intended behaviour towards a company, multigroup analysis is considered the main data analysis method to test for moderation.

Multigroup analysis is divided into parametric and non-parametric tests (Hair *et al.*, 2018). One of the main assumptions of parametric tests is the requirement of a normal distribution which is inconsistent with the adopted data analysis method of PLS-SEM (Hair *et al.*, 2018). As an alternative to parametric tests, Henseler *et al.* (2009) propose a nonparametric test which builds on bootstrapping results of each data group, (PLS-MGA) (Hair *et al.,* 2018, p. 150). Specifically, for every relationship in the PLS path model, PLS-MGA draws the comparison of the *p*-value of one group versus the *p*-value of another group and provides the outcome where $p^{(1)}>p^{(2)}$ is statistically significant (Hair *et al.*, 2018).

One of the challenges of PLS-MGA is that it only tests for one-sided hypotheses which are whenever $p^{(1)}$ is larger than $p^{(2)}$ (Hair *et al.*, 2018). Therefore, to overcome this limitation and to test hypotheses in another direction, the researcher needs to subtract the resulting *p*-value from 1 to obtain the *p*-value for the hypotheses (Hair *et al.,* 2018, p. 151). To conclude, the

differences in path coefficients between groups are statistically significant if the *p*-value is less than .005 or larger than .995 (Hair *et al.*, 2018).

To conclude, the researcher adopts PLS-MGA as a method to run a comparison between regulatory focus orientations. PLS-MGA provides the researcher with reliable statistical outputs which assists further in meeting this research goals and objectives.

4.9 Conclusion

The methodology chapter provided an empirical plan for undertaking this research. It has acknowledged research philosophy, research design, measurement scales establishment, main data collection method and data analysis methods. To achieve the research objectives and to test the conceptual model (Chapter 3), this study adopts objectivist ontology with positivist epistemology which employs a quantitative research approach for data collection. After data collection takes place using the Qualtrics platform, the researcher utilises PLS-SEM as a data analysis method.

Once the research methodology of this study is discussed, the next chapter focuses on collected data analysis.

5 Results analysis and hypotheses testing

Following on from the previous chapter on research methodology for this study, this chapter provides an overview of data analysis. Specifically, the chapter focuses on empirically testing the established conceptual model (Chapter 3) with a range of statistical methods. For ease of following, Figure 24 provides an overview of the flow of the data analysis chapter.

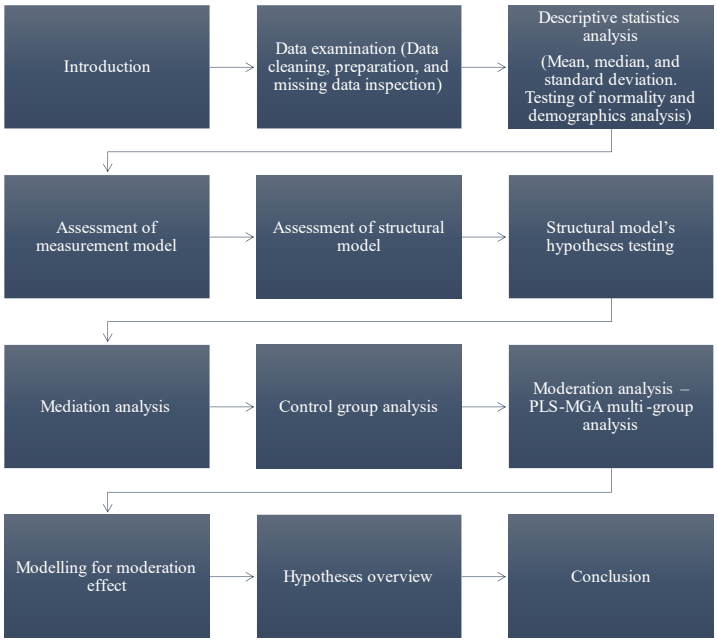


Figure 24. Data analysis chapter flow.

5.1 Introduction

This study aims to understand how customers' regulatory focus and customers' perception of control over website interactions shape customers' emotions and drive trust and intended behaviour towards a company. To meet this study's research objectives, statistical methods are employed and discussed in this chapter. Data analysis is divided into two main stages. Firstly, a set of simple statistics tests is employed to perform the initial investigation. Next, the researcher moves on to the more advanced statistical method of structural equation modelling.

Hereafter, analysis begins with data examination using data cleaning, preparation and data inspection. After data has been visually inspected, the researcher moves on to the assessment of straightliners and outliers. Next, descriptive statistics of the collected data set are presented. Finally, demographics analysis is outlined.

The second stage of the data analysis chapter focuses on performing structural equation modelling analysis. Firstly, the assessment of the measurement model takes place using measuring validity and reliability of the model's constructs. Secondly, the evaluation of the structural model is performed through analysis of path coefficients, analysis of the model's explanatory power (R^2) and its effect size (f^2) and analysis of the model's predictive power (PLSPredict).

After both measurement and structural models have been examined, the researcher moves on to mediation, moderation, and control group analysis. Next, the researcher tests the main hypotheses of this study. The chapter finishes by providing a summary of the hypotheses testing results.

5.2 Data examination

Data examination starts with data cleaning which includes data labelling, and visual inspection, followed by assessment of straight-liners and any missing data. Next, an analysis of outliers is presented. Investigation of the data set concludes by testing for normality and by describing dataset demographics.

5.2.1 Data cleaning, preparation, and missing data inspection

Data cleaning begins with downloading and merging data files from the Qualtrics platform into the SPSS software program. As described in Chapter 4, the main data collection took place over 3 weeks in May 2022 through conducting a self-completed questionnaire amongst UK populations. As previously described in the Methodology chapter (Chapter 4), the sample had two main conditions related to the context of this study. Firstly, Vodafone's only customers have been surveyed. Secondly, participants had to buy a new mobile phone contract in the last 12 months.

A total of 300 responses have been collected via Qualtrics. Qualtrics responses have been coded separately in the SPSS software. Once data has been uploaded into SPSS, the next step is to code and label variables. Accordingly, visual inspection takes place to look for any data errors in the data set such as misspellings, errors in values labelling or measures. Next, variables that need to be reverse-coded are recognised and amended. Additionally, the researcher used the advanced settings of the Qualtrics platform that involved screening and filters to ensure error-free data. Hereafter, the data set does not have any missing values or visible error values.

The next step in data cleaning is to investigate the time spent on the survey. As the researcher had run a pre-test, the average time spent on the questionnaire is expected to be around 10 minutes. With the help of Qualtrics, the researcher implemented speeding check measures that automatically terminate responses that spend less than half of the median completion time. Analysis of the basic descriptive statistics shows that the median time spent on the survey is 10 minutes 23 seconds. As the speeding check has been introduced in the survey, the minimum completion time is 5 minutes and 08 seconds. It is recommended to examine responses that have a completion time of less than a third of the median. Responses that took less than 7 minutes are investigated through the methods of visual inspection and descriptive statistics. Upon further investigation, no immediate errors or issues with responses are found and it is decided not to remove any responses based on quick time of completion.

Furthermore, analysis shows that 13 participants spent more than 1 hour on the survey. Consequently, those responses are analysed separately to examine data quality. Following a detailed investigation of the data quality of responses, it is decided to eliminate one response which took over 12 hours to respond to the survey as their answers might have been influenced by external factors. After analysis of time spent on the survey, the total count of observations from the Qualtrics platform is reduced to 299.

5.2.2 Straightliners

Next, an assessment of straight-liners is conducted. According to Sarstedt and Mooi (2014, p. 98), straight-lining occurs when respondents mark all the same values (all 1s, 2s, 3s, 4s, or 5s) throughout the survey. To investigate straight-liners range of statistical methods is employed (Sarstedt and Mooi, 2014). To begin with, the researcher adopts variance function to examine straight-lining responses throughout the survey, and per individual page in the survey. The variance function helps to assess the variation in responses per question. Hence, if the variance index is .00 that would indicate that there was no variation in respondents' answers. Based on variance function analysis, 13 straight-liners are identified. To ensure that correct observations have been found, the researcher performs a standard deviation statistical technique to cross-check the recognised straight-liners. Typically, if the standard deviation of an observation is close to .00 that would indicate that there was no variation in responses. Similarly to the variance function, standard deviation calculations are performed on all questions in the survey. Analysis of standard deviation confirms 13 straight-liners. Consequently, after careful investigation, 13 are removed resulting total count of responses being 286.

Once initial data cleaning and examination have been carried out, the next section focuses on the analysis of outliers.

5.2.3 Outliers

Outliers refer to observations that are significantly different from others (Hair *et al.*, 2019a). As discussed in Chapter 3, it is crucial to analyse outliers to ensure that data is valid and reliable. After careful examination of potential methods of outliers' identification, it is decided to perform univariate and multivariate detections of outliers. Following both methods, 21 outliers are identified (Appendix 6). As per Hair *et al.* (2019a) advice, the researcher creates a separate file with each outlier and its data to assess the data quality of responses. It is essential to perform throughout examination of outliers to ensure that observations which will be eliminated are extreme and non-consistent with the rest of the data. To assess outliers, a visual inspection of data together with descriptive statistics and standard deviation analysis is implemented. Statistical analysis demonstrates that outliers found have been identified as outliers due to different scoring on opinions and feelings about mobile providers from most samples. This is consistent with Hair *et al.* (2019a) and Saunders *et al.* (2019) who pointed out that in social sciences outliers in datasets can potentially be an extreme difference in people's perceptions. Upon analysis, it would appear that several cases would score differently from a sample due to straight-lining through one of the questions or being inconsistent with their responses. Therefore, 6 outliers are considered outliers and removed, bringing the total count of responses to 280.

5.3 Descriptive statistics analysis

This section aims to provide an overview of the model's constructs and descriptive statistics. Firstly, it outlines each construct's mean, median, and standard deviation. Next, normality testing is conducted. Finally, the section concludes by assessing the sample's demographics.

5.3.1 Mean, median, and standard deviation of model's constructs

Mean, median and standard deviations are calculated for the model's construct and presented in Table 17 below.

Construct	Indicator	Mean	Median	Std. Deviation	Skewness	Kurtosis
Perception of control over website interactions	CONTROL1	3.81	4	.71	-.42	.26
	CONTROL2	3.64	4	.77	-.4	-.14
	CONTROL3	3.78	4	.77	-.52	.17
	CONTROL4	3.69	4	.84	-.47	.09
Trust towards a company	TRUST1	3.71	4	.89	-.80	.96
	TRUST2	3.88	4	.87	-.97	1.56
	TRUST3	3.71	4	.92	-.76	.71
	TRUST4	4.04	4	.82	-1.05	1.82
	TRUST5	3.88	4	.9	-1.02	1.46
Negative emotions towards a company	NE1	1.54	1	.81	1.65	2.67
	NE2	1.66	1	.98	1.71	2.6
	NE3	1.69	1	.93	1.48	1.98
	NE4	1.61	1	.88	1.47	1.7
	NE5	1.83	1.5	1.05	1.30	1.04
Positive emotions towards a company	PE1	3.54	4	.94	-.36	.09
	PE2	3.77	4	.84	-.6	.65
	PE3	3.37	4	.97	-.82	.39
	PE4	3.28	3	1.03	-.65	.05
	PE5	3.20	3	1.06	-.31	-.21
Intended behaviour towards a company	BEH1	3.71	4	.92	-.74	.54
	BEH2	3.84	4	.81	-.78	1.21
	BEH3	3.82	4	.88	-.94	1.19
	BEH4	3.85	4	.95	-.8	.49
	BEH5	3.65	4	.91	-.62	.3
	BEH6	3.91	4	.82	-.91	1.42
Promotion-focus regulatory focus	RFPRM1	3.66	4	.92	-.69	.59
	RFPRM2	3.53	4	1.03	-.58	-.24
	RFPRM3	3.65	4	.85	-.3	.01
	RFPRM4	3.93	4	.80	-.79	.98
	RFPRM5	3.78	4	.87	-.6	.29
Prevention-focus regulatory focus	RFPRV1	3.58	4	.88	-.62	.42
	RFPRV2	3.24	3	1.08	-.24	-.74
	RFPRV3	3.08	3	1.13	-.11	-.78
	RFPRV4	3.08	3	1.13	-.11	-.78

Table 17. Descriptive statistics of main constructs.

From the descriptive statistics table, it is observed that almost all construct indicators (except for negative emotions) have a median score ranging between 3 and 4. Additionally, mean scores for indicators fall in the range of 3, except for negative emotions which mean scores were in the range of 1. As the researcher has adopted a 5-point Likert scale, these findings are expected. Analysis of standard deviation coupled with skewness and kurtosis signposts that the dataset does not have normal distribution as scores deviate substantially. Finally, Harman's single-factor test reveals that study variables load on different factors, with the first factor accounting for 29% of the total variance, which is below the critical threshold of 50%. Therefore, it is

concluded that this study doesn't suffer from common method bias. The next section focuses on examining distribution normality.

5.3.2 Normality testing

The next step in data examination is to test for normality. Testing for normality is an essential step in quantitative research to investigate data distribution (Saunders *et al.*, 2019). Data distribution plays a key role in the decision-making of statistical tests (Saunders *et al.*, 2019). As previously discussed in Chapter 4, the research adopts Kolmogorov-Smirnov tests to calculate the level of significance for the variation in the sample (Hair *et al.*, 2019a, p. 96). If the significance level, or *p*-value is .05 or less that would indicate that the data is not normally distributed. However, researchers caution against using just Kolmogorov-Smirnov as those are sensitive to sample size (Hair *et al.*, 2019a). Consequently, this research employs the Kolmogorov-Smirnov test together with an analysis of *z*-scores for skewness and kurtosis to assess normality. Accordingly, if the *z*-score of skewness or the *z*-score of kurtoses falls out of the range of +-1.96 that would suggest a non-normal distribution (Chapter 4).

Analysis of normality shows that variables are mostly non-normally distributed (Appendix 7). As a result, the researcher needs to decide on how to approach non-normality. According to the literature, there are two main ways to deal with non-normal distribution. On one hand, the researcher can transform variables to fit the normal distribution. Alternatively, the researcher can perform non-parametric tests instead of parametric ones where normality is not required. As it is not feasible to transform all the variables to fit the normal distribution and the researcher adopts PLS-SEM as a statistical analysis method to run non-parametric tests, non-normal distribution does not require any further interventions.

5.3.3 Demographics analysis

Demographics analysis helps the researcher to establish whether the dataset has an equal distribution of participants based on gender, age, and network provider. As described in Chapter 4, this study with the help of Qualtrics has employed quotas ensuring that the researcher has an equal split based on gender and age. This chapter section provides an overview of the sample split per gender, age, Vodafone tenure, and customers' regulatory focus orientation.

5.3.3.1 Total sample

Analysis of gender shows that the researcher managed to get a nearly equal split between male and female respondents: 132 participants are male (47.1%), and 148 participants are female

(52.9%). Next, the age group split is analysed. In total, 30 respondents are between 18-24 (1.7%), 57 respondents are between 25-34 (2.4%), 56 respondents are between 35-44 (2.0%), 52 respondents are between 45-54 (18.6%), 85 respondents are 55+ (3.4%).

Furthermore, the respondents were asked to indicate how long they have been with the network provider. As a result of this, the following splits are achieved: 48 respondents are with Vodafone for less than 1 year (17.1%), 47 respondents are with Vodafone for 1-3 years (16.8%), 48 respondents are with Vodafone for 3-5 years (17.1%), and 137 respondents are with Vodafone for more than 5 years (48.9%). The current sample appears to be slightly skewed towards longer tenure with Vodafone, however, it is not considered to be biased due to several reasons. Firstly, the current context of this study is buying a contract handset from a mobile network provider which on average has a contract length of between 2 to 3 years (Mintel, 2018; Mintel, 2020). Secondly, due to this study happening during the spring of 2022 when the economic effects of the COVID-19 pandemic on living costs started to emerge, customers are now staying for longer with their current mobile network providers to decrease costs (Mintel, 2022). Lastly, the current study employs a range of PLS-SEM tests, as a method of statistical analysis which can account for biases in the sample. Therefore, based on the reasons outlined, the current sample is considered to be fit for this research.

5.3.3.2 Regulatory Focus Groups

As this research focuses on investigating how customers' regulatory focus orientation impacts relationships between customers' perception of control over website interactions and customers' emotions, trust and intended behaviour towards a company, it is important to split the total sample into regulatory focus groups.

To investigate the moderating effect of regulatory focus on the model's paths, the researcher needs to differentiate between promotion-focus orientation and prevention-focus orientation. The regulatory focus has been assessed through the promotion-focus measurement scale and prevention-focus measurement scale. To run the multi-group comparison, both scales need to be transformed into binary groups of promotion-focus and prevention-focus. Before creating unique promotion-focus and prevention-focus groups, measurement scales are tested for reliability and validity. Group formation is run with the assistance of SPSS software.

To examine regulatory focus measurement scales' reliability, Cronbach's alpha test is performed. Similarly to the analysis of the measurement model (Chapter 5, Section 5.5.2),

Cronbach's alpha of regulatory focus scale should be .70 or above to meet reliability requirements.

Promotion regulatory focus (Cronbach's Alpha = .798)		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PRM1	I frequently imagine how I will achieve my hopes and aspirations.	14.870	6.948	.699	.500	.720
PRM2	I often think about the person I would ideally like to be in the future.	15.010	7.541	.451	.219	.808
PRM3	I typically focus on the success I hope to achieve in the future.	14.890	7.497	.628	.435	.745
PRM4	In general, I am focused on achieving positive outcomes in my life.	14.610	7.930	.574	.362	.763
PRM5	I often imagine myself experiencing good things that I hope will happen to me.	14.760	7.622	.581	.358	.759
Promotion regulatory focus (Cronbach's Alpha = .642)		**Scale Mean if Item Deleted**	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
PRV1	I frequently think about how I can prevent failures in my life.	1.040	4.547	.550	.370	.492
PRV2	I am anxious that I will fall short of my responsibilities and obligations.	1.390	4.231	.448	.273	.554
PRV3	I often imagine myself experiencing bad things that I fear might happen to me.	1.540	4.091	.440	.249	.564
PRV4	In general, I am focused on preventing negative events in my life.	9.900	5.692	.276	.248	.659

Table 18. Cronbach's Alpha of regulatory focus scales.

Table 18 demonstrates that promotion regulatory focus has a high level of reliability with Cronbach's Alpha being .798. On another hand, Cronbach's Alpha for prevention regulatory focus is .642 (Table 18). Whilst it is lower than the threshold of .70, Hair *et al.,* (2021) postulate that in social sciences, and especially in exploratory, researchers can accept the Cronbach's Alpha coefficient between .60 and .70. Alternatively, the researcher can remove the PRV4 indicator from the scale and ran reliability test again to see if there has been an improvement in Cronbach's Alpha coefficient. However, Hair *et al.,* (2021) caution before the removal of indicators, the researcher needs to run the validity analysis to examine how the removal of indicators will influence the validity of scales.

Hence, the researcher performs principal component factor analysis with Varimax rotation to examine regulatory focus scale validity (Saunders *et al.*, 2019). Factor analysis helps to investigate scale validity by grouping indicators under underlying factors (Chapter 4, Section 5.7.4) (Saunders *et al.*, 2019). Whilst analysis of the regulatory promotion-focus scale did not

show an issue of validity, initial factor analysis shows the issues of validity with original indicators for regulatory prevention-focus. Specifically, factor analysis shows two separate factors under one scale of regulatory prevention scale which is not acceptable for this research. Therefore, in line with Cronbach's alpha analysis, the researcher removes the PRV4 indicator and runs analysis principal component factor analysis again (Table 19).

Item		Factor 1	Factor 2
		PRM (Cronbach's Alpha = .798)	***PRV (Cronbach's Alpha =.659)***
PRM1	I frequently imagine how I will achieve my hopes and aspirations.	.797	
PRM2	I often think about the person I would ideally like to be in the future.	.478	
PRM3	I typically focus on the success I hope to achieve in the future.	.791	
PRM4	In general, I am focused on achieving positive outcomes in my life.	.807	
PRM5	I often imagine myself experiencing good things that I hope will happen to me.	.726	
PRV1	I frequently think about how I can prevent failures in my life.		.568
PRV2	I am anxious that I will fall short of my responsibilities and obligations.		.840
PRV3	I often imagine myself experiencing bad things that I fear might happen to me.		.786

Table 19. Principal component factor analysis of regulatory focus scales.

Factor analysis results in two factors explaining 61.20 per cent of variance, with Kaiser–Meyer–Olkin measure of sampling adequacy of .814 and the significant Barlett's Test of Sphericity. Whilst Pilot 2 identified the current scale as an appropriate measure for regulatory focus, it had a relatively small sample size meaning that issues with the validity of the scale were not present at the time. Nonetheless, building upon analysis conducted, it is concluded that the factor analysis suggests two variables of promotion and prevention regulatory focus implying that scales are valid.

Table 20 provides a descriptive statistics overview of regulatory promotion-focus and regulatory prevention-focus.

Descriptive statistics	PRM	PRV
Mean	3.708	3.299
Median	3.800	3.333
Std. Deviation	.668	.795

Variance	.447	.632
Skewness	-.398	-.242
Kurtosis	.181	-.011
Range	3.40	4.000
Minimum	1.600	1.000
Maximum	5.000	5.000

Table 20. Descriptive statistics of promotion and prevention-focus scales.

As previously mentioned, to perform a multi-group analysis, the researcher needs to transform the regulatory promotion focus and regulatory prevention focus into binary groups. Theoretically, and methodologically, there are different ways of doing so by either splitting by the median or scale centre. A significant amount of empirical research has been done in the past years to investigate how to appropriately differentiate between promotion and prevention focus to ensure that the groups have a correct prominent split (Freitas and Higgins, 2002; Higgins, 1998; Louro *et al.*, 2005; Haws *et al.*, 2010). As this research is interested in investigating differences between customers' promotion-focus versus prevention-focus, it is crucial to split the group by the research aim. Thus, the researcher follows previous research and first calculates the difference between promotion-focus and prevention-focus, followed by splitting the results of differences by the median (Lee and Koo, 2012; Werth and Foerster, 2007; Ku *et al.*, 2012; Louro *et al.*, 2005). By doing so, the researcher ensures that distinguished and correct groups of promotion vs prevention emerge. Table 21 below provides an overview of established groups.

Regulatory Focus orientation	**Frequency**	**Per cent**
Promotion	146	52.1%
Prevention	134	47.9%
Total	**280**	**100%**

Table 21. Regulatory Focus groups overview.

After descriptive statistics and relevant groups have been discussed, the next step in data analysis is structural equation modelling.

5.4 Structural Equation Modelling – Partial Least Squares Analysis

PLS-SEM is employed as an appropriate multivariate analysis for this study (Chapter 4). Before proceeding to the main data analysis and results, it is essential to re-visit the main terminology of PLS-SEM. As mentioned in Chapter 4, PLS-SEM requires path modelling which consists of two components known as the measurement model and the structural model

(Hair *et al.*, 2021). The measurement model, or outer model, explains relationships between the model's variables (constructs) and their measures, whereas the structural model, or inner model, describes hypothesised relationships between constructs (Hair *et al.*, 2021). For this study, five constructs form the inner model such as Customers' perception of control over website interactions, Trust towards a company, Positive Emotions towards a company, Negative Emotions towards a company, and Intended Behaviours towards a company.

To recap, data analysis is split into four main stages. Firstly, the researcher assesses the measurement model, where matters of validity and reliability are discussed. Next, an analysis of the structural model is conducted, and the model's path relationships are examined against the R^2 value, f^2 value, and model's predictive power (PLSPredict). Following analysis of the structural model, mediation analysis, assessment of control groups, and moderation analysis are performed. The chapter finishes by providing an overview of the findings (Figure 25).

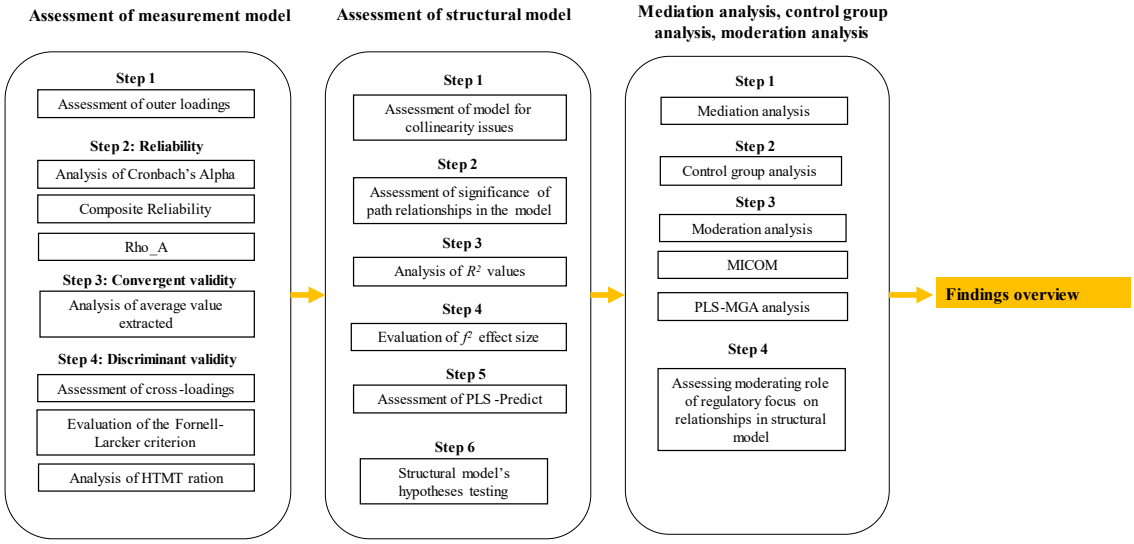


Figure 25. PLS-SEM data analysis stages overview.

5.5 Assessment of measurement model

The first step in the analysis is to access the measurement model which consists of five constructs (Figure 26 below):

- Customers' perception of control over website interactions
- Positive Emotions towards a company
- Negative Emotions towards a company

- Trust towards a company
- and Intended Behaviour towards a company

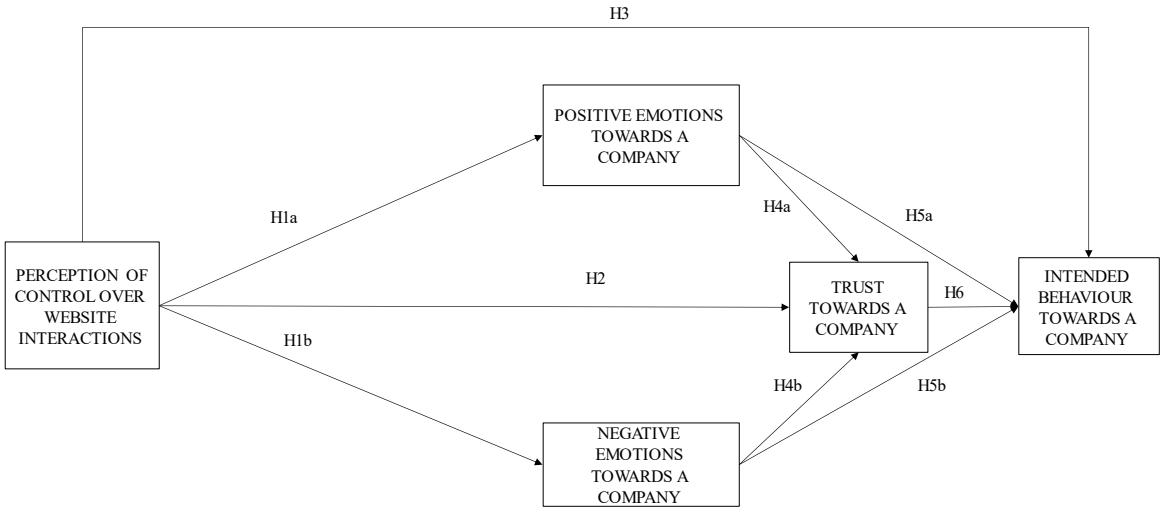


Figure 26. This study's conceptual model.

Since all measures in the model are reflective, the researcher follows the approach suggested by Hair *et al.* (2021) which focuses on the analysis of validity and reliability. Specifically, Outer Loadings, Cronbach's Alpha, Composite Reliability, Average Variance Extracted (AVE), and Discriminant Validity are going to be investigated as an analysis of the measurement (outer) model.

5.5.1 Outer loadings

The first step in the assessment of the measurement model is to evaluate the outer loadings of indicators. Outer loadings should be .708 or higher to ensure that the variable explains at least 50% of indicator variance. Analysis of outer loadings helps the researcher to understand the construct's indicators and relationships to its construct (Hair *et al.,* 2021). As presented in Table 22 below, most of the reflective constructs have acceptable levels of outer loadings except for positive emotions. Hair *et al.,* (2021) suggest that rather than eliminating coefficients that are below the threshold, it is essential to conduct further investigation on whether removing those indicators will improve composite reliability (CR) or average variance extracted (AVE).

Outer loadings		
CUSTOMERS' PERCEPTION OF CONTROL OVER WEBSITE INTERACTIONS.		
CONTROL1	.814	$p < .001$
CONTROL2	.806	$p < .001$
CONTROL3	.802	$p < .001$
CONTROL4	.807	$p < .001$
TRUST TOWARDS A COMPANY		
TRUST1	.865	$p < .001$
TRUST2	.885	$p < .001$
TRUST3	.827	$p < .001$
TRUST4	.772	$p < .001$
TRUST5	.880	$p < .001$
POSITIVE EMOTIONS TOWARDS A COMPANY		
PE1	.849	$p < .001$
PE2	.823	$p < .001$
PE3	.673	$p < .001$
PE4	.719	$p < .001$
PE5	.836	$p < .001$
NEGATIVE EMOTIONS TOWARDS A COMPANY		
NE1	.887	$p < .001$
NE2	.880	$p < .001$
NE3	.779	$p < .001$
NE4	.900	$p < .001$
NE5	.862	$p < .001$
INTENDED BEHAVIOUR TOWARDS A COMPANY		
BEH1	.882	$p < .001$
BEH2	.846	$p < .001$
BEH3	.753	$p < .001$
BEH4	.893	$p < .001$
BEH5	.881	$p < .001$
BEH6	.879	$p < .001$

Table 22. Outer loadings of measurement model's constructs.

Although a discussion of reliability and validity will follow in the next section, as per the guidance of Hair *et al.,* (2021), the researcher analysed composite reliability and average variance extracted to decide whether to remove one indicator from the positive emotions construct (PE3 = Attentive). Table 23 represents initial reliability and validity measures as well as reliability and validity measures after the removal of one positive emotion indicator.

Results (1)				
Constructs	**Cronbach's Alpha**	**rho_A**	**Composite Reliability**	**Average Variance Extracted (AVE)**
Customers' perception of control over website interactions	.824	.826	.883	.653
Positive emotions towards a company	**.835**	**.864**	**.882**	**.601**
Negative emotions towards a company	.914	.924	.936	.744
Trust towards a company	.901	.902	.927	.717
Intended behaviour towards a company	.927	.931	.943	.735

Results (2)				
Constructs	**Cronbach's Alpha**	**rho_A**	**Composite Reliability**	**Average Variance Extracted (AVE)**
Customers' perception of control over website interactions	.824	.827	.883	.653
Positive emotions towards a company	**.826**	**.851**	**.883**	**.654**
Negative emotions towards a company	.914	.924	.936	.744
Trust towards a company	.901	.902	.927	.717
Intended behaviour towards a company	.927	.933	.943	.734

Table 23. Measurement model's construct's reliability and validity.

Analysis of CR and AVE shows that the reliability of positive emotions decreases if the PE3 indicator is removed, whilst the average variance extracted improves from .601 to .654. Hulland (1999) argues that in social sciences due to the nature of constructs, outer loading coefficients between .60 and .70 should be accepted (Hair *et al.,* 2021, p. 117). Supporting this argument, whilst an AVE of .654 is higher than the original one, Hair *et al.,* (2021) suggest AVE coefficient higher than .50 is acceptable as the constructs explain more than half of the variance of its indicators (Hair *et al.,* 2021, p. 117). Therefore, by Hair *et al.,* (2021), it is decided not to remove one indicator from positive emotions which have an outer loading less of than .708. Lastly, all outer paths are statistically significant, $p < .001$.

Next, the reliability of the model's constructs is discussed (Figure 27).

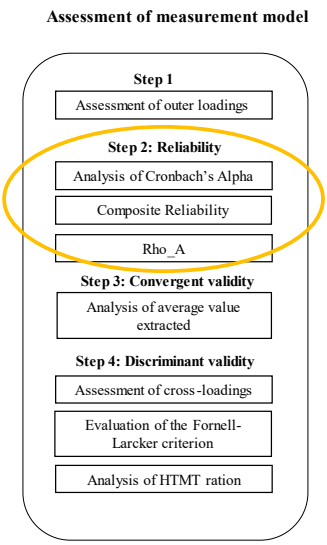


Figure 27. PLS-SEM analysis of measurement model – step 2.

5.5.2 Reliability analysis

In the current research, the reliability of the measurement model is assessed based on Cronbach's Alpha, composite reliability and rho_A coefficients (Chapter 4). All three coefficients range between 1 and 0, with higher values indicating higher levels of reliability (Hair *et al.*, 2021). Supporting Hair *et al.* (2021), this study employs all three reliability metrics to complement each other and to ensure that all measures are reliable. To satisfy the condition of reliability, Cronbach's Alpha, composite reliability and rho_A should be higher than .70 (Hair *et al.*, 2021).

Constructs	Cronbach's Alpha	rho_A	Composite Reliability
Customers' perception of control over website interactions	.824	.826	.883
Positive emotions towards a company	.835	.864	.882
Negative emotions towards a company	.914	.924	.936
Trust towards a company	.901	.902	.927
Intended behaviour towards a company	.927	.931	.943

Table 24. Reliability measures for the measurement model.

Table 24 above indicates that all constructs meet the requirement of .70 and above on all three reliability measures. As observed in Table 24, trust, negative emotions and intended behaviour perform high on reliability, ranging between .91 and .93. Whilst reliability for those constructs is high, in line with a recent Hair *et al.* (2019b) article which indicates that reliability values between .70 and .95 are acceptable, it has been decided to accept all reflective constructs as reliable.

After the measurement model is established to be reliable, the next step is to assess the model's validity (Figure 28).

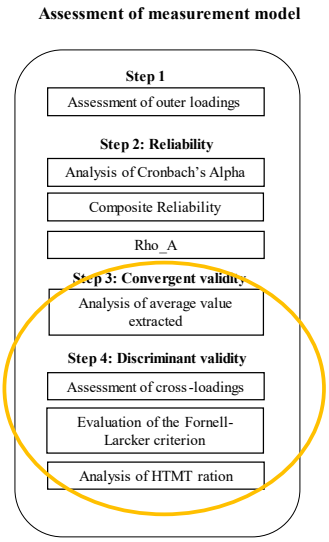


Figure 28. PLS-SEM analysis of measurement model – step 3.

5.5.3 Validity analysis

To examine the measurement model's validity, an analysis of convergent and discriminant validity is employed (Chapter 4, Section 4.8.3.3). To assess convergent validity, the Average Variance Extracted (AVE) is analysed. AVE value of .50 or higher indicates that the construct determines more than half of the variance of indicators indicating the validity of the construct (Hair *et al.,* 2021, p. 120). As presented in Table 25 below, all model constructs have an acceptable AVE value of .601 or above.

Constructs	Average Variance Extracted (AVE)
Customers' perception of control over website interactions	.653
Positive emotions towards a company	.601
Negative emotions towards a company	.744
Trust towards a company	.717
Intended behaviour towards a company	.735

Table 25. Convergent validity evaluation of measurement model's constructs.

Once convergent validity has been examined, the next step is to assess the measurement model's discriminant validity. The Fornell-Larcker criterion, cross-loadings, and the heterotrait-monotrait (HTMT) are used to evaluate discriminant validity (Hair *et al.,* 2019). Typically, cross-loadings are the first method used to examine the discriminant validity of reflective indicators (Hair *et al.,* 2021). To establish discriminant validity, an indicator's outer

loadings should be greater than any of its cross-loadings on other constructs in the model (Hair *et al.,* 2021, p. 122).

CONSTRUCTS' INDICATORS	Customers' perception of control over website interactions	Trust towards a company	Positive emotions towards a company	Negative emotions towards a company	The intended behaviour of a company
CONTROL1	.814	.433	.382	-.233	.374
CONTROL2	.806	.401	.385	-.191	.410
CONTROL3	.802	.434	.422	-.187	.358
CONTROL4	.807	.499	.470	-.265	.416
TRUST1	.413	.865	.479	-.381	.653
TRUST2	.402	.885	.484	-.399	.664
TRUST3	.564	.827	.525	-.400	.632
TRUST4	.448	.772	.435	-.411	.632
TRUST5	.492	.880	.560	-.364	.675
PE1	.472	.552	.849	-.225	.568
PE2	.442	.515	.823	-.134	.455
PE3	.267	.378	.673	-.054	.282
PE4	.338	.273	.719	-.026	.263
PE5	.430	.482	.836	-.072	.454
NE1	-.241	-.390	-.108	.887	-.402
NE2	-.216	-.466	-.147	.880	-.484
NE3	-.168	-.310	-.055	.779	-.342
NE4	-.244	-.361	-.098	.900	-.417
NE5	-.294	-.436	-.169	.862	-.447
BEH1	.472	.691	.442	-.427	.882
BEH2	.396	.630	.463	-.360	.846
BEH3	.359	.590	.406	-.333	.753
BEH4	.433	.675	.483	-.411	.893
BEH5	.484	.683	.479	-.409	.881
BEH6	.439	.735	.450	-.480	.879

Table 26. Cross-loadings of measurement model's constructs.

Table 26 suggests that all indicator's outer loadings are greater than any of their cross-loadings on other constructs accompanying the model's discriminant validity (Hair *et al.,* 2021).

The next approach to examine discriminant validity is to analyse the Fornell-Larcker criterion (Fornell and Larcker, 1981) (Chapter 4, Section 4.8.3.3). The Fornell-Larcker criterion ensures that a construct shares more variance with its indicators rather than with any other construct in the model (Fornell and Larcker, 1981). Following Hair *et al.,* (2021, p. 120), the square root of each construct's AVE should be higher than its correlations with any other construct in the model.

CONSTRUCTS' INDICATORS	Customers' perception of control over website interactions	Trust towards a company	Negative emotions towards a company	Positive emotions towards a company	Intended behaviour towards a company
Customers' perception of control over website interactions	**.808**				
Trust towards a company	.549	**.847**			
Negative emotions towards a company	-.273	-.461	**.863**		
Positive emotions towards a company	.516	.588	-.139	**.775**	
Intended behaviour towards a company	.483	.770	-.490	.548	**.857**

Table 27. The Fornell-Larcker criterion of measurement model's constructs.

Table 27 confirms that all constructs' square root of the AVE value exceeds its correlations with other model's constructs. Thus, it is concluded that the measurement model meets discriminant validity requirements. However, recent research has found limitations with applying cross-loadings or the Fornell-Larcker criterion as methods to assess discriminant validity (Hair *et al.,* 2021) (Chapter 4). Henseler *et al.* (2015) suggest examining the heterotrait-monotrait ratio (HTMT) of the correlations. Accordingly, Henseler *et al.* (2015) establish that HTMT threshold value of .85 to confirm discriminant validity. Adopting HTMT ratio analysis further assists the researcher in ensuring that the measurement's model constructs are valid.

MODEL'S CONSTRUCTS	Customers' perception of control over website interactions	Trust towards a company	Negative emotions towards a company	Positive emotions towards a company	Intended behaviour towards a company
Customers' perception of control over website interactions					
Trust towards a company	**.633**				
Negative emotions towards a company	**.308**	**.503**			
Positive emotions towards a company	**.601**	**.652**	**.151**		
Intended behaviour towards a company	**.548**	**.838**	**.523**	**.592**	

Table 28. Heterotrait-monotrait ratio (HTMT) of the measurement model's constructs.

As presented in Table 28 above, all constructs have HTMT value of less than .85. In line with Hair *et al.,* (2021) guidelines, the HTMT value threshold of .90 is accepted to establish the model's discriminant validity.

To further confirm discriminant validity, the bootstrapping technique is performed to evaluate the statistical significance of HTMT. Specifically, to investigate whether the HTMT value is statistically significant from the threshold (Hair *et al.,* 2021), (Chapter 4).

Model's paths	Original Sample (O)	Bias	2.50%	97.50%
Trust towards a company -> customers' perception of control over website interactions	.633	.002	.525	.726
Positive emotions towards a company -> customers' perception of control over website interactions	.601	.002	.492	.695
Positive emotions towards a company -> trust towards a company	.652	.001	.564	.753
Negative emotions towards a company -> customers' perception of control over website interactions	.308	.004	.159	.456
Negative emotions towards a company -> trust towards a company	.503	.001	.336	.645
Positive emotions towards a company -> negative emotions towards a company	.151	.023	.082	.241
Intended behaviour towards a company -> customers' perception of control over website interactions	.548	.002	.422	.654
Intended behaviour towards a company -> trust towards a company	.838	-.001	.768	.892
Intended behaviour towards a company -> positive emotions towards a company	.592	.001	.373	.649
Intended behaviour towards a company -> negative emotions towards a company	.523	-.000	.407	.594

Table 29. Bootstrapping for HTMT ratio of the measurement model.

Hair *et al.,* (2019) postulate that confidence intervals including a value of .90 would suggest a lack of discriminant validity, whereas if confidence intervals are less than .90 that would indicate that the two constructs are empirically different. Table 29 above presents that all constructs meet the requirement of being less than the threshold of .90.

To conclude, after an in-depth investigation of the measurement model, it is concluded that all constructs are reliable and valid and prepared for further examination. Table 30 below outlines the summary of the measurement model analysis. As described in Table 30 below, all constructs in the model meet the requirements of convergent and discriminant validity, and reliability dimensions establish that the measurement model is valid and reliable for further statistical analysis.

Variable	Indicators	Convergent Validity		Discriminant Validity		Reliability		
		Outer loadings	AVE	Cross-loadings & and the Fornell-Larcker criterion	HTMT ratio	Cronbach's Alpha	rho_A	Composite Reliability
		> .69	> .50	Is the root square of the AVE value greater than cross-loadings with other constructs?	HTMT confidence interval is below the .90 threshold value	.60-.90		
Customers' perception of control over website interactions	CONTROL1	.814	.653	YES	YES	.824	.826	.883
	CONTROL2	.806						
	CONTROL3	.802						
	CONTROL4	.807						
Trust towards a company	TRUST1	.865	.717	YES	YES	.901	.902	.927
	TRUST2	.885						
	TRUST3	.827						
	TRUST4	.772						
	TRUST5	.880						
Positive emotions towards a company	PE1	.849	.601	YES	YES	.835	.864	.882
	PE2	.823						
	PE3	.673						
	PE4	.719						
	PE5	.836						
Negative emotions towards a company	NE1	.887	.744	YES	YES	.914	.924	.936
	NE2	.880						
	NE3	.779						
	NE4	.900						
	NE5	.862						
Intended behaviour towards a company	BEH1	.882	.735	YES	YES	.927	.931	.943
	BEH2	.846						
	BEH3	.753						
	BEH4	.893						
	BEH5	.881						
	BEH6	.879						

Table 30. Validity & Reliability analysis summary of the measurement model.

The next sub-section presents the analysis of the structural model which is focused on testing the proposed conceptual framework.

5.6 Assessment of structural model

After all the model's constructs have been confirmed to be valid and reliable, the next step is to evaluate the structural model. To do so, the researcher assesses linear relationships between the model's constructs and analyses the model's predictive power. Evaluation of the structural model consists of six steps:

- Assessment of collinearity
- Assessment of the significance of the path coefficients
- Evaluation of the model's explanatory power (R^2 values)
- Evaluation of the model's explanatory power effect size (f^2)
- Assessment of predictive relevance through PLSPredict

Figure 29 below represents the current study's structural model.

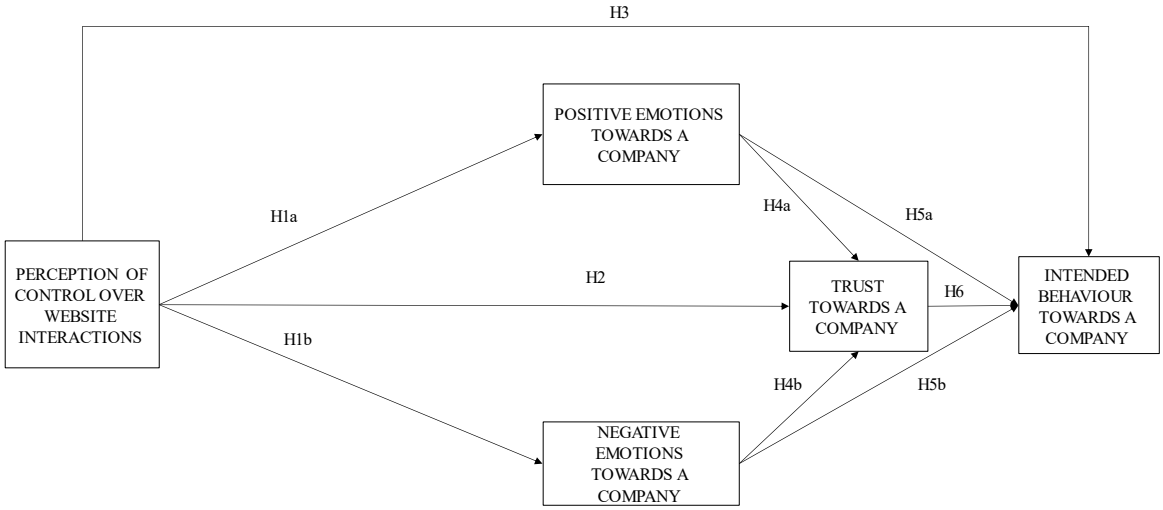


Figure 29. This study's structural model.

5.6.1 Assessment of collinearity

The first step in the analysis of the structural model is to investigate the structural model for collinearity (Hair *et al.,* 2021). It is important to do so as issues of collinearity might result in

biased results (Hair *et al.,* 2021). Collinearity is assessed through collinearity statistics value (VIF) which should be higher than .20 but below the threshold 5.

MODEL'S CONSTRUCTS	Customers' perception of control over website interactions	Trust towards a company	Positive emotions towards a company	Negative emotions towards a company	Intended behaviour towards a company
Customers' perception of control over website interactions		1.444	1.000	1.000	1.570
Positive emotions towards a company		1.363			1.735
Negative emotions towards a company		1.081			1.325
Trust towards a company					2.145

Table 31. Collinearity statistics value (VIF) of structural model's constructs.

Table 31 above shows that all constructs have a VIF value less than 5 indicating that the structural model does not have the issue of collinearity. Therefore, the researcher can conduct further analysis.

5.6.2 Assessment of structural model's path coefficients' significance

After the structural model has been assessed on the issue of collinearity, the next step is to evaluate the model's path coefficients (Figure 30). Path coefficients represent hypothesised relationships amongst constructs and range between -1 and +1 (Hair *et al.,* 2021) (Chapter 4, Section 4.8.4). Furthermore, as per Hair *et al.,* (2021) recommendation, the *t*-value and *p*-value are examined as part of path coefficients analysis to further understand if hypothesised relationships in the model are significant. To assess whenever path coefficients are significant, the *t*-value should be higher than 1.96 with the *p*-value being smaller than .05 (Hair *et al.,* 2021) (Chapter 4). To examine the *t*-value and *p*-value alongside path coefficients, the bias-corrected bootstrapping technique with 5000 re-samples is employed (Chapter 4, Section 4.8.4).

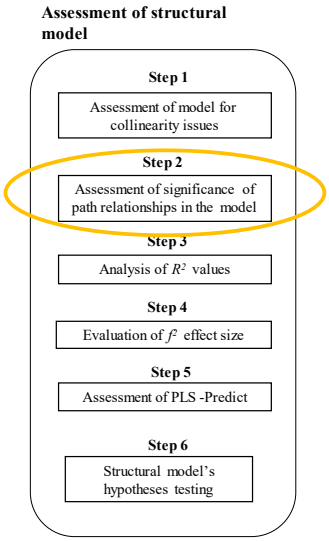


Figure 30. PLS-SEM analysis of structural model – step 2.

Table 32 below shows the path coefficient value together with the *t*-value and *p*-value statistics. As presented in Table 32, 8 out of 9 relationships have path coefficients closer to +-1. Similarly to path coefficients, 8 out of 9 relationships have empirical *t*-values higher than critical *t*-values of 1.96.

Model's paths	**Path coefficients**	**SD**	***t*-values**	***p*-values**
Customers' perception of control over website interactions -> positive emotions towards a company	.521	.042	12.154	.000
Customers' perception of control over website interactions -> negative emotions towards a company	-.278	.066	4.154	.000
Customers' perception of control over website interactions -> trust towards a company	.242	.053	4.583	.000
Customers' perception of control over website interactions -> intended behaviour towards a company	.033	.048	.656	.512
Trust towards a company -> intended behaviour towards a company	.554	.057	9.774	.000
Negative emotions towards a company > trust towards a company	-.338	.056	6.021	.000
Negative emotions towards a company ->intended behaviour towards a company	-.200	.043	4.679	.000
Positive emotions towards a company -> trust towards a company	.414	.044	9.514	.000
Positive emotions towards a company -> intended behaviour towards a company	.176	.056	3.134	.002

Table 32. Structural model's paths coefficients analysis.

Finally, to establish whenever hypothesised relationships in the model are significant, the *p*-value is evaluated. Table 32 demonstrates that 8 out of 9 relationships have a significant *p*-value of less than .05. Therefore, based on analysis of path coefficients, *p*-value and *t*-value, it is concluded that 8 out of 9 linear relationships in the model are significant. Based on the assessment of path coefficient significance, it is observed that the perception of control over

website interactions positively influences trust towards a company, and positive and negative emotions towards a company, $p < .001$. Yet, analysis of path coefficients shows that customers' perception of control over website interactions does not have a significant impact on intended behaviour towards a company, $p > .001$. Furthermore, positive and negative emotions are found to be positively influencing trust and intended behaviour towards a company, as well as trust positively impacting intended behaviour, $p < .001$.

To further understand relationships in the model, R^2 is assessed (Figure 31).

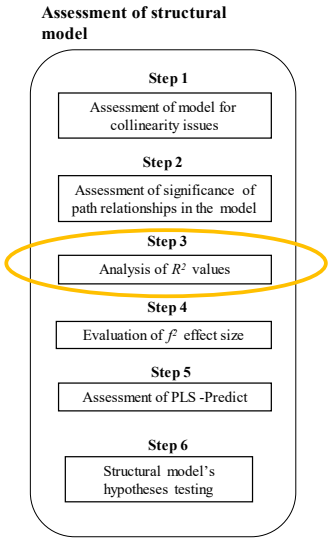


Figure 31. PLS-SEM analysis of structural model – step 3.

5.6.3 Evaluation of model's explanatory power (R^2)

The next step in data analysis is to assess the R^2 value. R^2 is used as the model's coefficient of determination which aims to describe the independent variables' combined effects on the dependent variable (Hair *et al.,* 2021, p. 194) (Chapter 4). Previous research struggles to agree on the acceptable level of R^2 value arguing that it would depend on research discipline and model complexity (Hair *et al.,* 2021). This research follows the guidance of Chin (1998) identifying R^2 value thresholds of .19, .33, and .67 as weak, moderate, and significant.

Table 33 demonstrates the R^2 and R^2 adjusted values of the structural model.

Model's constructs	**R^2**	**R^2 adjusted**	**Relationship strength**
Trust towards a company	.534	.529	Moderate-to-significant
Positive emotions towards a company	.266	.264	Weak-to-moderate
Negative emotions towards a company	.075	.071	Weak

Intended behaviour towards a company	.638	.633	Significant

Table 33. R2 and R2 adjusted values of the structural model's constructs.

Analysis establishes that the coefficient of determination of the model's constructs falls within the range of weak, R^2 for negative emotions towards a company = .075, weak-to-moderate, R^2 for positive emotions towards a company = .266, to moderate to significant, R^2 for trust = .534, to significant, R^2 for intended behaviour =.638. Following existing literature in social science and due to a limited number of independent variables explaining dependent variables, weak, moderate, and significant R^2 values are accepted.

The structural model's path coefficients and R^2 values are described in Figure 32 below.

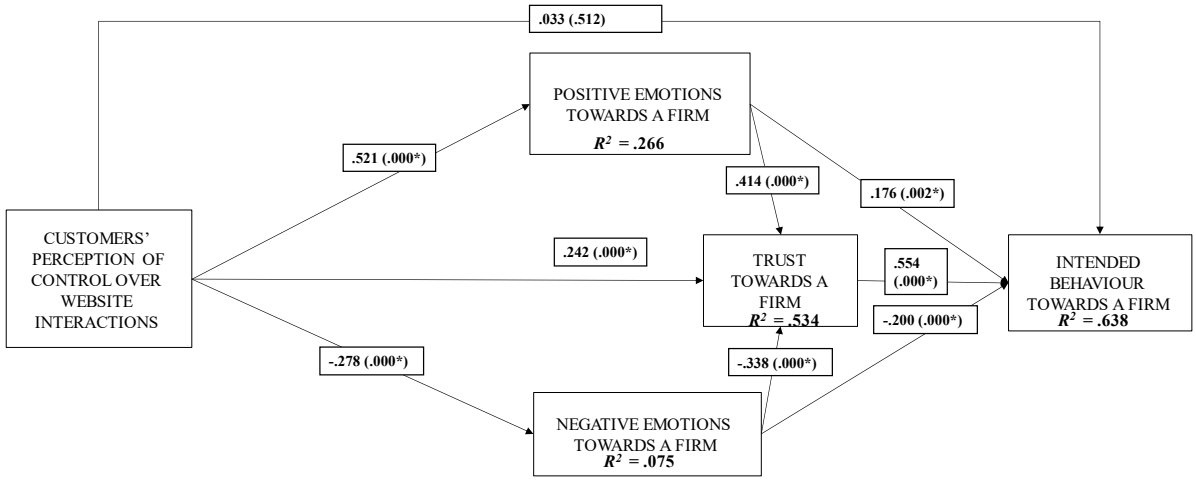


Figure 32. Structural model's path coefficients & and R2 values.

5.6.4 Evaluation of model's explanatory power effect size (f^2)

Once R^2 has been evaluated, the next stage in the assessment of the structural model is the analysis of the f^2 effect size (Chapter 4). f^2 focuses on exploring the change in the R^2 value of dependent constructs if a specific independent construct is removed from the model (Hair *et al.,* 2021). Hair *et al.,* (2021, p. 195) suggest that values of f^2 of .02, .15, and .35 demonstrate small, medium, and large effects of dependent variables, whilst f^2 value of less than .02 would indicate that there is no effect.

Independent variable	Dependent variable	$R^2_{included}$	$R^2_{excluded}$	f^2	Effect size
Customers' perception of control over website interactions	Positive emotions towards a company	.266	-	.363	Large
Customers' perception of control over website interactions	Negative emotions towards a company	.075	-	.081	Small
Customers' perception of control over website interactions	Trust towards a company	.534	.488	.087	Small
Customers' perception of control over website interactions	Intended behaviour towards a company	.638	.643	.002	No effect
Positive emotions towards a company	Trust towards a company	.534	.407	.273	Medium-to-large
Negative emotions towards a company	Trust towards a company	.534	.423	.226	Medium-to-large
Positive emotions towards a company	Intended behaviour towards a company	.638	.499	.050	Small
Negative emotions towards a company	Intended behaviour towards a company	.638	.621	.084	Small
Trust towards a company	Intended behaviour towards a company	.638	.612	.399	Large

Table 34. f^2 values of structural model's constructs.

Table 34 above describes the f^2 value for all hypothesised relationships in the model. As seen in Table 34, most of the effect size of the independent constructs on dependent constructs fall between the small and medium range, with the path between customers' perception of control over website interactions construct and positive emotions towards a company falling in the large range, and the path between trust towards a company and intended behaviour towards a company falling in the large range. On another hand, the path between customers' perception of control over website interactions and intended behaviour has no effect demonstrating that there are no direct relationships between those two constructs as per the analysis of R^2 value. However, that might indicate that there is potential mediation which is discussed later in the chapter.

To confirm the following findings, PLSPredict statistical analysis is performed (Figure 33).

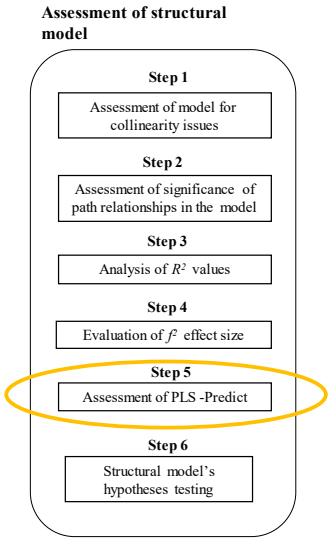


Figure 33. PLS-SEM analysis of structural model – step 5.

5.6.5 PLSPredict

As it has been previously mentioned, measures of Q^2 as a criterion for evaluating the model's predictive power have been challenged in the past years **(**Chapter 4). For this reason, Shmueli *et al.* (2019) suggest using a set of statistical techniques for out-of-sample predictions which consist of estimation of the model on an analysis sample and measurement of the model's predictive performance based on the data sample (Hair *et al.,* 2019b, p. 12). Discussion on adopting PLSPredict as a method of evaluating the model's out-of-sample predictive power can be found in Chapter 4.

To run the comparison, the researcher has deducted values of RMSE of PLS-SEM predictions from the LM benchmark (Table 35).

Constructs	PLS-SEM	LM benchmark	Calculations
	RMSE	RMSE	RMSE (PLS-SEM) - RMSE (LM)
Trust1	.823	.836	-.013
Trust2	.808	.811	-.003
Trust3	.770	.760	.010
Trust4	.742	.745	-.003
Trust5	.793	.801	-.008
NE1	.791	.801	-.010
NE2	.964	.971	-.007

NE3	.922	.931	-.009
NE4	.858	.863	-.005
NE5	1.009	1.015	-.006
PE1	.833	.832	.001
PE2	.759	.767	-.008
PE3	.944	.950	-.006
PE4	.980	.981	-.001
PE5	.961	.973	-.012
BEH1	.790	.796	-.006
BEH2	.876	.890	-.014
BEH3	.873	.879	-.006
BEH4	.848	.848	.000
BEH5	.717	.717	.000
BEH6	.756	.765	-.009

Table 35. RMSE of structural model's constructs' indicators.

Table 35 demonstrates that most model indicators RMSE are larger when compared to PLS-SEM predictions to LM benchmark. In line with Shmueli *et al.* (2019) and Hair *et al.,* (2019b), only a minority of constructs have RMSE values higher for PLS-SEM compared to the LM benchmark. That would indicate the model has a medium predictive power which is considered acceptable for this study.

After the structural model has been evaluated, the next section focuses on hypothesis testing for the main relationships in the conceptual model.

5.7 Structural model's hypotheses testing

Once the assessment of measurement and structural model has been conducted, the next step in the data analysis is to evaluate suggested hypotheses separately. Figure 34 below provides an overview of the proposed relationships in the model.

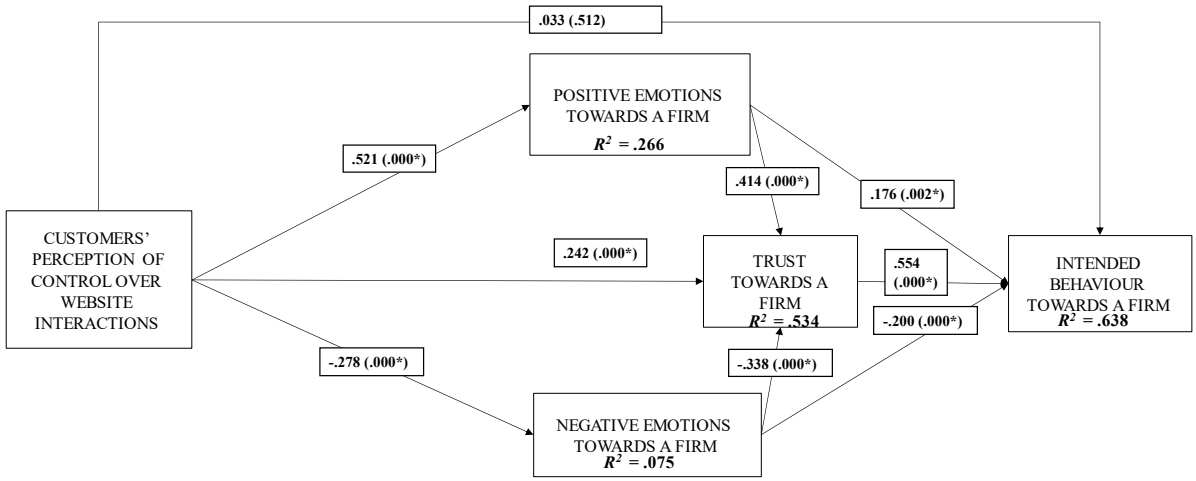


Figure 34. Structural model overview.

Moreover, Table 36 summarises the main statistical analysis of the proposed hypotheses.

Hypothesised relationships	*β*	SD	*t*-values	*p*-values	R^2	f^2	Effect size	Hypothesis
Customers' increased perception of control over website interactions -> positive emotions towards a company	.521	.042	12.154	.000	.266	.363	Large	**Supported**
Customers' decreased perception of control over website interactions -> negative emotions towards a company	-.278	.066	4.154	.000	.075	.081	Small	**Supported**
Customers' increased perception of control over website interactions -> trust towards a company	.242	.053	4.583	.000	.534	.087	Small	**Supported**
Customers' increased perception of control over website interactions -> intended behaviour towards a company	.033	.048	.656	.512	.638	.002	No effect	Not supported
Positive emotions towards a company -> trust towards a company	.414	.044	9.514	.000	.534	.273	Medium-to-large	**Supported**
Negative emotions towards a company > trust towards a company	-.338	.056	6.021	.000	.534	.226	Medium-to-large	**Supported**
Positive emotions towards a company -> intended behaviour towards a company	.176	.056	3.134	.002	.638	.050	Small	**Supported**
Negative emotions towards a company ->intended behaviour towards a company	-.200	.043	4.679	.000	.638	.084	Small	**Supported**
Trust towards a company -> intended behaviour towards a company	.554	.057	9.774	.000	.638	.399	Large	**Supported**

Table 36. Hypotheses testing summary.

5.7.1 Influence of customers' perception of control over website interactions on customers' emotions towards a company

The first model's relationship to evaluate is from customers' perception of control over website interactions to positive emotions towards a company. The following hypothesis is tested:

Hypothesis 1a: Customers' increased perception of control over website interactions leads to higher levels of positive emotions towards a company.

Hypothesis 1a is supported. For instance, the model establishes a statistically significant positive impact of customers' perception of control over website interactions on positive emotions towards a company (β = .521, t = 12.154, p < .001). The R^2 value of "Positive emotions" is .266 which suggests weak-to-moderate explanatory predictive power of customers' perception of control over website interactions. In line with this, further analysis of explanatory power demonstrates that by removing "Customers' perception of control over website interactions", there will be large effect changes in the R^2 value of positive emotions, f^2 = .363.

Next, the relationship between customers' perception of control over website interactions and negative emotions towards a company is assessed. Accordingly, the following hypothesis is examined:

Hypothesis 1b: Customers' decreased perception of control over website interactions leads to lower levels of negative emotions towards a company.

The model supports hypothesis 1b. Specifically, analysis shows the statistically significant positive impact of customers' perception of control over website interactions on negative emotions towards a company (β = -.278, t = 4.154, p < .001). However, the R^2 value of "Negative emotions" is .075 which implies weak explanatory predictive power of customers' perception of control over website interactions on negative emotions. This is further supported by removing "Customers' perception of control over website interactions" from the model, analysis demonstrates that there will be a small effect in changes in the R^2 value of negative emotions, f^2 = .081.

5.7.2 Influence of customers' perception of control over website interactions on trust towards a company

Next, the relationship between customers' perception of control over website interactions and trust towards a company is examined. The hypothesis is the following:

Hypothesis 2: Customers' increased perception of control over website interactions leads to higher levels of trust towards a company.

As presented in Table 36, the model supports Hypothesis 2. Particularly, customers' perception of control over website interactions positively influences trust towards a company and is found to be statistically significant, (β = .242, t = 4.583, p < .001). The R^2 value of "Trust" is .534 which suggests moderate-to-significant explanatory predictive power. Further analysis of explanatory power demonstrates that by removing "Customers' perception of control over website interactions, there will be small effect changes in R^2 value, f^2 = .087, confirming the positive significant effect from customers' perception of control over website interactions on trust towards a company.

5.7.3 Influence of customers' perception of control over website interactions on intended behaviour towards a company

The next model's relationship analysed is from customers' perception of control over website interactions to intended behaviour towards a company. The hypothesis is as follows:

Hypothesis 3: Customers' increased perception of control over website interactions leads to increases in intended behaviour towards a firm.

The model does not support Hypothesis 3 (Table 36). Specifically, the positive impact of customers' perception of control over website interactions during interaction on intended behaviour towards a company is found to be statistically insignificant (β = .033, t = .656, p > .05). Although R^2 value of dependent variable "Intended Behaviour" is .638, analysis of explanatory power suggests that by removing "Customers' perception of control over website interactions", there will be no significant changes in R^2 value, f^2 = .002.

5.7.4 Impact of customers' emotions towards a company on trust towards a company

The following section assesses hypotheses based on the relationship between positive emotions towards a company and trust towards a company. The following hypothesis is examined:

Hypothesis 4a: Customers' positive emotions lead to higher levels of trust towards a company.

As described in Table 36, Hypothesis 4a is supported. More specifically, positive emotions positively influence trust towards a company and are found to be statistically significant, β = .414, t = 9.514, p < .001. The R^2 value of "Trust" is .534 which suggests moderate-to-significant explanatory predictive power. Further analysis of explanatory power demonstrates that by removing "Positive emotions", there will be medium-to-large effect changes in the R^2 value of "Trust", f^2 = .273.

Next, the relationship between negative emotions towards a company and trust towards a company is examined. The hypothesis is as follows:

Hypothesis 4b: Customers' negative emotions lead to lower levels of trust towards a company.

The model supports Hypothesis 4b. Statistical analysis establishes that negative emotions decrease trust towards a company and is found to be statistically significant, β = -.338, t = 6.021, p < .001. Similarly to the previous section, the R^2 value of "Trust" is .534 which suggests moderate-to-significant explanatory predictive power. Further analysis of explanatory power demonstrates that by removing "Negative emotions", there will be medium-to-large changes in R^2 value, f^2 = .226.

5.7.5 Impact of customers' emotions towards a company on intended behaviour towards a company

Next, the model assesses the relationship between positive emotions towards a company and intended behaviour towards a company. The following hypothesis is tested:

Hypothesis 5a: Customers' positive emotions lead to increases in customers' intended behaviour towards a company.

Hypothesis 5a is supported. Particularly, it is established that positive emotions positively influence intended behaviour towards a company, and the relationship is found to be

statistically significant, (β = .172, t = 3.134, p < .005). The R^2 value of "Intended Behaviour" is .638 which suggests significant explanatory predictive power. However, analysis of explanatory power demonstrates that by removing "Positive emotions", there will be small effect changes in R^2 value, f^2 = .05.

The relationship between negative emotions towards a company and intended behaviour towards a company is investigated next. The hypothesis is as follows:

Hypothesis 5b: Customers' negative emotions lead to decreases in customers' intended behaviour towards a company.

Hypothesis 5b is supported. Specifically, analysis demonstrates that negative emotions negatively influence intended behaviour towards a company, (β = -.200, t = 4.679, p < .001). Similarly to the analysis in the previous section, the R^2 value of "Intended Behaviour" is .638 which suggests significant explanatory predictive power, yet analysis of explanatory power demonstrates that by removing "Negative emotions", there will be small effect changes in the R^2 value, f^2 = .084.

5.7.6 Impact of trust towards a company on intended behaviour towards a company

The next model's relationship examined is between trust towards a company and intended behaviour towards a company. The following hypothesis is investigated:

Hypothesis 6: Customers' trust leads to increases in customers' intended behaviour towards a company.

Hypothesis 6 is supported. More specifically, trust positively impacts intended behaviour and is found to be statistically significant, (β = .554, t = 9.774, p < .001). The R^2 value of "Intended Behaviour" is .638 which suggests significant explanatory predictive power. Further analysis of explanatory power demonstrates that by removing "Trust", there will be large effect changes in R^2 value, f^2 = .399.

To conclude, 8 out of 9 hypotheses are supported (Figure 35, Table 36).

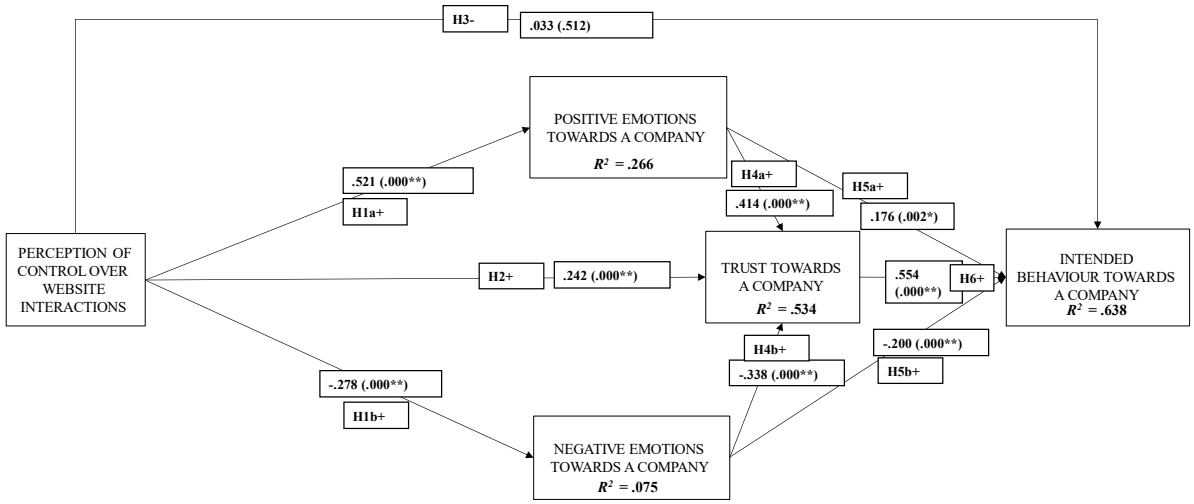


Figure 35. Structural model's hypotheses overview.

Whilst the relationship between customers' perception of control over website interactions and intended behaviour is found to be insignificant, the initial statistical analysis suggests customers' emotions and trust can potentially mediate the relationship. Hereafter, to further investigate the relationships in the model, the next section focuses on investigating mediation in the conceptual model.

5.8 Mediation analysis

Mediation analysis is the next step in investigating the impact of customers' perception of control over website interactions on intended behaviours towards a company (Figure 36). Mediation helps the researcher to further understand if there is an underlying mechanism that might influence relationships between independent and dependent variables.

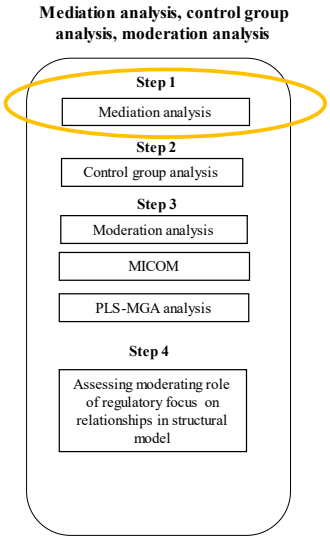


Figure 36. PLS-SEM data analysis overview – mediation.

Mediation occurs when a third variable intervenes between two hypothesised relationships. Specifically, the independent variable causes a change in the mediator which in turn changes the dependent variable (Chapter 4, Section 4.8.5) (Hair *et al.*, 2021). As briefly discussed in the previous section, this study potentially has multiple mediations between the perception of control over website interactions and intended behaviours towards a company through customers' emotions and trust (Figure 37).

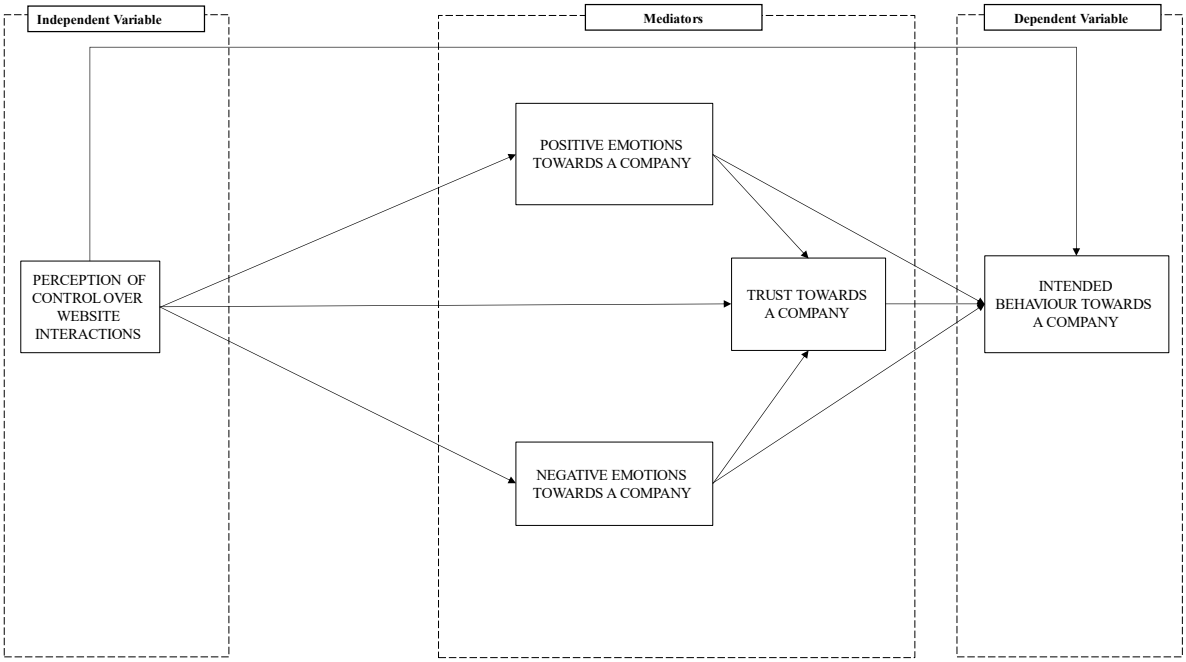


Figure 37. This study's multiple mediation model.

As per the guidance of Hair *et al.* (2021), the multiple mediation effect of mediator constructs is examined simultaneously. To evaluate the mediation effects of trust and positive and negative emotions, the first step is to assess the total indirect effects of perception of control over the website interactions on intended behaviour towards a company via multiple mediators.

Analysis of total indirect effects shows that there is a potential mediation effect between customers' perception of control over website interactions and intended behaviour towards a company (t = 1.781, p < .001). That would signpost that there are multiple mediators which influence a direct relationship between customers' perception of control over website interactions and intended behaviour towards a company.

To further support multiple mediation, Table 37 below reveals that positive and negative emotions, and trust towards a company potentially mediate the relationship between customers' perception of control over website interactions and intended behaviour towards a company. Analysis of coefficients and t-values establishes that mediation between the perception of control over website interactions and intended behaviour towards a company is slightly stronger through positive emotions and trust towards a company (β =.120, t = 5.491, p < .001) when compared to mediation through negative emotions and trust towards a company (β =.053, t = 2.866, p = .002).

Hypothesised paths	Indirect effects	SD	*t*-value	*p*-value
Customers' perception of control over website interactions → positive emotions towards a company → trust towards a company → intended behaviour towards a company	.120	.022	5.491	.000
Customers' perception of control over website interactions → negative emotions towards a company → trust towards a company → intended behaviour towards a company	.053	.018	2.866	.002

Table 37. Specific indirect effects between customers' perception of control over website interactions and intended behaviour towards a company.

To establish the type of multiple mediation between customers' perception of control over website interactions over website interactions and intended behaviour towards a company, the next step is to assess the direct paths in the model (Chapter 4, Section 4.8.5). Analysis acknowledges that there is no direct influence of customers' perception of control over website interactions on intended behaviour towards a company (β =.033, t = .656, p = .512).

According to Hair *et al.,* (2021), if the indirect effect is significant, and the direct effect is insignificant that would portray indirect-only full mediation (Chapter 4, Section 4.8.5). Hereafter, in line with Hair *et al.,* (2021), findings demonstrate the indirect relationships between customers' perception of control over website interactions and intended behaviour towards a company meaning that trust towards a company, and positive and negative emotions towards a company fully mediate the relationships.

Therefore, based on the analysis above, the following hypothesis is supported:

Hypothesis 7: Trust, positive and negative emotions fully mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company.

Statistical analysis supports this hypothesis and shows that positive emotions, negative emotions, and trust towards a company act as mediators between customers' perception of control over website interactions and intended behaviour towards a company (t = 1.781, p < .001). This study found that customers' perception of control over website interactions only influences intended behaviour towards a company through mediating constructs of positive emotions and trust towards a company (β =.120, t = 5.491, p < .001), and negative emotions and trust towards a company (β =.053, t = 2.866, p = .002).

Once mediation effects in the model have been investigated and established, the researcher moves on to the next stage of the analysis which is assessing control groups.

5.9 Control groups analysis

Analysis of control groups is an essential step in further understanding relationships between constructs in the model. It is important to do so to ensure that there are no confounding factors influencing relationships in the model. In this study, control variables are identified through theoretical and practical implications. From a theoretical perspective, age and gender are recognised as control variables (Venkatesh *et al.*, 2012; Venkatesh *et al.*, 2016). From a practical perspective, the researcher controls participants' time with Vodafone. This is due to the potential impact of customers' relationships with Vodafone on variables in the model.

To investigate the influence of control groups, multi-group analysis is adopted which is discussed in-depth in Chapter 4, Section 4.8.9. Firstly, the MICOM of control groups is examined, next PLS-MGA results are investigated together with a bootstrapping test.

MICOM helps to examine that groups differ not only in the current sample but across the whole population (Hair *et al.*, 2018). In PLS-SEM, the MICOM measure is assessed by performing a permutation test (Hair *et al.*, 2018). More on the MICOM procedure is described in Chapter 4, Section 5.8.6. MICOM procedure consists of three steps, where Step 1 establishes configural invariance, Step 2 establishes partial measurement invariance, and Step 3 determines full measurement invariance (Hair *et al.*, 2018). Hereafter, in line with the literature, to run multi-group analysis and compare path coefficients amongst groups, at least Step 1 and Step 2 needs to be fulfilled (Henseler *et al.*, 2016; Klesel *et al.*, 2022).

5.9.1 Control groups analysis based on participants' gender

Gender is acknowledged as the first control variable. Literature establishes that females and males can perceive things differently resulting in potential differences when assessing model's relationships. For instance, in the new and developed model of a unified theory of acceptance and use of technology, gender influences relationships between technology characteristics variables and behavioural intentions (Venkatesh *et al.*, 2012; Venkatesh *et al.*, 2016). Existing research has extensively investigated the role of gender in the relationships between website experiences, emotions, trust and intended behaviours (Gefen and Straub, 1997; Karjaluoto *et al.*, 2008; Dabholkar and Sheng, 2009; Wang, 2014). Hereafter, it is decided in this research to investigate gender as a control group.

Following descriptive statistics analysis, the sample has a nearly equal split between male and female respondents: 132 participants are male (47.1%) and 148 participants are female (52.9%)

(Chapter 5, Section 5.3.3). To analyse whether there are differences between males and females when assessing relationships in the model, multi-group analysis is adopted. Firstly, MICOM results suggest that gender group meets the essential requirement for conducting multi-group analysis by establishing Step 1 configural invariance and Step 2 establishes partial measurement invariance (Chapter 4) (Table 38).

MICOM (Step 2)				
Model's constructs	**Original Correlation**	**Correlation Permutation Mean**	**5.00%**	***p*-values**
Customers' perception of control over website interactions	1.000	.998	.995	**.952**
Trust towards a company	1.000	1.000	.999	**.921**
Positive emotions towards a company	1.000	.998	.996	**.401**
Negative emotions towards a company	1.000	.998	.994	**.407**
Intended behaviour towards a company	1.000	1.000	.999	**.354**
MICOM (Step 3)				
Model's construct	**Differences in the composite's mean value**	**2.50%**	**97.50%**	***p*-values**
Customers' perception of control over website interactions	-.001	-.225	.241	**.685**
Trust towards a company	.003	-.243	.242	**.933**
Positive emotions towards a company	.002	-.225	.236	**.202**
Negative emotions towards a company	.010	-.227	.250	**.788**
Intended behaviour towards a company	.005	-.253	.258	**.525**
Model's construct	**Differences in the composite's variance value**	**2.50%**	**97.50%**	***p*-values**
Customers' perception of control over website interactions	.012	-.338	.376	**.384**
Trust towards a company	.001	-.472	.461	**.478**
Positive emotions towards a company	.006	-.488	.480	**.419**
Negative emotions towards a company	-.003	-.377	.356	**.292**
Intended behaviour towards a company	.002	-.456	.473	**.480**

Table 38. MICOM procedure for gender control groups.

Therefore, as Step 2 of the MICOM procedure is confirmed meaning that for all constructs in the model, original correlations are not significantly different from 1 ($p > .05$), the researcher can move to PLS-MGA analysis.

PLS-MGA identifies relationships between customers' perception of control over website interactions and positive emotions towards a company are statistically significantly different for males and females, $p = .029$, as well as relationships between customers' perception of control over website interactions and intended behaviour towards a company, $p = .017$. Bootstrapping analysis further recognises differences between female and male participants (Table 39).

Hypothesised relationships	Path Coefficients Original (Female)	Path Coefficients Original (Male)	*p*-value (Female)	*p*-value (Male)
Customers' perception of control over website interactions → trust towards a company	.224	.252	.000	.004
Customers' perception of control over website interactions → positive emotions towards a company	.453	.622	.000	.000
Customers' perception of control over website interactions → negative emotions towards a company	-.292	-.271	.000	.014
Customers' perception of control over website interactions → intended behaviour towards a company	-.043	.170	.458	.015
Positive emotions towards a company → trust towards a company	.384	.445	.000	.000
Negative emotions towards a company → trust towards a company	-.357	-.335	.000	.000
Positive emotions towards a company → intended behaviour towards a company	.223	.101	.001	.322
Negative emotions towards a company → intended behaviour towards a company	-.240	-.149	.000	.014
Trust towards a company → intended behaviour towards a company	.555	.514	.000	.000

Table 39. Bootstrapping analysis for gender control groups.

Specifically, positive increases in customers' perception of control over website interactions are more likely to lead to positive emotions towards a company for males (β_{males} = .622, p < .001) rather than females ($\beta_{females}$ = .453, p < .001). That means that for males, the perception of control over their website interactions is more likely to lead to increases in positive emotions towards a company. Similarly, positive increases in customers' perception of control over website interactions are more likely to lead to intended behaviour towards a company for males (β_{males} = .170, p = .015) rather than females ($\beta_{females}$ = -.043, p = .458). Interestingly, the relationships between the perception of control over website interactions and customers' intended behaviour towards a company are statistically significant for males, but not females. These findings are not surprising and go in line with existing literature. In their comprehensive study, Dabholkar and Sheng (2009) establish that the influence of control on customers' evaluations differs depending on customers' gender. In sum, these results are not surprising, and the researcher expected gender to affect some of the relationships in the model.

5.9.2 Control groups analysis based on participants' age

Descriptive statistics reveal that there is nearly an equal split among seven age categories. More specifically, 30 respondents are between 18-24 (1.7%), 57 respondents are between 25-34 (2.4%), 56 respondents are between 35-44 (2.0%), 52 respondents are between 45-54 (18.6%), 85 respondents are 55+ (3.4%). However, to run a PLS-MGA analysis, the researcher needs to establish two binary groups. To do so, SPSS software is used to further split the age group in the middle. As a result, 143 respondents form one group aged between 18-44 (51.1%) and 137

respondents form another group aged 45 and above (48.9%). Similarly to gender group, age is established to influence relationships in the unified theory of acceptance and use of technology model (Venkatesh et al., 2012; Venkatesh et al., 2016). Furthermore, extensive research has been done on identifying how to deliver different digital technologies to different age groups signposting the difference between those (Chattaraman *et al.*, 2012; Kim and Sung, 2013; Stafford *et al.*, 2014).

Hereafter, multi-group analysis is conducted to investigate whether there is a difference between age groups in the relationships in the model. To do so, MICOM is performed (Table 40). Age control groups satisfy Step 1, Step 2, and Step 3 of the MICOM procedure meaning that the researcher can perform multi-group analysis.

MICOM (Step 2)				
Model's constructs	**Original Correlation**	**Correlation Permutation Mean**	**5.00%**	***p*-values**
Customers' perception of control over website interactions	.996	.998	.995	**.091**
Trust towards a company	1.000	1.000	.999	**.144**
Positive emotions towards a company	.997	.998	.994	**.272**
Negative emotions towards a company	.999	.998	.996	**.549**
Intended behaviour towards a company	1.000	1.000	.999	**.452**
MICOM (Step 3)				
Model's construct	**Differences in the composite's mean value**	**2.50%**	**97.50%**	***p*-values**
Customers' perception of control over website interactions	.006	-.244	.238	**.145**
Trust towards a company	.008	-.226	.229	**.558**
Positive emotions towards a company	.004	-.239	.258	**.783**
Negative emotions towards a company	-.001	-.239	.234	**.159**
Intended behaviour towards a company	.009	-.234	.228	**.940**
Model's construct	**Differences in the composite's variance value**	**2.50%**	**97.50%**	***p*-values**
Customers' perception of control over website interactions	-.001	-.377	.369	**.909**
Trust towards a company	-.005	-.506	.450	**.781**
Positive emotions towards a company	-.009	-.363	.374	**.367**
Negative emotions towards a company	-.002	-.475	.463	**.385**
Intended behaviour towards a company	-.008	-.477	.451	**.873**

Table 40. MICOM procedure – for age control groups.

Table 41 demonstrates that according to PLS-MGA, there are no significant differences in relationships in the model between customers in different age brackets. That reveals that age does not influence the relationships in the model.

Hypothesised relationships	Path Coefficients-diff (Age group (18-44) - Age group age (45+)	*p*-value (Age group (18-44) - Age group age (45+)
Customers' perception of control over website interactions → trust towards a company	.059	.604
Customers' perception of control over website interactions → positive emotions towards a company	-.080	.330
Customers' perception of control over website interactions → negative emotions towards a company	.192	.144
Customers' perception of control over website interactions → intended behaviour towards a company	-.050	.587
Positive emotions towards a company → trust towards a company	.041	.640
Negative emotions towards a company → trust towards a company	.056	.648
Positive emotions towards a company → intended behaviour towards a company	-.033	.768
Negative emotions towards a company → intended behaviour towards a company	-.006	.929
Trust towards a company → intended behaviour towards a company	.065	.566

Table 41. PLS-MGA analysis for age control groups.

5.9.3 Control groups analysis based on customers' time with Vodafone

The last control group assessed is customers' time with Vodafone. The current splits have been achieved in the sample: 48 respondents are with Vodafone for less than 1 year (17.1%), 47 respondents are with Vodafone for 1-3 years (16.8%), 48 respondents are with Vodafone for 3-5 years (17.1%), and 137 respondents are with Vodafone for more than 5 years (48.9%). As previously discussed in this chapter (Section 5.3), the current sample is slightly skewed towards Vodafone customers who have been with their provider for more than 5 years. The reasons behind it are discussed in section 5.3.

The current sample has four age groups and for PLS-MGA, four groups are allocated into two binary groups. One group is those who have been with Vodafone for less than 5 years and consist of 143 customers (51.1 %). Another group is those who have been with Vodafone for more than 5 years and consist of 137 customers (48.9%). Similar to the analysis of the previous two control groups, multi-group analysis is employed to investigate the influence of this control group. As previously, MICOM is conducted to ensure that control groups meet the multi-group analysis requirement of invariance (Table 42).

MICOM (Step 2)				
Model's constructs	**Original Correlation**	**Correlation Permutation Mean**	**5.00%**	***p*-values**
Customers' perception of control over website interactions	.997	.998	.995	**.221**
Trust towards a company	1.000	1.000	.999	**.992**
Positive emotions towards a company	.997	.998	.994	**.330**
Negative emotions towards a company	.998	.998	.996	**.287**
Intended behaviour towards a company	1.000	1.000	.999	**.231**
MICOM (Step 3)				
Model's construct	**Differences in the composite's mean value**	**2.50%**	**97.50%**	***p*-values**
Customers' perception of control over website interactions	.004	-.230	.233	**.086**
Trust towards a company	.003	-.240	.244	**.796**
Positive emotions towards a company	-.001	-.247	.239	**.436**
Negative emotions towards a company	-.002	-.241	.242	**.200**
Intended behaviour towards a company	.003	-.228	.229	**.208**
Model's construct	**Differences in the composite's variance value**	**2.50%**	**97.50%**	***p*-values**
Customers' perception of control over website interactions	-.001	-.365	.364	**.285**
Trust towards a company	.001	-.427	.428	**.181**
Positive emotions towards a company	.002	-.378	.357	**.201**
Negative emotions towards a company	-.002	-.474	.440	**.655**
Intended behaviour towards a company	.001	-.447	.442	**.655**

Table 42. MICOM procedure for tenure with Vodafone control groups.

MICOM analysis confirms Step 1, configural invariance, and Step 2, partial measurement invariance, and Step 3, full measurement invariance. This in turn indicates that the researcher can proceed with multi-group analysis. PLS-MGA establishes a statistically significant difference between Vodafone customers of tenure between 1 and 5 years and Vodafone customers of tenure longer than 5 years on relationships between negative emotions towards a company and intended behaviour towards a company (p = .015). To further analyse differences amongst groups, bootstrapping analysis is performed.

Hypothesised relationships	**Path Coefficients Original (Vodafone customers (Less than 5 years))**	**Path Coefficients Original (Vodafone customers (More than 5 years))**	***p*-value (Vodafone customers (1-5 years))**	***p*-value (Vodafone customers (5+ years))**
Customers' perception of control over website interactions → trust towards a company	.266	.208	.000	.014
Customers' perception of control over website interactions → positive emotions towards a company	.548	.510	.000	.000
Customers' perception of control over website interactions → negative emotions towards a company	-.226	-.373	.020	.000

Customers' perception of control over website interactions → intended behaviour towards a company	.111	-.034	.075	.578
Positive emotions towards a company → trust towards a company	.383	.447	.000	.000
Negative emotions towards a company → trust towards a company	-.327	-.352	.000	.000
Positive emotions towards a company → intended behaviour towards a company	.092	.277	.190	.001
Negative emotions towards a company → intended behaviour towards a company	-.121	-.304	.048	.000
Trust towards a company → intended behaviour towards a company	.604	.469	.000	.000

Table 43. Bootstrapping results for Vodafone control groups.

Bootstrapping analysis demonstrates that for Vodafone customers who are with Vodafone for longer than 5 years ($\beta_{longer\ than\ 5\ years}$ = -.304, p < .001), increases in negative emotions towards a company are more likely to decrease customers intended behaviour towards a company, compared with Vodafone customers who are with Vodafone for less than 5 years ($\beta_{less\ than\ 5\ years}$ = -.121, p = .048).

The findings of PLS-MGA recognise an interesting pattern of differences between Vodafone customers with longer tenure. Specifically, the findings show that for loyal Vodafone customers, decreases in negative emotions towards a company triggered the perception of control over website interactions are more likely to increase intended behaviour towards a company. This recognises the important role of emotional attributes in understanding loyal customers' intended behaviours towards a company. These results go in line with existing literature which acknowledges emotions playing an important role in driving intended behaviour towards a company for loyal customers (Gabbott *et al.*, 2011; Grisaffe and Nguyen, 2011; Kim and Tang, 2016; Le *et al.*, 2020).

The next step in further exploring the relationships between customers' perception of control over website experiences, positive, and negative emotions, trust, and intended behaviour towards a company, is to assess a moderating role of regulatory focus through PLS-MGA analysis (Figure 38).

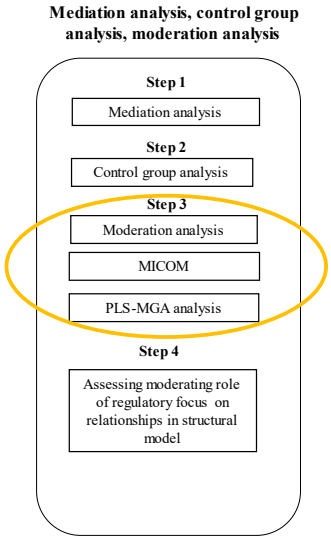


Figure 38. PLS-SEM data analysis overview - moderation stage.

5.10 Modelling for moderation effects – multi-group analysis

The next step in data analysis of this research is to assess the moderating effects of regulatory focus. Moderation occurs when a third variable in the model influences the strength or the direction of hypothesised relationships (Hair *et al.*, 2021). Specifically, as this study aims to identify how customers' regulatory focus impacts the relationships between customers' perception of control over website interactions and customers' emotions, trust, and intended behaviour towards a company, the regulatory focus construct is considered to be a moderator. The discussion on sample split based on regulatory focus orientation is presented in this section, specifically at 5.3.3.2. The total sample is split based on participants' regulatory focus orientation achieving a nearly equal sample split of 146 participants having a promotion regulatory focus (52.1%) and 134 participants having a prevention regulatory focus (47.9%).

To examine the moderating effects, multi-group analysis is adopted which is discussed in-depth in Chapter 4, Section 4.8.9. Modelling for the moderation effect of regulatory focus consists of two stages: firstly, MICOM analysis is conducted, and finally PLS-MGA is employed as a method of group comparison.

5.10.1 Measurement invariance of composite model's analysis (MICOM)

An in-depth discussion of the MICOM procedure is described in Chapter 4, Section 4.8.6. Table 44 presents MICOM procedure results.

MICOM (Step 2)				
Model's constructs	**Original Correlation**	**Correlation Permutation Mean**	**5.00%**	***p*-values**
Customers' perception of control over website interactions	1.000	.998	.995	**.963**
Trust towards a company	.999	1.000	.999	**.110**
Positive emotions towards a company	1.000	.998	.994	**.962**
Negative emotions towards a company	.998	.998	.996	**.250**
Intended behaviour towards a company	1.000	1.000	.999	**.208**
MICOM (Step 3)				
Model's construct	**Differences in the composite's mean value**	**2.50%**	**97.50%**	***p*-values**
Customers' perception of control over website interactions	.000	-.236	.226	**.036**
Trust towards a company	.004	-.222	.234	**.012**
Positive emotions towards a company	-.001	-.242	.244	**.057**
Negative emotions towards a company	-.003	-.242	.236	**.001**
Intended behaviour towards a company	.003	-.226	.227	**.129**
Model's construct	**Differences in the composite's variance value**	**2.50%**	**97.50%**	***p*-values**
Customers' perception of control over website interactions	-.007	-.354	.329	**.499**
Trust towards a company	-.011	-.503	.463	**.122**
Positive emotions towards a company	-.001	-.367	.352	**.599**
Negative emotions towards a company	-.008	-.464	.445	**.005**
Intended behaviour towards a company	-.015	-.492	.452	**.269**

Table 44. MICOM procedure – regulatory focus groups.

Whilst confirming Step 2 of MICOM is enough for the researcher to move on to multi-group analysis, it is still essential to check for full measurement invariance (Table 44). Step 3 of the MICOM procedure reveals that not all model's construct has full measurement invariance. Specifically, analysis of the *p*-value shows that only positive emotions towards a company ($p = .057$) and intended behaviour towards a company ($p = .129$) have equal mean values, ($p > .05$).

However, analysis of variance value demonstrates that most model's construct has an equal composite variance, ($p > .05$). The differences between *p*-values results for composite's mean values and variance values might arise from differences in regulatory focus scale as some participants in one group could have scored higher for promotion or visa a verse. Nonetheless, as not all model's construct has an appropriate level of *p*-values, full measurement invariance

is not established. Yet, as Step 2, or partial measurement invariance is established for all model's constructs, the researcher can move on to multi-group analysis.

5.10.2 Multi-group analysis: PLS-MGA analysis for the hypothesised relationships in the model

After partial measurement invariance is established, the researcher can perform multi-group analysis (PLS-MGA). More discussion on the multi-group analysis method can be found in Chapter 4, Section 4.8.9. Table 45 below outlines the results of PLS-MGA on differences between the promotion and prevention focus on relationships in the research model.

Model's paths	**Path Coefficients Differences (Prevention-focus customers – Promotion-focus customers))**	***p*-value**
Customers' perception of control over website interactions → trust towards a company	.112	.266
Customers' perception of control over website interactions → positive emotions towards a company	.015	.857
Customers' perception of control over website interactions → negative emotions towards a company	-.002	.982
Customers' perception of control over website interactions → intended behaviour towards a company	-.068	.479
Positive emotions towards a company → trust towards a company	.073	.374
Negative emotions towards a company → trust towards a company	.199	.049
Positive emotions towards a company → intended behaviour towards a company	.091	.422
Negative emotions towards a company → intended behaviour towards a company	-.132	.150
Trust towards a company → intended behaviour towards a company	-.063	.588

Table 45. PLS-MGA results on differences between promotion and prevention regulatory focus

PLS-MGA reveals that two paths in the model are significantly different amongst two groups which are the influence of customers' perception of control over website interactions on negative emotions towards a company ($\beta_{difference}$ = -.002, p = .982), and the impact of negative emotions on trust towards a company ($\beta_{difference}$ =.200, p = .049). To support PLS-MGA and to further understand the differences between groups, bootstrapping is performed (Table 46).

	Path Coefficients (Prevention-focus customers)	Path Coefficients (Promotion-focus customers)	*p*-value (Prevention-focus customers)	*p*-value (Promotion-focus customers)
Customers' perception of control over website interactions → trust towards a company	.285	.182	.000	.017
Customers' perception of control over website interactions → positive emotions towards a company	.528	.508	.000	.000
Customers' perception of control over website interactions → negative emotions towards a company	-.270	-.264	.007	.002
Customers' perception of control over website interactions → intended behaviour towards a company	-.001	.072	.995	.330
Positive emotions towards a company → trust towards a company	.455	.380	.000	.000
Negative emotions towards a company → trust towards a company	-.257	-.456	.000	.000
Positive emotions towards a company → intended behaviour towards a company	.223	.129	.005	.111
Negative emotions towards a company → intended behaviour towards a company	-.258	-.129	.000	.089
Trust towards a company → intended behaviour towards a company	.527	.590	.000	.000

Table 46. Bootstrapping results in differences between promotion and prevention regulatory focus.

Bootstrapping results reinforce the findings on statistically significant differences between promotion regulatory focus and prevention regulatory focus on relationships between customers' perception of control over website interactions and negative emotions towards a company, and negative emotions towards a company and trust towards a company. Specifically, for individuals with prevention-focus, customers' perception of control over website interactions is more likely to lead to decreases in negative emotions towards a company, compared to individuals with promotion-focus orientation, This indicates that when customers with prevention-focus orientation have a stronger perception of control over website interactions, they are more likely to experience a decrease in negative emotions towards a company as a result of this, compared to customers with promotion-focus orientation.

On another hand, for individuals with promotion-focus, increases in negative emotions towards a company are more likely to lead to decreases in trust towards a company, compared to individuals with prevention-focus orientation. This finding establishes that when customers with a promotion-focus experience negative emotions towards a company, their trust towards a company is more likely to decrease, compared to customers with a prevention-focus orientation.

To conclude, out of all hypothesised paths in the model, two relationships are found to be significantly different between prevention-focus and promotion-focus individuals. Those are relationships between customers' perception of control over website interactions and negative emotions towards a company, and negative emotions towards a company and trust towards a company. This study already established that there are mediating effects of emotions and trust on relationships between customers' perception of control over website interactions and intended behaviour towards a company, the researcher had also run PLS-MGA to explore if regulatory focus moderates those relationships. Analysis of PLS-MGA reveals that there are no significant differences between promotion-focus customers and prevention-focus customers when assessing mediating effects of trust and emotions, and thus those are not reported further, $p > .001$.

Hence, the next section focuses on testing hypotheses of the moderating effect of regulatory focus on theorised paths in the model.

5.11 Modelling for moderation effect of regulatory focus on relationships in the model

The following section of the results chapter aims to test existing hypotheses based on the moderating effect of regulatory focus. More specifically, the section focuses on assessing whether distinct types of regulatory focus (promotion and prevention) influence the relationships between customers' perception of control over website interactions and trust, positive, and negative emotions and intended behaviour towards a company. Figure 39 shows the relationships investigated.

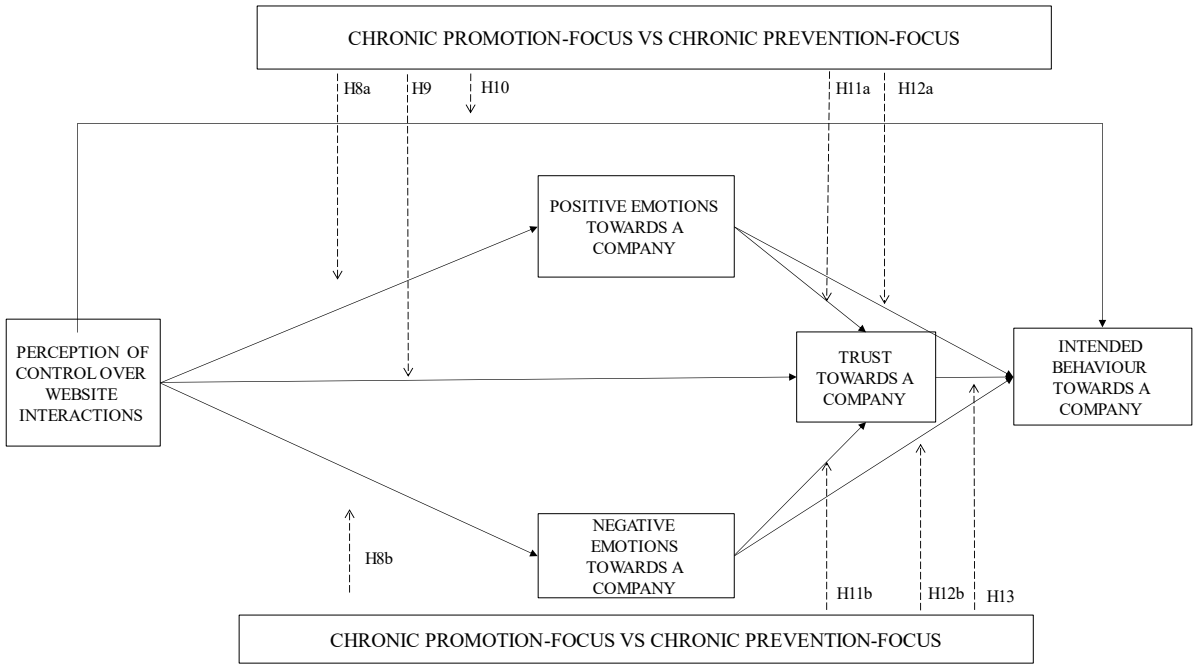


Figure 39. Moderating effect of regulatory focus on relationships between customers' perception of control over website interactions and trust, positive, and negative emotions and intended behaviour towards a company.

For the reader's reference, the results from PLS-MGA analysis are presented below:

Model's paths	**Path Coefficients Differences (Prevention-focus customers – Promotion-focus customers))**	***p*-value**
Customers' perception of control over website interactions → trust towards a company	.112	.266
Customers' perception of control over website interactions → positive emotions towards a company	.015	.857
Customers' perception of control over website interactions → negative emotions towards a company	-.002	.982
Customers' perception of control over website interactions → intended behaviour towards a company	-.068	.479
Positive emotions towards a company → trust towards a company	.073	.374
Negative emotions towards a company → trust towards a company	.199	.049
Positive emotions towards a company → intended behaviour towards a company	.091	.422
Negative emotions towards a company → intended behaviour towards a company	-.132	.150
Trust towards a company → intended behaviour towards a company	-.063	.588

Table 47. PLS-MGA results on differences between promotion and prevention regulatory focus.

5.11.1 Modelling for moderating impact of regulatory focus on relationships in the model (H8a – H8b)

The first moderating effect of regulatory focus to investigate is the relationship between customers' perception of control over website interactions and positive emotions towards a company. The following hypothesis is assessed:

Hypothesis 8a: The effect of customers' perception of control over website interactions on positive emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Table 47 demonstrates that Hypothesis 8a is rejected. Analysis reveals that there are no statistically significant differences between individuals with prevention-focus orientation and individuals with promotion-focus orientation when examining the relationship between customers' perception of control over website interactions and positive emotions towards a company, p = .857. This leads to the conclusion that customers' regulatory focus orientation does not moderate the relationships between customers' perception of control over website interactions and positive emotions towards a company.

After the hypothesis related to customers' perception of control over website interactions and positive emotions has been discussed, the next examined relationships are between customers' perception of control over website interactions and negative emotions towards a company. The following hypothesis is examined:

Hypothesis 8b: The effect of customers' perception of control over website interactions on negative emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Hypothesis 8b is supported. Table 47 shows that there are statistically significant differences between prevention-focus customers and promotion-focus customers when assessing relationships between customers' perception of control over website interactions and negative emotions towards a company p = .982. Further analysis of PLS-MGA bootstrapping demonstrates that, for prevention-focus individuals, the perception of control over website interactions is more likely to lead to decreased negative emotions towards a company (β = -.270, p = .007), compared to promotion-focus individuals (β = -.264, p = .002). Therefore, Hypothesis 8b is supported.

5.11.2 Modelling for moderating impact of regulatory focus on relationships in the model (H9)

Hypothesis 9: The effect of customers' perception of control over website interactions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.

As presented in Table 47 above, Hypothesis 9 is rejected. PLS-MGA reveals that there is no statistically significant difference between customers with promotion-focus orientation and customers with prevention-focus orientation, $p = .266$. Hereafter, it is concluded that regulatory focus does not influence the strength of the relationships between customers' perception of control over website interactions and trust towards a company confirming that no moderating effect of regulatory focus has been found.

5.11.3 Modelling for moderating impact of regulatory focus on relationships in the model (H10)

This research investigates the moderating impact of regulatory focus on relationships between customers' perception of control over website interactions and intended behaviour towards a company. Hence, the following hypotheses are tested:

Hypothesis 10: The effect of customers' perception of control over website interactions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Hypothesis 10 is rejected. Specifically, analysis of PLS-MGA establishes that there are no statistically significant differences between customers with prevention-focus and customers with promotion-focus when examining the relationships between customers' perception of control over website interactions and intended behaviour towards a company, $p = .479$. This indicates that there is no moderating effect of regulatory focus on relationships between customers' perception of control over website interactions and intended behaviour towards a company.

5.11.4 Modelling for moderating impact of regulatory focus on relationships in the model (H11a-H11b)

This section focuses on testing the hypothesis of moderating the impact of regulatory focus on relationships between positive emotions and negative emotions towards a company and trust towards a company. Firstly, the following hypothesis is under investigation:

Hypothesis 11a: The effect of customers' positive emotions on trust towards a company is stronger for promotion-focus customers than for prevention-focus customers.

Based on the results of the data analysis, hypothesis 11a is rejected. Specifically, Table 47 demonstrates that there is no statistically significant difference between customers with regulatory prevention and regulatory promotion focus when examining relationships between positive emotions towards a company and trust towards a company, p = .374. Thus, it is concluded that regulatory focus does not moderate the relationships between positive emotions and trust towards a company.

Next, the moderating effect of regulatory focus on relationships between negative emotions towards a company and trust towards a company is examined. The following hypothesis is tested:

Hypothesis 11b: The effect of customers' negative emotions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Hypothesis 11b is rejected, but the reverse relationship is supported by PLS-MGA analysis. Analysis of PLS-MGA ($p_{(pls\text{-}mga)}$ = .049) demonstrates that for promotion-focus customers decreases in negative emotions towards a company are more likely to lead to increases in trust towards a company, ($\beta_{promotion}$ = -.456, p < .001), compared to customers with prevention-focus, ($\beta_{prevention}$ = -.257, p < .001). Thus, original hypothesis 11b is rejected, but the reverse relationship finding is discussed in the next chapter.

The moderating effect of regulatory focus on relationships between customers' emotions and intended behaviour towards a company is discussed next.

5.11.5 Modelling for moderating impact of regulatory focus on relationships in the model (H12a-H12b)

After relationships between customers' emotions and intended behaviour towards a company are discussed, this section focuses on testing hypotheses of relationships between positive and negative emotions towards a company and intended behaviour towards a company. Particularly, the hypothesis is as follows tested:

Hypothesis 12a: The effect of customers' positive emotions on intended behaviour towards a company is stronger for promotion-focus customers than for prevention-focus customers.

Analysis of PLS-MGA rejects Hypothesis 12a. Analysis reveals that there is no statistically significant difference between individuals with promotion focus and individuals with prevention focus when assessing relationships between positive emotions towards a company and intended behaviour towards a company, $p = .422$. This indicates that customers' regulatory focus does not moderate the relationships between positive emotions and intended behaviour towards a company.

Next, the moderating effect of regulatory focus on relationships between negative emotions and intended behaviour towards a company is assessed. Specifically, the following hypothesis is examined:

Hypothesis 12b: The effect of customers' negative emotions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Hypothesis 12b is rejected. Table 47 demonstrates that there are no statistically significant differences between individuals with a promotion focus and individuals with a prevention focus when investigating the relationships between negative emotions and intended behaviour towards a company, $p = .150$. This leads to the conclusion that regulatory focus does not moderate the examined relationships.

5.11.6 Modelling for moderating impact of regulatory focus on relationships in the model (H13)

In this section, the moderating effects of regulatory focus on relationships between trust towards a company and intended behaviour towards a company are investigated. The hypothesis is as follows:

Hypothesis 13: The effect of customers' trust on intended behaviour towards a company is stronger for a) prevention-focus customers than for b) promotion-focus customers.

Hypothesis 13 is rejected. Table 47 establishes that there are no statistically significant differences between prevention-focus and promotion-focus customers when examining the relationships between trust towards a company and intended behaviour towards a company, p = .588. Therefore, it is concluded that there is no moderating effect of regulatory focus on relationships between trust towards a company and intended behaviour towards a company.

5.12 Hypotheses overview

The last section of the data analysis chapters aims to provide an overview of the hypotheses tested in this study. Firstly, it acknowledges hypotheses testing of the structural model. Next, hypotheses based on the moderating effect of regulatory focus are presented.

Hypotheses	***β***	**SD**	***t* values**	***p* values**	R^2	f^2	**Effect size**	**Results**
Hypothesis 1a: Customers' increased perception of control over website interactions leads to higher levels of positive emotions towards a company.	.521	.042	12.154	.000	.266	.363	Large	**Supported**
Hypothesis 1b: Customers' decreased perception of control over website interactions leads to lower levels of negative emotions towards a company.	-.278	.066	4.154	.000	.075	.081	Small	**Supported**
Hypothesis 2: Customers' increased perception of control over website interactions leads to higher levels of trust towards a company.	.242	.053	4.583	.000	.534	.087	Small	**Supported**
Hypothesis 3: Customers' increased perception of control over website interactions leads to increases in intended behaviour towards a firm.	.033	.048	.656	.512	.638	.002	No effect	**Not supported**
Hypothesis 4a: Customers' positive emotions lead to higher levels of trust towards a company.	.414	.044	9.514	.000	.534	.273	Medium-to-large	**Supported**
Hypothesis 4b: Customers' negative emotions lead to lower levels of trust towards a company.	-.338	.056	6.021	.000	.534	.226	Medium-to-large	**Supported**
Hypothesis 5a: Customers' positive emotions lead to increases in customers' intended behaviour towards a company.	.176	.056	3.134	.002	.638	.050	Small	**Supported**
Hypothesis 5b: Customers' negative emotions lead to decreases in customers' intended behaviour towards a company.	-.200	.043	4.679	.000	.638	.084	Small	**Supported**
Hypothesis 6: Customers' trust leads to increases in customers' intended behaviour towards a company.	.554	.057	9.774	.000	.638	.399	Large	**Supported**
Mediating effects								
Hypotheses	***β***		***t* values**	***p* values**	**Hypothesis**			
Hypothesis 7: Trust, positive and negative emotions fully mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company.	.454		1.781	.001	**Supported**			

Table 48. Structural model's hypotheses overview.

Table 48 provides an overview of the hypotheses tested in this study. As presented, 9 out of 10 hypotheses for the main paths in the structural model are supported. Particularly, this study

found that customers' perception of control over website interactions has a positive impact on positive emotions towards a company, negative emotions towards a company, and trust towards a company. However, this study has not found a direct influence of customers' perception of control over website interactions on intended behaviour towards a company, but through the mediating role of customers' emotions and trust towards a company.

Furthermore, positive emotions are found to positively increase trust towards a company, whereas negative emotions are found to negatively decrease trust towards a company. Moreover, a similar effect is observed on relationships between positive emotions and intended behaviour towards a company, and negative emotions and intended behaviour towards a company. Lastly, trust is identified as a key driver of intended behaviour.

The next sets of hypotheses related to the theoretical foundation of this study which posits that customers' perception of control over website interactions has a different impact on customers' emotions, trust, and intended behaviour towards a company depending on customers' regulatory focus orientation. Table 49 provides an overview of the hypotheses tested.

Hypotheses	$B_{(pls\text{-}mga)}$	*p* values	Results
Hypothesis 8a: The effect of customers' perception of control over website interactions on positive emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.	.015	.857	Not supported
Hypothesis 8b: The effect of customers' perception of control over website interactions on negative emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.	-.002	.982	**Supported**
Hypothesis 9: The effect of customers' perception of control over website interactions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.	.112	.266	Not supported
Hypothesis 10: The effect of customers' perception of control over website interactions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.	-.068	.479	Not supported
Hypothesis 11a: The effect of customers' positive emotions on trust towards a company is stronger for promotion-focus customers than for prevention-focus customers.	.073	.374	Not supported
Hypothesis 11b: The effect of customers' negative emotions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.	.199	.049	**Rejected, but PLS-MGA statistically significant**
Hypothesis 12a: The effect of customers' positive emotions on intended behaviour towards a company is stronger for promotion-focus customers than for prevention-focus customers.	-.132	.150	Not supported
Hypothesis 12b: The effect of customers' negative emotions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.	-.063	.588	Not supported
Hypothesis 13: The effect of customers' trust on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.	.091	.422	Not supported

Table 49. Moderating impact of regulatory focus – hypotheses overview.

As described in Table 49 above, one hypothesis is supported, and another one is rejected but is statistically significant about regulatory focus moderating the relationships in the structural

model. More specifically, this study has found that there are statistically significant differences between promotion-focus and prevention-focus customers when examining the relationships between customers' perception of control over website interactions and negative emotions towards a company, and the relationships between customers' negative emotions towards a company and trust towards a company. For customers with prevention-focus orientation, customers' perception of control leads to stronger decreases in negative emotions towards a company, compared to promotion-focus individuals. On another hand, negative emotions towards a company lead to stronger decreases in trust towards a company for promotion-focus customers, compared to customers with prevention-focus.

The underlying theoretical meanings for the results are discussed in the next chapter of this thesis.

5.13 Conclusion

To conclude, this chapter described the results of the quantitative stage of this study with the assistance of the structural equation modelling of partial least squares (PLS-SEM). Firstly, data has been examined and cleaned, followed by analysis of measurement and structural models. Next, mediation effects were examined followed by analysis of control groups. Finally, moderation analysis was presented. The chapter finished by evaluating relevant hypotheses.

The next chapter of this thesis focuses on addressing the findings and discussing them with the help of existing literature and theory.

6 Discussion

Following data analysis in the previous chapter, empirical testing of the research model brings an understanding of the role of regulatory focus affecting the relationships between customers' perception of control over website interactions, customers' emotions, trust and intended behaviour towards a company. At this stage, it is crucial to discuss how does empirical results of this study align with the existing literature and add to the body of knowledge. Hence, this chapter has two main goals. Firstly, it aims to provide an in-depth analysis of the alignment of data analysis results with existing literature (Section 6.2-6.4). Secondly, the chapter focuses on a critical discussion of the key theoretical and practical contributions of this PhD thesis (Section 6.5).

To do so, this chapter starts with evaluating findings in line with existing literature related to the main research model such as relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company. Following this, the moderating role of regulatory focus on relationships in the model is reviewed. Lastly, the researcher moves on to critically reviewing the findings and establishing key contributions of this thesis.

6.1 Introduction

As stated in Chapter 1, this study comes to life from the researcher's curiosity about why different people have different reactions to the same website experiences when buying a mobile phone online. Taking this forward into existing literature in the e-commerce field, the researcher then identifies a literature gap in investigating how customers' perception of control over website interactions influences customers' outcomes towards a company. The analysis of existing literature further shapes this research question and highlights the importance of examining customers' emotions, trust, and intended behaviour towards a company as a response to perceptions of control online. Moreover, the researcher determines that out of all customers' personality characteristics impacting the proposed relationships, customers' regulatory focus receives the least attention. Hence, this PhD thesis aims to contribute to knowledge by investigating how customers' perception of control over website interactions shapes customers' emotions, and as a result, drives customers' trust and intended behaviour towards a company as well as establishing the role of regulatory focus orientations influencing those relationships. To achieve this research's aim, the researcher critically reviews and

discusses the empirical findings presented in Chapter 5. Building upon the statistical analysis in Chapter 5, this study confirms nine of the hypotheses linked to the relationships in the main model and two hypotheses linked to the moderating effect of regulatory focus (Figure 40).

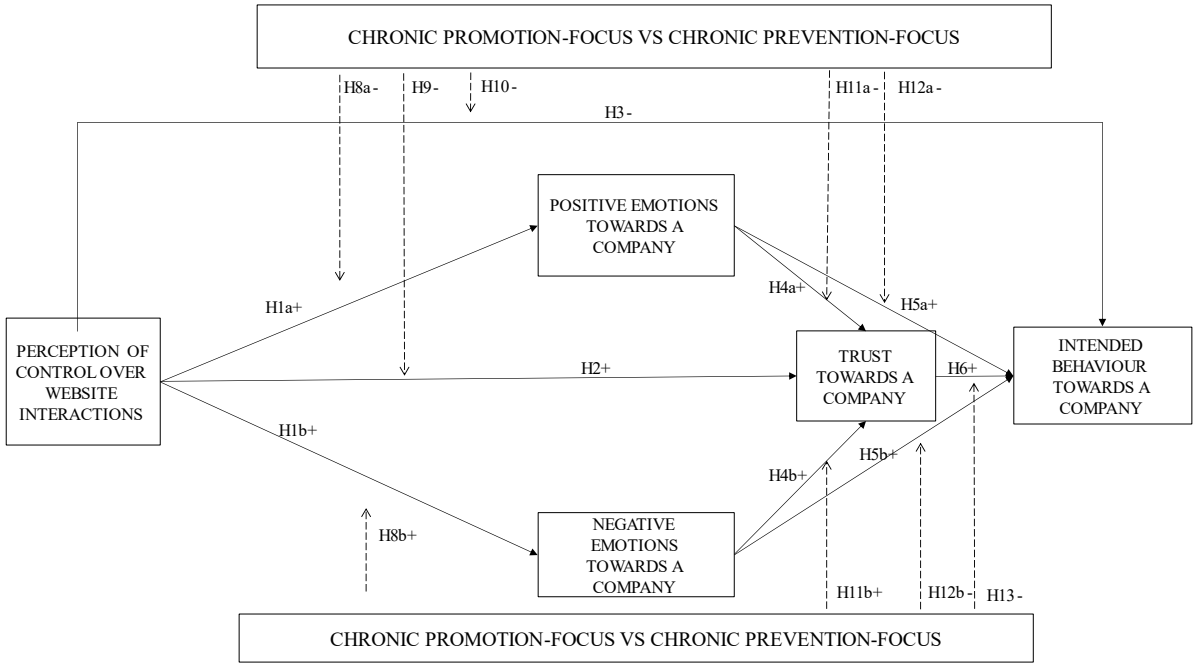


Figure 40. This thesis research model.

This research suggests that customers' perception of control over website interactions shapes customers' emotions, which in turn drives customers' trust and intended behaviour towards a company. Furthermore, the research establishes that customers' regulatory focus moderates the relationships between customers' perception of control over website interactions and negative emotions, as well as between customers' negative emotions and trust towards a company.

To achieve this chapter's goal, the next sub-section discusses the results related to the influence of customers' perception of control over website interactions on customers' emotions and trust, followed by reviewing the role of customers' emotions and trust on relationships between customers' perception of control over website interactions and intended behaviour towards a company.

6.2 Research findings – discussing hypotheses H1-H2

Building upon the analysis in Chapter 5, this research establishes that customers' perception of control over website interactions influences customers' emotions and trust towards a company. Table 50 below provides a summary of findings related to the research hypothesis. Figure 41 below highlights the relevant relationship in the model.

Hypotheses	Results
Hypothesis 1a: Customers' increased perception of control over website interactions leads to higher levels of positive emotions towards a company.	**Supported.** Drawing upon analysis in Chapter 5, this hypothesis is supported. The relationship between customers' perception of control over website interactions and customers' positive emotions towards a company is statistically significant, $p < .001$, $\beta = .521$. This indicates that customers' perception of control over website interactions leads to increases in customers' positive emotions towards a company.
Hypothesis 1b: Customers' decreased perception of control over website interactions leads to lower levels of negative emotions towards a company.	**Supported.** Drawing upon analysis in Chapter 5, this hypothesis is supported. The relationship between customers' perception of control over website interactions and customers' negative emotions towards a company is statistically significant, $p < .001$, $\beta = -.278$. This indicates that customers' perception of control over website interactions leads to decreases in negative emotions towards a company.
Hypothesis 2: Customers' increased perception of control over website interactions leads to higher levels of trust towards a company.	**Supported.** Drawing upon analysis in Chapter 5, this hypothesis is supported. The relationship between customers' perception of control over website interactions and customers' trust towards a company is statistically significant, $p < .001$, $\beta = .242$. This indicates that customers' perception of control over website interactions positively influences customers' trust towards a company.

Table 50. Summary of research hypotheses related to understanding the relationships between customers' perception of control over website interactions and customers' emotions and trust towards a company.

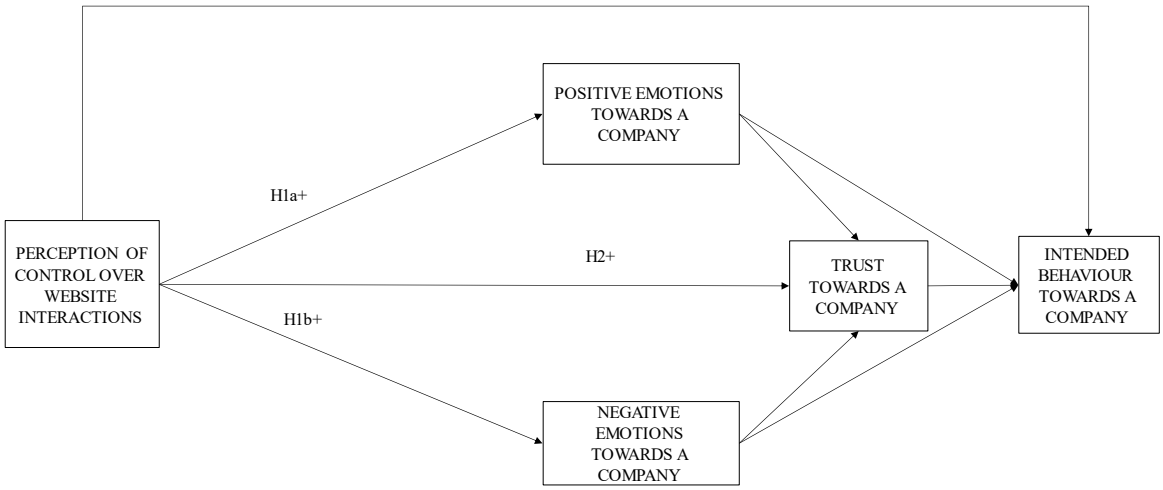


Figure 41. Hypotheses under discussion are highlighted in the research model.

Hypothesis 1a: Customers' increased perception of control over website interactions leads to higher levels of positive emotions towards a company.

Hypothesis 1b: Customers' decreased perception of control over website interactions leads to lower levels of negative emotions towards a company.

As discussed in Chapter 5, both hypotheses are supported. Specifically, this study establishes that customers' perception of control over website interactions positively shapes customers' emotions towards a company. Building upon the literature review conducted in Chapter 2, these findings are aligned with the existing literature. Existing research indicates that customers' perception of control leads to higher levels of positive emotions and lower levels of negative emotions (Rose *et al.*, 2012; Manganari *et al.*, 2014; Kirk *et al.*, 2015; Zhang and Mao, 2020). The explanation of these findings lies within cognitive appraisal theory, which posits that customers' external environments shape customers emotions (Folkman *et al.*, 1986; Lazarus, 1991a). Specifically, these results suggest that when customers perceive a high level of control over website interactions, they appraise their experience favourably which in turn positively affects their emotions towards a company. These findings contribute to the existing literature by recognising that customers' perception of control online has direct associations with customers' emotions (Lee and Turban, 2001; Bart *et al.*, 2005; Collier and Sherrell, 2010; Manganari *et al.*, 2014).

Hypothesis 2: Customers' increased perception of control over website interactions leads to higher levels of trust towards a company.

Data analysis in Chapter 5 shows that customers' perception of control over website interactions positively impacts customers' trust towards a company. Building upon existing literature, this finding reveals that customers use the perception of control as a proxy for establishing trust towards a company (Bart *et al.*, 2005; Collier and Sherrell, 2010). This indicates that if customers perceive that they have control over website interactions, they are more likely to trust a company. This result is in line with the existing literature in the field of online consumer behaviour (Lee and Turban, 2001; Bart *et al.*, 2005; Collier and Sherrell, 2010; Manganari *et al.*, 2014). Hereafter, the results of positive relationships between customers' perception of control over website interactions and trust towards a company confirm the existing knowledge. This is an important addition to the existing knowledge as it validates the role of customers' perception of control over website interactions in driving customers' trust towards a company in the e-commerce domain.

Further discussion on the implications of Hypotheses 1-2 can be found in Chapter 6, Section 6.5.1. Next, research findings linked to the role of customers' emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company are presented.

6.3 Research findings – reviewing hypotheses H3-H7

This sub-section explores the findings related to understanding the role of customers' emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company. This study doesn't find direct relationships between customers' perception of control over website interactions and intended behaviour towards a company. However, this research reveals that customers' perception of control over website interactions influences intended behaviour towards a company through the mediating role of emotions and trust. Table 51 provides a summary of the hypotheses under review. Figure 42 emphasises the relationships evaluated in the research model.

Hypothesis 3: Customers' increased perception of control over website interactions leads to increases in intended behaviour towards a firm.	**Not supported.** Drawing upon analysis in Chapter 5, this hypothesis is not supported. The relationships between customers' perception of control over website interactions and customers' intended behaviour towards a company are not statistically significant, $p > .05$, $\beta = .033$. This indicates that customers' perception of control over website interactions does not directly influence customers' intended behaviour towards a company.
Hypothesis 4a: Customers' positive emotions lead to higher levels of trust towards a company.	**Supported.** Drawing upon analysis in Chapter 5, this hypothesis is supported. The relationship between customers' positive emotions and customers' trust towards a company is statistically significant, $p < .001$, $\beta = .414$. This indicates that customers' positive emotions drive customers' trust towards a company.
Hypothesis 4b: Customers' negative emotions lead to lower levels of trust towards a company.	**Supported.** Drawing upon analysis in Chapter 5, this hypothesis is supported. The relationship between customers' negative emotions and customers' trust towards a company is statistically significant, $p < .001$, $\beta = -.338$. This indicates that customers' negative emotions decrease trust towards a company.
Hypothesis 5a: Customers' positive emotions lead to increases in customers' intended behaviour towards a company.	**Supported.** Drawing upon analysis in Chapter 5, this hypothesis is supported. The relationship between customers' positive emotions and customers' intended behaviour towards a company is statistically significant, $p < .001$, $\beta = .172$. This indicates that customers' positive emotions positively influence customers' intended behaviour towards a company.
Hypothesis 5b: Customers' negative emotions lead to decreases in customers' intended behaviour towards a company.	**Supported.** Drawing upon analysis in Chapter 5, this hypothesis is supported. The relationship between customers' negative emotions and customers' intended behaviour towards a company is statistically significant, $p < .001$, $\beta = -.2$. This indicates that customers' negative emotions decrease customers' intended behaviour towards a company.
Hypothesis 6: Customers' trust leads to increases in customers' intended behaviour towards a company.	**Supported.** Drawing upon analysis in Chapter 5, this hypothesis is supported. The relationship between customers' trust and customers' intended behaviour towards a company is

	statistically significant, $p < .001$, $\beta = .554$. This indicates that customers' trust positively drives intended behaviour towards a company.
Hypothesis 7: Trust, positive and negative emotions fully mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company.	**Supported.** Drawing upon analysis in Chapter 5, this hypothesis is supported. The mediating effect of trust, positive and negative emotions on relationships between customers' perception of control over website interactions and intended behaviour towards a company is found to be statistically significant, $p < .001$. This indicates that customers' perception of control over website interactions impacts intended behaviour towards a company through mediating constructs of customers' emotions and trust.

Table 51. Summary of research hypotheses related to understanding the relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company.

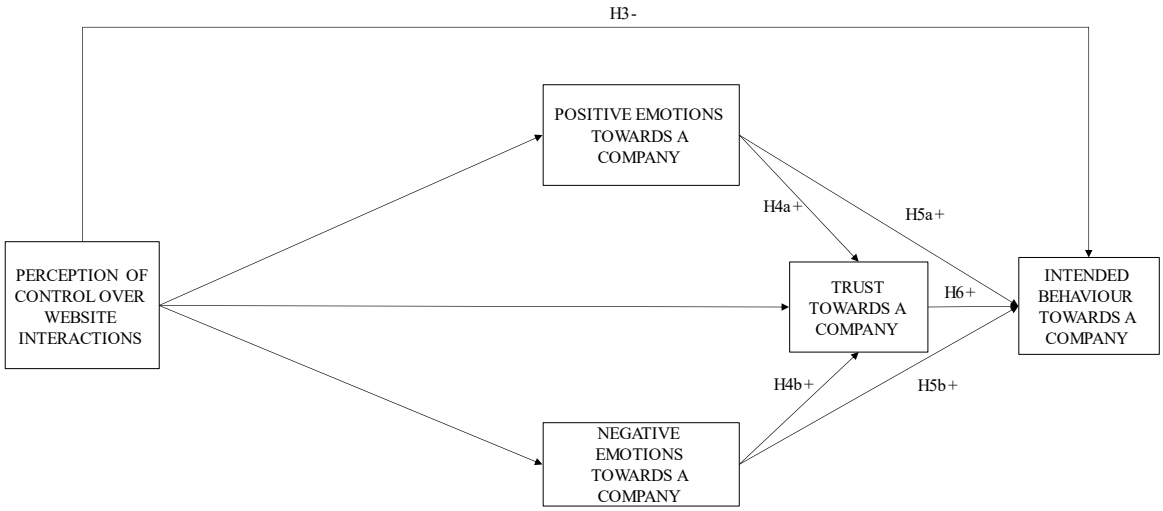


Figure 42. Hypotheses under discussion are highlighted in the research model.

Hypothesis 3: Customers' increased perception of control over website interactions leads to increases in intended behaviour towards a firm.

Data analysis from Chapter 5 doesn't support hypothesis 3. This is an interesting finding as it challenges the existing literature which positions that customers' perception of control drives intended behaviour (Ajzen, 1991; Pavlou and Fygenson, 2006) (Chapter 2). Findings from this study postulate that customers' perception of control over website interactions doesn't directly

lead to intended behaviour towards a company. Hereafter, the empirical results of this research join another stream of online service encounters research which positions that the perception of control over website interactions influences intended behaviour towards a company through affecting customers' emotions and trust first.

However, as this research did not adopt the HCI perspective, this study lacks an understanding of whether customers' perception of control would lead to intended behaviour towards a website, rather than intended behaviour towards a company (Van der Heijden, 2003; Brengman and Karimov, 2012). By investigating the impact of the perception of control online on intentions towards a website, and subsequent intended behaviour towards a company, these findings could have been far more reaching.

Nonetheless, in the previous sections, this research establishes that customers' perception of control online shapes customers' emotions and drives trust towards a company. This means that whilst customers' perception of control over website interactions might not transform into intended behaviour towards a company, it might still influence intended behaviour through mediating roles of emotions and trust. Thus, this study adds to the existing literature by empirically supporting the stream of research which states that customers' perception of control over website interactions has a stronger influence on intended behaviour through mediating constructs of emotions or trust (Collier and Sherrell, 2010; Manganari *et al.*, 2014; Rose *et al.*, 2012). More discussion is to follow in Chapter 6, Section 6.5.2.

To further unlock complex relationships in the research model, the relationships between customers' emotions, trust, and intended behaviour are discussed next.

Hypothesis 4a: Customers' positive emotions lead to higher levels of trust towards a company.

Hypothesis 4b: Customers' negative emotions lead to lower levels of trust towards a company.

Analysis conducted in Chapter 5 indicates that customers' positive emotions increase trust towards a company, whereas customers' negative emotions decrease trust towards a company. These findings are in line with existing literature which suggests that customers' positive emotions positively influence customers' trust, whilst negative emotions negatively impact customers' trust towards a company (Williams, 2001; Dunn and Schweitzer, 2005; Andersen and Kumar, 2006; Rose *et al.*, 2012). Whilst the influence of customers' positive emotions on

trust has been established in the literature, some studies did not find a significant relationship between customers' negative emotions and trust towards a company (Urueña and Hidalgo, 2016). This study further contributes to existing research by providing empirical evidence that customers' negative emotions hinder trust towards a company, thereby confirming the impact of emotions on trust towards a company. This in turn indicates that by influencing customers' emotions during website interactions, companies can increase trust towards a company.

Building upon existing literature, trust is not the only construct being affected by customers' emotions online. Thus, next relationships between customers' emotions and intended behaviour towards a company are evaluated.

Hypothesis 5a: Customers' positive emotions lead to increases in customers' intended behaviour towards a company.

Hypothesis 5b: Customers' negative emotions lead to decreases in customers' intended behaviour towards a company.

Results reveal that customers' positive emotions increase customers' intended behaviour towards a company, whilst customers' negative emotions decrease customers' intended behaviour towards a company. Findings confirm the crucial role of customers' emotions in predicting intended behaviour towards a company. Specifically, literature already recognises emotions as drivers of customer behaviour both offline and online (Romani *et al.*, 2012; Jayasimha and Srivastava, 2017). Existing research establishes that positive emotions act as stimuli for behaviour, whereas negative emotions lead to decreases in behaviours (Williams and Aaker, 2002). These results contribute empirically to the existing knowledge by highlighting the role of emotions in influencing customers' behaviour during website interaction. This in turn adds to the stream of research recognising that positive emotions increase intended behaviour, whereas negative emotions decrease intended behaviour towards a company.

So far, this study establishes that customers' perception of control over website interactions impacts customers' emotions and trust as well as recognises the imperative role of customers' emotions in driving trust and intended behaviour towards a company online. To further discuss complex relationships in the research model, the researcher reviews the role of trust in driving intended behaviour towards a company.

Hypothesis 6: Customers' trust leads to increases in customers' intended behaviour towards a company.

Data analysis conducted in Chapter 5 supports Hypothesis 6. This finding is in line with existing literature which recognises trust as one of the main predictors of online intended behaviour towards a company (Gefen *et al.*, 2003a; Gefen and Straub, 2003; Lin, 2007; Hsieh and Liao, 2011). Particularly, in their revolutionary study, Gefen *et al.* (2003b) establish that trust drives intended behaviour online. Gefen's study then became a foundation for future research in the e-commerce domain. Thus, the findings of this research are aligned with multiple existing literature supporting the significant role of trust in predicting customer behaviour online.

Whilst the relationships between customers' emotions, trust and intended behaviour towards a company are significant, this study did not confirm statistically significant relationships between customers' perception of control over website interactions and intended behaviour. Thereby, the next sub-section focuses on uncovering the mediating role of customers' emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company.

Hypothesis 7: Trust, positive and negative emotions fully mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company.

As previously discussed, this research doesn't support hypothesis three which postulates that customers' perception of control over website interactions drives intended behaviour towards a company (Figure 43). However, through analysis of multiple mediations, this study determines that customers' perception of control impacts intended behaviour towards a company through the mediating role of customers' emotions and trust.

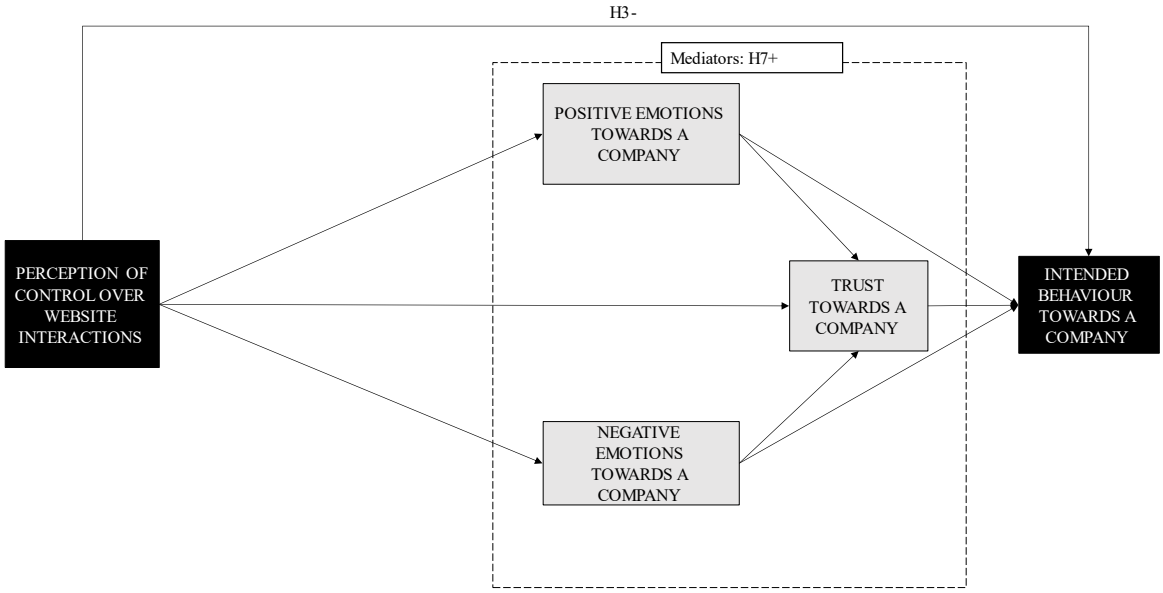


Figure 43. Research model of this study highlighting the mediating effect of customers' positive and negative emotions, customers' trust on relationships between customers' perception of control over website interactions and intended behaviour towards a company.

These findings are significant as they add to existing knowledge in several ways. Firstly, it contributes to the body of knowledge by empirically testing multiple mediations of customers' emotions and trust. Secondly, it adds to existing research by uncovering that customers' perception of control impacts intended behaviour towards a company by mediating the construct of customers' emotions and trust (Collier and Sherrell, 2010; Rose *et al.*, 2012). This finding joins the stream of research which argues that the effect of customers' perception of control over website interactions is stronger through mediating links of emotions and trust (Lazarus, 1991a; Bart *et al.*, 2005; Collier and Sherrell, 2010; Beaudry and Pinsonneault, 2010; Rose *et al.*, 2012; Romani *et al.*, 2012; Morgan-Thomas and Veloutsou, 2013; Mavlanova *et al.*, 2016; Jayasimha and Srivastava, 2017; Zhang and Mao, 2020). Whilst the mediating role of trust between relationships of customers' perception of control and intended behaviour is well-established in the literature, less is known about the impact of emotions on the same relationships (Rose *et al.*, 2012). Hereafter, these findings close the existing literature gap by unpacking the complex relationships between customers' perception of control over website interactions, customers' emotions, trust and intended behaviour towards a company. This study addresses the gap by determining that customers' perception of control over website interactions does not convert directly into intended behaviour towards a company but

influences intentions by affecting customers' emotions and trust towards a company. Further discussion on this can be found in Chapter 6, Section 6.5.2.

Once the researcher unpacked the complex relationship between customers' perception of control over website interactions, customers' emotions, trust and intended behaviour, the next sub-section of the discussion chapter aims to review the findings linked to the moderating role of regulatory focus.

6.4 Research findings – examining hypotheses H8-H13

The following sub-section of the thesis focuses on discussing findings related to the moderating effect of regulatory focus on relationships in the research model (Figure 44). Building upon the literature review in Chapter 2 and Chapter 3, the researcher hypothesises that regulatory focus moderates the relationships between customers' perception of control over website interactions, emotions, trust and intended behaviour towards a company. In other words, the researcher theorises that the effects of customers' perception of control over website interactions on customers' emotions, trust, and intended behaviour differ depending on customers' promotion or prevention regulatory focus orientation.

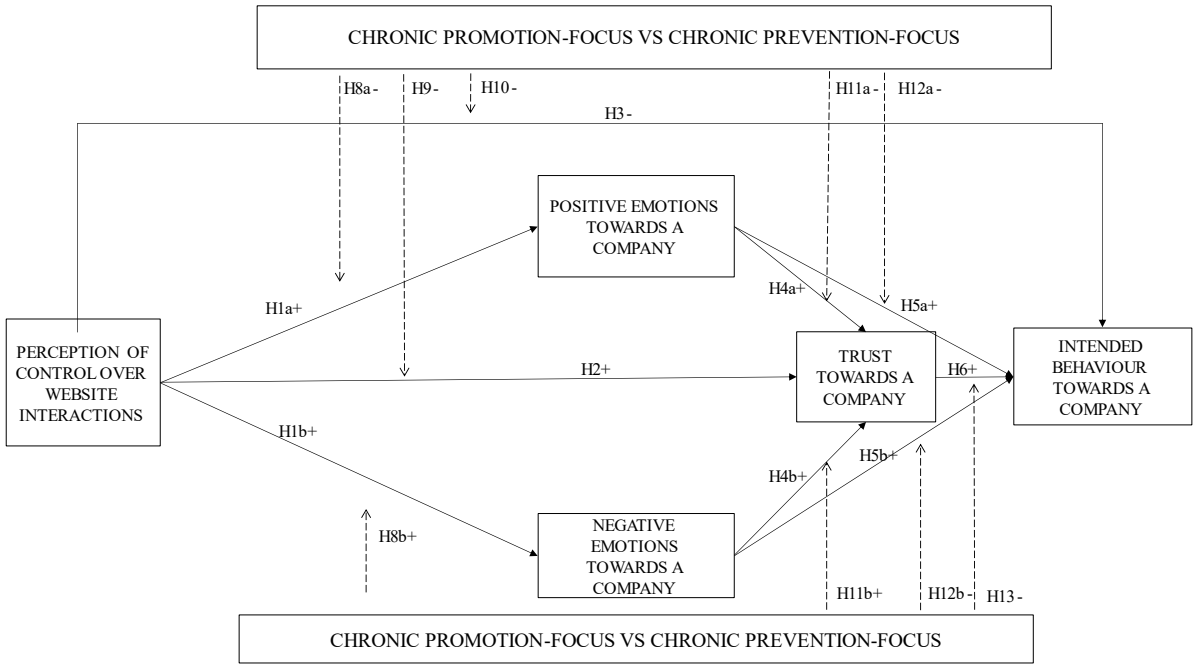


Figure 44. The moderating effect of regulatory focus on relationships between customers' perception of control over website interactions, customers' emotions, trust and intended behaviour towards a company.

However, building upon the analysis conducted in Chapter 5, regulatory focus moderates only two relationships in the model (Table 52). Specifically, this study finds that regulatory focus moderates the relationships between customers' perception of control over website interactions and negative emotions towards a company (Hypothesis 8b). Additionally, findings show that regulatory focus moderates the relationships between customers' negative emotions and trust, but the effect is reversed to the original hypothesis (Hypothesis 11b).

Hypothesis 8a: The effect of customers' perception of control over website interactions on positive emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Not supported, $p_{(PLS\text{-}MGA)} > .05$**
Hypothesis 8b: The effect of customers' perception of control over website interactions on negative emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Supported, $p_{(PLS\text{-}MGA)} = .982$**
Hypothesis 9: The effect of customers' perception of control over website interactions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Not supported, $p_{(PLS\text{-}MGA)} > .05$**
Hypothesis 10: The effect of customers' perception of control over website interactions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Not supported, $p_{(PLS\text{-}MGA)} > .05$**
Hypothesis 11a: The effect of customers' positive emotions on trust towards a company is stronger for promotion-focus customers than for prevention-focus customers.	**Not supported, $p_{(PLS\text{-}MGA)} > .05$**
Hypothesis 11b: The effect of customers' negative emotions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Rejected, but PLS-MGA statistically significant, $p_{(PLS\text{-}MGA)} = .049$**
Hypothesis 12a: The effect of customers' positive emotions on intended behaviour towards a company is stronger for promotion-focus customers than for prevention-focus customers.	**Not supported, $p_{(PLS\text{-}MGA)} > .05$**
Hypothesis 12b: The effect of customers' negative emotions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Not supported, $p_{(PLS\text{-}MGA)} > .05$**

Hypothesis 13: The effect of customers' trust on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Not supported, $p_{(PLS\text{-}MGA)} > .05$**

Table 52. Results of the moderating effect of regulatory focus on relationships in the research model.

Taken together, this research discovers that there is a statistically significant difference between customers with promotion-focus or prevention-focus only when assessing the relationships between customers' perception of control over website interactions and negative emotions towards a company, as well as the relationships between negative emotions and trust towards a company. This means that customers' regulatory focus doesn't moderate all the relationships in the research model and the rest of the hypotheses are not supported (Hypothesis 8a, 9, 10, 11a, 12-13).

Whilst the rest of the sub-section aims to provide an in-depth discussion of two statistically significant hypotheses, it is essential to address the reasons why the remaining hypotheses have not been supported. As the researcher built the hypotheses based on the existing literature and research (Chapter 2 & Chapter 3), reasons for rejecting hypotheses typically lie within methodological or empirical justifications (Saunders *et al.*, 2019) . From the methodological perspective, reasons for unsupported hypotheses could lie within research design limitations or sample size and statistical power (Hair *et al.*, 2017; Saunders *et al.*, 2019). More specifically, this research had to adopt a survey research design rather than an experiment research design which is typically employed in the psychology field where the notion of regulatory focus originates (Higgins, 1998). The chosen research design could have potentially been one of the reasons why the remaining hypotheses have not been supported (Martin and Bridgmon, 2012).

Alternatively, this study had a limited sample size decreasing the likelihood of statistical power and increasing the likelihood of Type 2 errors which could lead to unsupported hypotheses (Hair *et al.*, 2012). From an empirical perspective, reasons for unsupported hypotheses could originate from contextual factors and sample characteristics. Particularly, this study focuses on Vodafone customers only, limiting to the specific population under investigation. Furthermore, the literature argues that regulatory focus could be chronic or situationally induced (Haws *et al.*, 2010). Although the researcher built a strong foundation on adopting chronic regulatory focus measures in this study, there is still a probability that customers' regulatory focus could have been situationally induced which might have affected the final results.

Nonetheless, this research establishes that customers' regulatory focus moderates the relationships between customers' perception of control over website interactions and negative

emotions, as well as relationships between negative emotions and trust towards a company. Thus, the researcher moves on to discuss the implications of those findings (Figure 45 & Table 53).

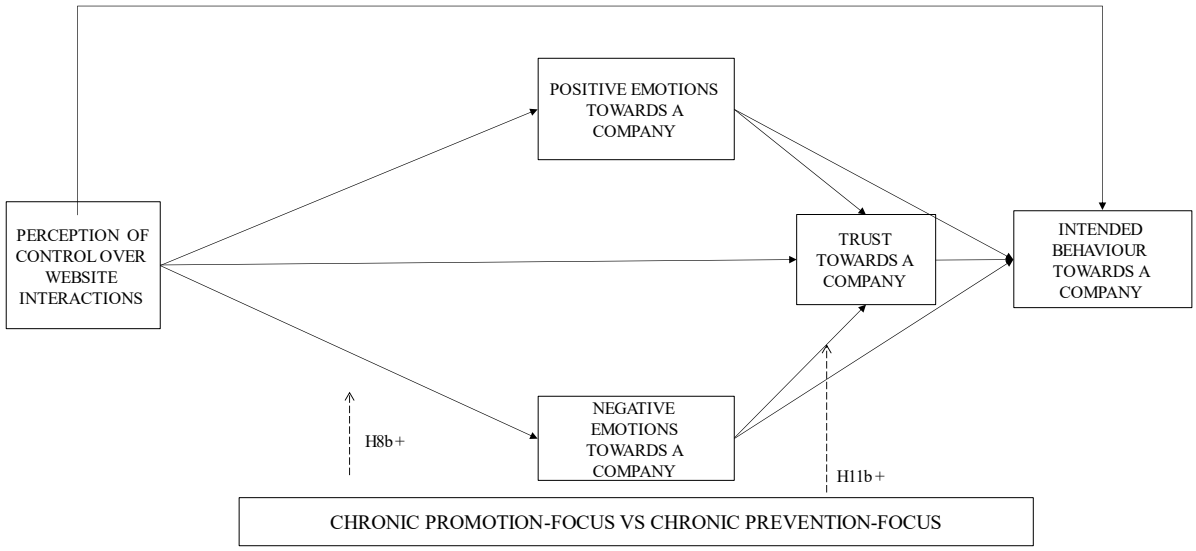


Figure 45. Research model: supported hypotheses related to moderating effect of regulatory focus.

Hypothesis 8b: The effect of customers' perception of control over website interactions on negative emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Supported.** Drawing upon analysis in Chapter 5, this hypothesis is supported. There are statistically significant differences between customers with promotion-focus and customers with prevention-focus orientations when assessing the relationships between customers' perception of control over website interactions and negative emotions towards a company, $p_{(PLS\text{-}MGA)} = .018$. This indicates that customers' regulatory focus moderates this relationship in the model.
Hypothesis 11b: The effect of customers' negative emotions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Not supported, but the moderation effect is significant.** Drawing upon the analysis in Chapter 5, this hypothesis is not supported, but analysis shows a statistically significant difference between customers' promotion-focus and customers' prevention-focus orientations when assessing the relationships between customers' negative emotions and trust towards a company, $p_{(PLS\text{-}MGA)} = .049$. This indicates that customers' regulatory focus moderates this relationship in the model.

Table 53. Findings overview of supported hypotheses related to moderating effect of regulatory focus.

Hypothesis 8b: The effect of customers' perception of control over website interactions on negative emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Building upon the literature review in Chapter 2, these results confirm the important role of regulatory focus in the context of online consumer behaviour. From a theoretical perspective, these findings extend the existing literature by highlighting how regulatory focus orientations affect the relationships between customers' perception of control over website interactions and customers' emotions towards a company (Avnet and Higgins, 2006; Dodoo and Wu, 2021).

Building upon existing research in the regulatory focus field, these findings are in line with the notion of prevention-focus orientation (Crowe and Higgins, 1997; Arnold and Reynolds, 2009; Das, 2016). Specifically, prevention-focus individuals typically focus on avoiding negative outcomes and minimising losses (Higgins *et al.*, 2001; Freitas and Higgins, 2002; Avnet and Higgins, 2006). Therefore, the researcher argues that the perception of control over website interactions acts as a proxy of security and avoidance of negative outcomes for prevention-focus customers, and this is why they experience a stronger decrease in negative emotions towards a company (Das, 2016; Thongpapanl *et al.*, 2018).

The difference between customers with prevention-focus and customers with promotion-focus emphasises that the impact of perceived control online on negative emotions towards a company is not unanimous for all and it is important to acknowledge customers' differences. This contributes to the existing body of knowledge by revealing that the effect of customers' perception of control over website interactions on customers' negative emotions differs depending on customers' regulatory focus (Dailey, 2004; Wu *et al.*, 2015). This adds to the existing literature in the field of regulatory focus by revealing the important role of customers' regulatory focus on exploring the impact of customers' perception of control over website interactions on negative emotions towards a company. This in turn calls for more research to account for personality differences when assessing the impact of customers' perception of control during website interactions. Further discussion is provided in Section 6.5.3.

Hypothesis 11b: The effect of customers' negative emotions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.

Originally, the researcher hypothesised that the effect of negative emotions on trust would be stronger for prevention-focus customers rather than promotion-focus customers (Chapter 3, Section 3.3.5) as prevention-focus customers are more sensitive to negative outcomes (Wang and Lee, 2006; Arnold and Reynolds, 2009; Arnold *et al.*, 2014). Nonetheless, building upon data analysis, this study discovers that the effect of negative emotions on trust towards a company is stronger for promotion-focus customers, rather than prevention-focus customers. This indicates that when customers with a promotion-focus orientation experience negative emotions, their trust towards a company is more likely to decrease, compared to customers with a prevention-focus orientation.

Hence, this study offers a novel perspective on understanding relationships between customers' negative emotions and trust during website interactions from a regulatory focus perspective. More specifically, the research provides empirical evidence that experiencing negative emotions goes in misalignment to promotion-focus orientation which in turn results in decreases in trust (Freitas and Higgins, 2002; Avnet and Higgins, 2006; Khajehzadeh *et al.*, 2014). These results contribute to the existing literature in the field of regulatory focus as they provide a foundation for further research development on understanding the complexity between customers' negative emotions, trust, and customers' regulatory focus orientation. Further discussion on this is provided in Section 6.5.4.

Once the researcher discusses the results related to the main hypotheses in the research model of this study, the next sub-section of the discussion chapter summarises key contributions.

6.5 Establishing key theoretical and practical contributions

This sub-section of the discussion chapter aims to establish the key contributions of the PhD thesis. Building upon the literature review (Chapter 2), the researcher has identified three literature gaps which this thesis hoped to address:

- Investigating how customers' perception of control over website interactions shapes customers' emotions and trust.
- Re-evaluating the impact of customers' perception of control over website interactions on intended behaviour towards a company.

- Establishing the moderating role of customers' regulatory focus on relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company.

Taken together with data analysis conducted in Chapter 5, this thesis addressed the above literature gaps through the following hypotheses and findings (Table 54):

1) This study discovers that customers' perception of control over website interactions has a stronger impact on customers' emotions rather than trust (Chapter 6, Section 6.2).
2) The research determines that customers' perception of control over website interactions drives intended behaviour through mediating constructs of customers' emotions and trust (Chapter 6, Section 6.3).
3) The study establishes that customers' regulatory focus moderates the relationships between customers' perception of control over website interactions and negative emotions towards a company. Specifically, the research demonstrates that customers' perception of control over website interactions is more likely to decrease negative emotions towards a company for customers with a prevention-focus orientation, rather than customers with promotion-focus orientation (Chapter 6, Section 6.4).
4) The study reveals that customers' regulatory focus moderates the relationships between negative emotions and trust towards a company. Particularly, findings show that negative emotions are more likely to decrease trust towards a company for promotion-focus customers, compared to prevention-focus customers (Chapter 6, Section 6.4).

Hypotheses	**Contribution to knowledge**
Hypothesis 1a: Customers' increased perception of control over website interactions leads to higher levels of positive emotions towards a company.	**Contributing to existing knowledge.**
Hypothesis 1b: Customers' decreased perception of control over website interactions leads to lower levels of negative emotions towards a company.	**Contributing to existing knowledge.**
Hypothesis 2: Customers' increased perception of control over website interactions leads to higher levels of trust towards a company.	**Confirming existing knowledge.**
Hypothesis 3: Customers' increased perception of control over website interactions leads to increases in intended behaviour towards a firm.	**Confirming existing knowledge.**

Hypothesis 4a: Customers' positive emotions lead to higher levels of trust towards a company.	**Confirming existing knowledge.**
Hypothesis 4b: Customers' negative emotions lead to lower levels of trust towards a company.	**Confirming existing knowledge.**
Hypothesis 5a: Customers' positive emotions lead to increases in customers' intended behaviour towards a company.	**Confirming existing knowledge.**
Hypothesis 5b: Customers' negative emotions lead to decreases in customers' intended behaviour towards a company.	**Confirming existing knowledge.**
Hypothesis 6: Customers' trust leads to increases in customers' intended behaviour towards a company.	**Confirming existing knowledge.**
Hypothesis 7: Trust, positive and negative emotions fully mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company.	**Contributing to existing knowledge.**
Hypothesis 8a: The effect of customers' perception of control over website interactions on positive emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Hypothesis not supported.**
Hypothesis 8b: The effect of customers' perception of control over website interactions on negative emotions towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Contributing to existing knowledge.**
Hypothesis 9: The effect of customers' perception of control over website interactions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Hypothesis not supported.**
Hypothesis 10: The effect of customers' perception of control over website interactions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Hypothesis not supported.**
Hypothesis 11a: The effect of customers' positive emotions on trust towards a company is stronger for promotion-focus customers than for prevention-focus customers.	**Hypothesis not supported.**
Hypothesis 11b: The effect of customers' negative emotions on trust towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Contributing to existing knowledge.**
Hypothesis 12a: The effect of customers' positive emotions on intended behaviour towards a company is stronger for promotion-focus customers than for prevention-focus customers.	**Hypothesis not supported.**
Hypothesis 12b: The effect of customers' negative emotions on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Hypothesis not supported.**

Hypothesis 13: The effect of customers' trust on intended behaviour towards a company is stronger for prevention-focus customers than for promotion-focus customers.	**Hypothesis not supported.**

Table 54. Hypotheses overview – contribution to knowledge.

Whilst those findings have been briefly discussed in the previous sub-section, the doctoral thesis needs to provide an in-depth discussion in line with existing literature on the implications of those findings. Contributions are examined from a theoretical and practical perspective. Firstly, the impact of customers' perception of control over website interactions on customers' emotions and trust towards a company is reviewed. Next, the researcher discusses findings related to mediating the role of customers' emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company. This sub-section finishes by determining the role of regulatory focus on relationships between customers' perception of control over website interactions, customers' emotions, and trust towards a company.

6.5.1 Determining the impact of customers' perception of control over website interactions on customers' emotions and trust towards a company

The first contribution of this study relates to the impact of customers' perception of control over website interactions on customers' emotions and trust towards a company. This study establishes that customers' perception of control over website interactions has a stronger impact on customers' emotions rather than on customers' trust towards a company. The findings close the existing literature gap on understanding how customers' perception of control over website interactions shapes customers' emotions and trust towards a company simultaneously (Rose *et al.*, 2012; Manganari *et al.*, 2014; Kirk *et al.*, 2015; Zhang and Mao, 2020).

Theoretical contribution.

From theoretical implications, these results add to the existing body of knowledge in several ways. Firstly, this study adds to the existing literature by emphasising the important role of emotions in exploring the notion of customers' perception of control over website interactions (Beaudry and Pinsonneault, 2010; Rose *et al.*, 2012). This in turn addresses the call in the literature to examine the importance of customers' emotions during online website experiences (Lee and Turban, 2001; Bart *et al.*, 2005; Collier and Sherrell, 2010; Manganari *et al.*, 2014). Secondly, the research provides a novel perspective by determining that customers' perception of control over website interactions has a stronger influence on customers' emotions. Typically,

the existing research focuses on examining the impact of customers' perception of control over website interactions on shaping trust (Ming-Shen *et al.*, 2007; Collier and Sherrell, 2010; Wu and Lin, 2012). However, this research challenges the existing literature and expands current knowledge by offering a new perspective on customers' emotions and trust as a response to customers' perception of control over website interactions. Building upon Cognitive Appraisal theory, this study contributes to existing knowledge by providing empirical evidence that customers' perception of control has a stronger effect on customers' emotions rather than on trust during website interactions (Folkman *et al.*, 1986; Lazarus, 1991a). This is an important theoretical implication as it provides a foundation for further literature development on the role of emotions during website interactions.

Traditionally, customers' perception of control and other website characteristics are explored from a human-computer interaction perspective in e-commerce literature (Grabner-Kräuter and Kaluscha, 2003; Sun and Zhang, 2006; Cyr *et al.*, 2009). Specifically, existing studies in HCI show that the perception of control online acts as a proxy for establishing trust towards a website as by having higher levels of control, customers perceive a website to be more trusting (Suh and Han, 2003; Sembada and Koay, 2021). However, by adopting cognitive appraisal and online service encounters perspective, this study moves away from the HCI approach and discovers that customers' perception of control over website interactions has stronger influences on shaping customers' emotions rather than driving trust towards a company (Lee and Turban, 2001; Bart *et al.*, 2005; Collier and Sherrell, 2010; Manganari *et al.*, 2014). Whilst its' important findings address the literature gap, this study could have been far more reaching if it determined the impact of customers' perception of control on customers' emotions and trust towards a website, and subsequently towards a company. Nonetheless, by adopting an online service encounter approach, this research creates a foundation for future research to further enhance the knowledge of the impact of customers' perception of control online on customers' emotions and trust during website interactions.

Alternatively, this study positions customers' emotions and trust towards a company as outcome variables to the response of customers' perception of control online. It would have been interesting to assess how customers' pre-existing emotions and trust towards a company (treating emotions and trust as antecedents of perception of control online) shape customers' perception of control over website interactions, as well as to identify the role of customers' perception of control online in changing pre-existing customers' emotions and trust towards a company (Venkatesh *et al.*, 2011). Whilst it's the gap that future research can address, this study

addresses the existing knowledge gap and lays the foundation by determining that customers' perception of control over website interactions has stronger associations with customers' emotions than trust towards a company.

Lastly, this research treats customers' emotions as a sum of emotions and divides them into positive and negative emotions. Hereafter, it is impossible to establish which specific emotion drives the stronger associations with the perception of control over website interactions. For instance, Éthier *et al.* (2008) argue that control perceptions online have stronger correlations with frustration compared to other emotions. This creates another literature gap that future research can address. In the meantime, this study serves as a theoretical foundation by adding to the existing knowledge and providing empirical evidence that customers' perception of control online has a stronger influence on shaping customers' emotions rather than trust towards a company.

Managerial implications.

From a practical perspective, these findings offer practical implications for user-experience designers (UX designers) and marketing managers by emphasising the crucial role of customers' perception of control over website interactions in shaping customers' emotions during website interactions. Specifically, the findings indicate that by strengthening customers' perception of control through website features, companies can increase positive emotions and decrease negative emotions during website interactions. By enhancing customers' sense of control during website interactions through user interfaces, navigation systems and interactive features, companies can focus on delivering positive online experiences. This study suggests that by empowering customers with the perception of control during website interactions, organisations can create emotionally engaged online experiences which then affect intended behaviour towards a company. It is important to note that whilst customers' perception of control over website interactions has a stronger association with customers' emotions than trust, it still influences trust during website experiences. Therefore, by focusing on increasing customers' sense of control during website interactions, organisations can also increase trust which in turn affects intended behaviour towards a company.

Confirming the important role of customers' emotions and trust as a response to customers' perception of control over website interactions, leads to the next key contribution of this thesis.

6.5.2 Recognising the mediating role of customers' emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company

The second contribution of this research refers to acknowledging the mediating role of customers' emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company. This study recognises that customers' perception of control over website interactions doesn't directly drive intended behaviour towards a company but does so through mediating constructs of customers' emotions and trust. This research postulates that if customers perceive high levels of control over website interactions, they experience positive emotions towards a company which in turn positively impacts customers' trust and as a result intended behaviour towards a company. Alternatively, if customers perceive low levels of control over website interactions, they experience negative emotions and a decrease in trust towards a company which hinders customers' intended behaviour towards a company. These results contribute to the existing knowledge by challenging existing theories and recognising the mediating role of customers' emotions and trust (Ajzen, 1991; Fishbein and Ajzen, 2011; Fan *et al.*, 2017).

Theoretical contribution.

From a theoretical perspective, these findings challenge the existing literature which posits that customers' perception of control directly influences intended behaviour towards a company (Ajzen, 1991; Pavlou and Fygenson, 2006). As discussed in Chapter 2 of this thesis, the existing research is divided when concluding whether customers' perception of control drives intended behaviour towards a company. This research provides empirical evidence and joins the stream of the research which postulates that customers' perception of control over website interactions doesn't directly impact intended behaviour towards a company (Collier and Sherrell, 2010; Rose *et al.*, 2012; Manganari *et al.*, 2014). This in turn challenges the oversimplified view of customers' perception of control driving intended behaviour and stresses the importance of considering mediating variables such as emotions and trust towards a company.

However, as the researcher moves away from the HCI perspective, it is not possible to identify where the perception of control over website interaction would have a stronger influence on intended behaviour towards a website through shaping emotions and trust towards a website first (Pavlou, 2003; Pavlou and Fygenson, 2006). Hence, future research can address this limitation by researching the influence of the perception of control online on website adoption

first, followed by intended behaviour towards a company. This would create a clearer understanding of the type of behavioural intentions the perception of control over website interactions has an impact on. Nonetheless, this research contributes to existing knowledge and lays the foundation for future studies by providing empirical evidence that customers' perception of control over website interactions does not drive intended behaviour by itself.

On another hand, this study adds to the existing knowledge by recognising the mediating role of customers' emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company (Dailey, 2004; Van Noort *et al.*, 2012; Kirk *et al.*, 2015). Specifically, this study discovers that customers' perception of control over website interactions shapes customers' emotions and trust, which in turn drives intended behaviour towards a company. This indicates that customers' perception of control over website interactions converts into customers' emotions and trust, which in turn drives intended behaviour towards a company. In other words, this research implies that customers' perception of control assists customers in forming positive emotions and trust, which in turn drives intended behaviour towards a company. These findings are important as they add to the existing body of knowledge by joining the stream of research that recognises that the perception of control online drives intended behaviour through mediating constructs of customers' emotions and trust.

Whilst existing literature acknowledges the mediating role of trust in the relationships between customers' perception of control over website interactions and intended behaviour towards a company, this study further extends the knowledge by distinguishing the crucial role of customers' emotions (Collier and Sherrell, 2010; Rose *et al.*, 2012; Manganari *et al.*, 2014). This, in turn, addresses the literature gap by recognising that both customers' emotions and trust mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company. This adds to the existing research by providing empirical evidence that customers' emotions and trust simultaneously mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company.

Managerial implications.

From practical implications, this research shows that customers' perception of control over website interactions shapes emotions and trust, which in turn drives intended behaviour towards a company. By recognising that customers' perception of control influences emotions

and trust, which then impact intended behaviour, organisations can design various features on the website to effectively influence emotions and trust. This is a valuable finding as it highlights that during website interactions, companies can influence customers' emotions and trust, but not drive intended behaviour towards a company through manipulating customers' perception of control. This further reappraises the importance of accounting for customers' emotions and trust during website experiences. Specifically, this study sheds light on the importance of accounting for customers' emotions and trust in driving intended behaviour towards a company because of the enhanced perception of control.

This research suggests that companies can implement relevant website features to increase customers' perception of control online which in turn fosters customers' emotions and trust and as a result drives intended behaviour towards a company. For instance, companies can focus on enhancing the sense of control through various website design features and marketing initiatives such as content design, interactivity features, and navigation cues to impact customers' emotions, trust, and as a result intended behaviour towards a company.

In summary, this research establishes a novel perspective on understanding the complex relationships between customers' perception of control, customers' emotions, trust and intended behaviour towards a company. However, existing literature also argues that the relationships might differ depending on customers' psychological characteristics (Roy and Ng, 2012; Krishen *et al.*, 2019). Thus, the next sub-section discusses the role of regulatory focus in moderating the relationships between customers' perception of control, customers' emotions, trust and intended behaviour towards a company.

6.5.3 Acknowledging the moderating role of regulatory focus on relationships between customers' perception of control over website interactions, and customers' negative emotions towards a company

The third contribution of this study relates to establishing the moderating effect of customers' regulatory focus on relationships between customers' perception of control over website interactions and customers' negative emotions towards a company. This study determines that for customers with a prevention-focus orientation, the influence of the perception of control over website interactions on negative emotions is stronger, compared to customers with a promotion-focus orientation. In other words, for prevention-focused customers, the perception of control over website interactions is more likely to lead to decreases in negative emotions towards a company.

Theoretical contribution.

Building upon existing literature, this research establishes that there is a difference in emotional response to the perception of control amongst customers with prevention-focus and customers with promotion-focus. The study shows that for customers with a prevention-focus orientation, the perception of control over website interactions plays a crucial role in mitigating negative emotions towards a company, compared to customers with a promotion-focus orientation. This means that prevention-focus customers use the perception of control over website interactions as a proxy for mitigating negative emotions towards a company. Specifically, as prevention-focus customers put more emphasis on security and risk avoidance, the perception of control over website experience acts as a reassurance, which in turn aids the decrease in negative emotions towards a company (Lee and Aaker, 2004; Lee *et al.*, 2010; Ashraf and Thongpapanl, 2015; Barari *et al.*, 2020). The effect of customers' perception of control over website interactions on negative emotions is not as strong for promotion-focus customers as this type of customer is more focused on pursuing desired positive outcomes rather than avoiding negative outcomes (Chernev, 2004a; Nath and McKechnie, 2016). The following results mean that the degree of influence of customers' perception of control over website interactions on customers' negative emotions is not the same for all customers, and the effect differs depending on regulatory focus orientation.

Thus, this research contributes to the existing knowledge by establishing that there is a difference between customers with a prevention-focus orientation and customers with a promotion-focus orientation when assessing the impact of customers' perception of control over website interaction on negative emotions towards a company. The difference in the impact of customers' perception of control online on the emotional outcome towards a company between customers with different regulatory focus orientations further supports the importance of accounting for individual's differences during online interactions.

Managerial implications.

From practical implications, this finding assists organisations in understanding how to deliver tailored website interactions to customers based on regulatory focus orientations. This study's results shine light on understanding how to deliver website interactions to mitigate negative emotions during online experiences. For instance, the research reiterates the importance of understanding customers' personality characteristics to ensure that organisations deliver personalised, tailored website experiences which in turn shape customers' emotions and trust

towards a company. From a regulatory focus theory perspective, this study suggests that companies should focus on enhancing the perception of control over website interactions for prevention-focus customers as it results in a decrease in negative emotions towards a company. To do so, companies can focus on delivering tailored website experiences, where they emphasise website features which foster a sense of control. Those could include, but are not limited to customisable options, interactive features, and navigational cues. This in turn will help prevention-focus customers to minimise negative emotions as the perception of control will enhance a sense of security.

Whilst not all hypotheses relating to the moderating effect of regulatory focus have been supported, this study adds to the existing knowledge by discovering that regulatory focus moderates the relationships between negative emotions and trust towards a company. The in-depth discussion is to follow in the next sub-section.

6.5.4 Discovering the moderating role of regulatory focus on relationships between customers' negative emotions and trust towards a company

This research establishes that for customers with a promotion-focus orientation, the impact of negative emotions on trust towards a company is stronger, compared to customers with a promotion-focus orientation. The findings show that for customers with a promotion-focus orientation, experiencing negative emotions creates a mismatch in their regulatory orientation which results in a decrease in trust.

Theoretical contribution.

From a theoretical perspective, these findings challenge the initial hypothesis derived from existing literature, which theorised that prevention-focus customers, due to their risk-aversion nature, would have a stronger relationship between negative emotions and trust towards a company (Pham and Higgins, 2005; Avnet and Higgins, 2006) (Chapter 3, Section 3.3.5). Whilst the findings contradict the original hypothesis, they still contribute to existing knowledge on understanding the role of regulatory focus in online consumer behaviour. Specifically, it adds to the existing knowledge by establishing that customers with promotion-focus orientations are more sensitive to experiencing negative emotions which results in decreases in trust towards a company. The potential explanation lies within hypothesising that experiencing negative emotions goes in misalignment with promotion-focus orientation and as

a result, customers with promotion-focus experience a decrease in trust towards a company (Freitas and Higgins, 2002; Higgins, 2005).

Building upon regulatory focus theory, these findings suggest that for promotion-focus customers, negative emotions could be seen as a threat to achieving positive outcomes which creates a mismatch in regulatory orientation (Freitas and Higgins, 2002; Avnet and Higgins, 2006; Khajehzadeh *et al.*, 2014). Taking this further, a mismatch with promotion-focus orientation then results in a decrease in trust towards a company. On another hand, the effect of negative emotions on trust towards a company is not as strong for prevention-focus customers as they are more resilient to negative emotions due to their nature of focusing on avoiding negative outcomes company (Freitas and Higgins, 2002; Higgins, 2005). This is an important finding as it further contributes to the existing knowledge by unlocking how customers' regulatory focus influences customers' emotions and trust towards a company during website interactions.

Managerial implications.

In practical terms, these results draw attention to the management of emotions and trust based on customers' regulatory focus orientation during website interactions. For instance, the research proposes that companies should focus on creating proactive measures to address negative emotions during website interactions for promotion-focus customers. For instance, the results show that experiencing negative emotions is more likely to lead to a decrease in trust towards a company for promotion-focus customers. Hence, organisations must ensure that they have strategies in place to mitigate negative emotions for promotion-focus customers. This could be done through implementing customer-focused communication strategies, such as responsive and empathetic customer service support on the website. This in turn should help soften the impact of negative emotions on trust for promotion-focus customers.

Taken together, these results assist companies by tailoring website interactions based on distinct psychological orientations such as regulatory focus to foster positive experiences and trust towards a company.

In summary, regulatory focus hasn't been applied widely in online consumer research previously, and thus, these study's findings offer a novel perspective on the importance of regulatory focus in understanding online consumer behaviour.

6.6 Conclusion

This chapter provided an in-depth discussion of the results related to the main research model. In summary, this study has three major theoretical and practical contributions to the existing literature. This PhD thesis adds to the existing body of knowledge through:

- Establishing that customers' perception of control over website interactions has a stronger influence on customers' emotions rather than trust towards a company.
- Acknowledging that customers' perception of control over website interactions drives intended behaviour towards a company through mediating constructs of customers' emotions and trust.
- Recognising that customers' regulatory focus orientation moderates the relationships between customers' perception of control over website interactions and negative emotions towards a company, as well as the relationships between negative emotions and trust towards a company.

All three findings have significant theoretical and practical contributions which have been critically reviewed in this chapter. To conclude the PhD thesis, the next chapter outlines a summary of key contributions, discusses limitations and potential for future research, and provides personal reflection.

7 Conclusion

The last chapter aims to summarise this PhD thesis by providing an overview of the key theoretical and practical implications of the study. The chapter begins with an introduction, followed by an outline of the contribution to knowledge that this thesis achieved. Next, limitations and suggestions for future research are presented. The chapter finishes by sharing a personal reflection, followed by concluding remarks related to the whole PhD thesis.

7.1 Introduction

The last chapter of the thesis summarises the overall findings of this research, critically reviews limitations, and outlines avenues for future research. This PhD thesis aim was to investigate how customers' perception of control over website interactions impacts customers' emotions, trust and intended behaviour towards a company as well as to establish the role of regulatory focus moderating these relationships. This study achieved this goal by establishing three key theoretical and practical contributions related to the role of customers' perception of control over website interactions and regulatory focus in shaping customers' emotions and driving trust and intended behaviour towards a company. Table 55 below provides an overview of key findings and their theoretical and managerial implications.

Key findings	Theoretical contributions	Managerial implications
Customers' perception of control over website interactions has a stronger association with customers' emotions rather than trust.	This study adds to the existing literature by emphasising the important role of emotions in exploring the notion of customers' perception of control over website interactions (Beaudry and Pinsonneault, 2010; Rose *et al.*, 2012). This in turn addresses the call in the literature to examine the importance of customers' emotions during online website experiences (Lee and Turban, 2001; Bart *et al.*, 2005; Collier and Sherrell, 2010; Manganari *et al.*, 2014). Building upon Cognitive Appraisal theory, this study contributes to existing knowledge by providing empirical evidence that customers' perception of control has a stronger effect on customers' emotions rather than on trust during website interactions (Folkman *et al.*, 1986; Lazarus, 1991a).	This result postulates that companies should focus on fostering the perception of control amongst customers to enhance positive emotions and mitigate negative emotions towards a company during website interactions. Companies can increase the sense of control by implementing a range of interactive features (navigation cues, customisable content, personalisation) and being transparent in their website copywriting.
Customers' perception of control over website interactions drives intended behaviour towards a company through mediating constructs of customers' emotions and trust.	Firstly, these findings challenge the existing literature which posits that customers' perception of control directly influences intended behaviour towards a company (Ajzen, 1991; Pavlou and Fygenson, 2006). This research provides empirical evidence and joins the stream of the research which postulates that customers' perception of control over website interactions	This demonstrates that by enhancing customers' perception of control over website interactions, companies can increase customers' emotions and trust, which in turn will drive intended behaviour towards a company. Companies can increase the sense of control through implementing a range of interactive features (navigation cues,

	doesn't directly impact intended behaviour towards a company (Collier and Sherrell, 2010; Manganari *et al.*, 2014; Rose *et al.*, 2012). Secondly, the results add to the existing knowledge by recognising the mediating role of customers' emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company (Dailey, 2004; Van Noort *et al.*, 2012; Kirk *et al.*, 2015). Whilst existing literature acknowledges the mediating role of trust in the relationships between customers' perception of control over website interactions and intended behaviour towards a company, this study further extends the knowledge by distinguishing the crucial role of customers' emotions (Collier and Sherrell, 2010; Manganari *et al.*, 2014; Rose *et al.*, 2012).	customisable content, personalisation) and being transparent in their website copywriting.
Customers' perception of control over website interactions is more likely to lead to decreases in negative emotions towards a company, for customers with prevention-focus, compared to customers with promotion-focus orientation.	This study determines that for customers with a prevention-focus orientation, the influence of perception of control over website interactions on negative emotions is stronger, compared to customers with a promotion-focus orientation. This contributes to the existing body of knowledge by revealing that the effect of customers' perception of control over website interactions on customers' negative emotions differs depending on customers' regulatory focus (Dailey, 2004; Wu *et al.*, 2015). This in turn adds to the existing literature on regulatory focus as it outlines how regulatory focus affects the impact of customers' perception of control over website interactions on negative emotions towards a company.	This finding reinforces the significance of understanding customers' personality characteristics and delivering tailored interactions as a result. Specifically, this study suggests that companies can decrease negative emotions towards a company amongst prevention-focus customers by fostering a sense of control amongst this customer cohort. To do so, companies can invest in implementing interactive features, customisable context, navigation cues and others.
Negative emotions are more likely to decrease trust for customers with promotion-focus, compared to customers with prevention-focus orientation.	This study offers a novel perspective on understanding relationships between customers' negative emotions and trust during website interactions from a regulatory focus perspective. More specifically, the research provides empirical evidence that experiencing negative emotions goes in misalignment to promotion-focus orientation which in turn results in decreases in trust (Freitas and Higgins, 2002; Avnet and Higgins, 2006; Khajehzadeh *et al.*, 2014). These results contribute to the existing literature in the field of regulatory focus as they provide a foundation for further research development on understanding the complexity between customers' negative emotions, trust, and customers' regulatory focus orientation.	This also reaffirms the importance of delivering tailored online experiences based on customers' personality characteristics. This result posits that companies should focus on mitigating negative emotions amongst promotion-focus customers to ensure that their trust towards a company doesn't decrease. To do so, companies can focus on reinforcing positive communication on the website and implementing responsive customer support services.

Table 55. Overview of key findings and contributions of the PhD thesis.

One of the main goals of PhD thesis is to contribute to the existing body of knowledge. Therefore, the next sub-section focuses on demonstrating how this study contributes to

knowledge in the areas of theoretical contribution, methodological contribution, and empirical contribution.

7.2 Contribution to knowledge

Summers (2019) recognise that PhD thesis should contribute to the existing knowledge in the ways of theoretical contribution, empirical and methodological contribution. Theoretical contribution accounts for the development of new constructs or the establishment of extra constructs in the research model, such as moderating or mediating variables (Summers, 2019). Empirical contribution involves empirically testing for new causal relationships in the model which hasn't been tested before (Saunders *et al.*, 2019). The methodological contribution focuses on adding to the existing knowledge through research methods used in the research (Saunders *et al.*, 2019). Specifically, the research can make a methodological contribution by adopting advanced statical techniques, or by employing a research design which increases the generalisability of findings (Saunders *et al.*, 2019; Hair *et al.*, 2021). Hence, this sub-section discusses how this research adds to the body of knowledge by exploring its theoretical, empirical, and methodological contributions. Firstly, theoretical contributions are discussed, followed by empirical and methodological contributions.

Theoretical contributions.

In Chapter 2 of this thesis, the researcher established several literature gaps which this study addresses by empirically testing the research model. This study contributes to the theory by examining the complex relationships between customers' perception of control over website interactions, customers' regulatory focus, emotions, trust, and intended behaviour towards a company. This research offers a novel perspective on suggesting the mediating role of emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company. Furthermore, this study further extends the S-O-R framework by recognising the moderating role of regulatory focus as customers' personality characteristics. Building upon the findings of this study, the following thesis has three major theoretical contributions:

1) This thesis contributes to the theory by recognising the important role of emotions in understanding the influence of customers' perception of control during website experiences. More specifically, this research establishes that customers' perception of control over website interactions has a stronger influence on emotions rather than trust

towards a company. This further adds to the existing knowledge by discovering that customers' perception of control over website interactions has a stronger association with customer emotions (Lazarus, 1991a; Rose *et al.*, 2012). Predominantly, existing research is focused on exploring the influence of customers' perception of control over website interactions on customers' trust towards a company (Collier and Sherrell, 2010). However, little is known about how customers' perception of control over website interactions shapes customers' emotions towards a company. Building upon Cognitive Appraisal Theory, this research argues that customers would have a stronger emotional response as a result of the perception of control during website interactions (Folkman *et al.*, 1986; Jiang, 2020; Kursan Milaković and Ahmad, 2023). This is an important finding as it shines light on how customers' emotions are affected during website interactions. In practical terms, this study suggests that organisations should focus on heightening customers' sense of control to evoke positive customer emotions' during website interactions. To do so, this research proposes to incorporate various elements which foster a sense of control such as interactive features, navigation cues, and customisable content. This in turn should enhance customers' perception of control and positively influence emotions towards a company. Alternatively, companies can increase customers' sense of control over website interactions and as a result foster positive emotions through being transparent in their website content communications, such as clearly defining their pricing, delivery and return policies. Furthermore, by integrating personalisation in the website interactions, companies can enhance customers' perception of control which in turn increases positive emotions and decreases negative emotions towards a company. The full discussion is provided in Chapter 6. The role of emotions as a response to customers' feeling in control over website interactions leads to the second contribution of this study.

2) The second contribution of this study corresponds to acknowledging the mediating role of customers' emotions and trust in relationships between customers' perception of control over website interactions and intended behaviour towards a company. Particularly, this research determines that customers' perception of control over website interactions doesn't directly influence intended behaviour towards a company, but through the mediating role of emotions and trust. This challenges the existing research which postulates, building upon the Theory of Planned Behaviour, that customers' perception of control over website interactions directly influences intended behaviour towards a company (Ming-Shen *et al.*, 2007). Moreover, whilst the mediating role of trust in relationships between customers'

perception of control over website interactions and intended behaviour towards a company is discussed in the literature, less is known about the mediating role of emotions (Collier and Sherrell, 2010; Rose *et al.,* 2012; Manganari *et al.,* 2014). Hence, this study adds to the existing knowledge by recognising that customers' perception of control over website interactions impacts customers' intended behaviour towards a company through customers' emotions and trust. In practical terms, this research reinforces the importance of focusing on customers' emotions and trust to drive intended behaviour towards a company as a result of customers' perception of control. This study suggests that companies should focus on fostering a sense of control over website interactions through interactive features, navigation cues, personalisation, and transparent communication. This in turn will positively impact customers' emotions and enhance trust towards a company which will positively drive intended behaviour towards a company. The full discussion is outlined in Chapter 6.

3) The third theoretical contribution of this research acknowledges the important role of customers' regulatory focus as a moderating variable on customers' perception of control over website interactions, customers' emotions, and customers' trust. This adds to the existing knowledge by recognising the crucial role of customers' personality characteristics in understanding how customers' perception of control over website interactions shapes customers' emotions, and as a result, drives trust towards a company (Kirk *et al.*, 2015; Das, 2016; Krishen *et al.*, 2019; O'Connor *et al.*, 2021). Furthermore, this study offers a novel perspective on understanding the influence of customers' personality characteristics from the perspective of customers' regulatory focus orientations (Higgins, 1998; Ashraf *et al.*, 2016b). The regulatory focus hasn't been applied widely in online consumer behaviour literature, and therefore, this research further contributes to the existing literature by recognising the important role of a customer's regulatory focus (Ashraf and Thongpapanl, 2015). Specifically, this study establishes that customers' perception of control over website interactions has a stronger influence on negative emotions towards a company for prevention-focus customers compared to promotion-focus customers. Alternatively, this research's findings also postulate that the impact of negative emotions on trust towards a company is stronger for promotion-focus rather than prevention-focus customers. The full discussion is to be found in Chapter 6.

In summary, the current findings are important as they broaden understanding of how customers' chronic regulatory focus orientations affect relationships between customers' perception of control over website interactions, customers' negative emotions, and trust towards a company. More specifically, findings contribute to regulatory focus theory by further understanding the differences in customers' emotions and trust for promotion-focus and prevention-focus customers. This further highlights the importance of understanding customers' personality characteristics when delivering online website experiences and driving customers' emotions and trust towards a company.

In practical terms, this study stresses the importance of understanding customers' personality characteristics to deliver desirable website interactions which can affect customers' emotions and trust. Organisations can implement knowledge of customers' personality characteristics through delivering tailored website interactions, personalised communications, and personalised website content. One way of doing so is through conducting segmentation research work or establishing customers' personas. This was one of the key potential contributions of this thesis in collaboration with Vodafone which did not happen. However, an example of applying customers' personality characteristics to deliver high-quality website interactions can be found in Appendix 1. Nonetheless, from a regulatory focus perspective, this research suggests that companies can focus on fostering the perception of control over website interactions for prevention-focus customers to increase their sense of security and risk avoidance. To enhance a sense of control online, companies can implement various website features, such as interactivity tools, navigation cues, customisable content, and personalised communications. This will result in the decrease of negative emotions towards a company for prevention-focused customers. Alternatively, the study proposes that companies should focus on mitigating negative emotions during website interactions for promotion-focus customers to ensure that they don't experience a decrease in trust towards a company. To mitigate negative emotions, companies can focus on ensuring that they have responsive customer support on the website or implementing positive-focus languages on the web pages. This in turn should assist organisations in preventing a decrease of trust because of negative emotions for promotion-focus customers.

Empirical contributions.

This PhD thesis has two empirical contributions:

1) Whilst regulatory focus has been adopted previously as customers' personality characteristics in understanding customers' online behaviour, the moderating effect of regulatory focus on relationships between customers' perception of control over website interactions and customers' emotions, trust, and intended behaviour towards a company hasn't been examined before. Thus, there is no empirical evidence on how customers' regulatory focus influences customers' emotions, trust and intended behaviour towards a company as a response to the perception of control over website interactions. The empirical contribution of this study refers to investigating the moderating effect of regulatory focus on relationships between customers' perception of control over website interactions, customers' emotions, trust, and intended behaviour towards a company.

2) The second empirical contribution corresponds to testing multiple mediations of customers' emotions and trust on relationships between customers' perception of control over website interactions and intended behaviour towards a company. Typically, existing research focuses on exploring the role of trust, or emotions in insolation. This study shines light on understanding how customers' emotions and trust together mediate the relationships between customers' perception of control over website interactions and intended behaviour towards a company.

Methodological contribution.

As previously discussed, methodological contribution refers to adding to the existing body of knowledge by employing advanced statistical techniques. Hereafter, to understand how customers' perception of control over website interactions, and customers' regulatory focus shapes customers' emotions and drive trust and intended behaviour towards a company, this study employs the PLS-SEM technique for empirical testing. Whilst adopting PLS-SEM is not considered to be a novel methodological implication in marketing, the researcher still considers its to be a methodological contribution to this thesis. This research employs advanced statical techniques of multiple mediation to explore the role of customers' emotions and trust. Additionally, the researcher adopts PLS-MGA (multi-group analysis) to explore customers' differences in response (emotions, trust, and intended behaviour towards a company) to

customers' perception of control over website interactions based on regulatory focus orientations. Employing multiple mediation analysis and PLS-MGA is considered to be the methodological contribution of this study.

After theoretical, empirical, and methodological implications have been briefly discussed, the researcher moves on to summarise the key conceptual and practical contributions of this thesis.

7.3 Limitations and future research

Alongside contributions to knowledge, PhD thesis should also acknowledge the limitations of the thesis and outline avenues for future research. To do so, the researcher splits this section into theoretical, contextual, methodological, and empirical limitations.

7.3.1 Theoretical limitations

Building upon in-depth discussion in Chapter 6, the research considers the following theoretical limitations:

- First, the researcher employs PANAS-framework to examine customers' emotions in this study. PANAS focuses on investigating emotions in the valence-based approach, such as positive and negative emotions. Whilst this framework is argued to be appropriate for this study (Chapter 2), the research could have been more ground-breaking if it had focused on analysing particular emotions. Specifically, as previously established in Chapter 6, it would have been interesting to identify which specific emotions have stronger associations with customers' perception of control over website interactions. Similarly, whilst customers' emotions have been discovered as a mediating construct between customers' perception of control over website interactions and intended behaviour, this study lacks an understanding of whether the effect is driven by specific emotions. Hereafter, future research can address this gap by testing the current study's research model, but with specific positive and negative emotions.

- Second, the researcher treats customers' emotions and trust as outcome variables to customers' perception of control over website interactions. The research could have been far more reaching if it considered studying customers' emotions and trust as antecedent and outcome variables simultaneously. This could have contributed further to the existing literature by determining the role of customers' perception of control over website interactions in affecting pre to post customers emotions and trust towards

a company. Hence, future research can address this limitation by incorporating customers' trust and emotional variables as antecedents of perception of control.

- Lastly, this research focuses only on customers' perception of control as website characteristics influencing customers' emotions, trust, and intended behaviour. Whilst this study has made novel contributions related to the perception of control in shaping customers' emotions and driving trust and intended behaviour, in real-life scenarios, customers' emotions and trust are influenced by a variety of variables in the online domain. Thus, it is suggested for future research to incorporate other website-related variables, such as perceived responsiveness, perceived usefulness, perceived interactivity and more.

7.3.2 Contextual limitations

Contextual limitations refer to research limitations due to the context constraints. This study's context lies within the telecommunication industry, particularly Vodafone as a case study company. Whilst the telecommunication industry has been considered appropriate context for this research, it also limits the research findings to this industry. Therefore, to further unpack how customers' perception of control over website interactions influences customers' emotions, trust and intended behaviour towards a company, it is important to replicate this study in different contexts. It would be crucial for future research to assess the same relationships in different contexts to draw generalisable conclusions on the role of customers' perception of control over website interactions, emotions, trust, and intended behaviour towards a company.

7.3.3 Methodological limitations

From methodological limitations, one of the main limitations of this study that it is adopted a survey research design rather than an experiment research design. Whilst survey research design is widely adopted in the social sciences field, experiments become more common. Furthermore, the concept of regulatory focus derives from the psychology field, where experiments are considered to be the main research method to answer research questions. Unfortunately, the experiment research design was not feasible in this study due to time constraints, budget, and failed collaboration with Vodafone (more details on this are discussed in Chapter 1 and Chapter 4). Hence, future research can replicate this research's conceptual

model, but empirically test it through experiment research design. Future research can focus on manipulating different levels of control during website interactions and measure its impact on customers' emotions, trust and intended behaviour towards a company. Taking it further, future research can also manipulate different cues related to promotion or prevention orientations on the website to broaden understanding of the role of regulatory focus.

7.3.4 Empirical limitations

From an empirical limitations' perspective, this study has two empirical limitations. The first limitation refers to the regulatory focus scale. Whilst the researcher has conducted comprehensive analysis through various pilot studies to finalise the final regulatory focus scale, there are different ways to measure chronic regulatory focus. In this study, analysis of the measurement model highlights a lower level of validity and reliability for the prevention-focus scale opening an avenue for future research to revisit the measurement of the regulatory focus scale. The second limitation refers to the measurement of intended behaviour rather than the behaviour itself. As discussed in Chapter 4, it was not feasible at the time to measure actual behaviour online. However, existing research argues that to draw generalisable conclusions on a topic, it is crucial to measure actual behaviour. Hence, future research can focus on measuring customers' actual behaviour because of customers' perception of control over website interactions, customers' emotions and trust.

7.4 Personal reflection

As I approach the finalisation of doctoral research, I thought it would be useful to reflect on the journey I had. Reflection is an important part of the learning process (Baird *et al.*, 1991). From reflecting on our past experiences, we grow and learn. This journey was much more difficult and took much longer than I anticipated. My PhD journey consisted of both good and bad moments. However, I am grateful for the experience that I had as it helped me grow as a person.

When I started this journey, not only me, but the world was completely different. Scholars argue that completing a PhD is already a challenge in itself. My PhD experience took place during the global pandemic (2020-2022), Russian-Ukrainian Conflict (2023 – now), Israeli-Hamas Conflict (2024 – now). Whilst I was trying to distant myself from macro "variables", those events to this date affect me deeply as I have family and loved ones in all of those countries.

Nonetheless, I am happy that I have managed to pursue and continue with my PhD. I thank myself for being stubborn enough to get to this point, although I wanted to give up multiple times. Due to several hurdles and challenging times during the data collection period, I had to learn different programs, including teaching myself advanced statistical methods such as PLS-SEM by myself. I'm thankful for not giving up, and increasingly grateful for my supervisors for not giving up on me and providing their guidance in challenging times.

PhD taught me to be resilient, to be assertive, to be confident in myself. Looking back on my collaboration with Vodafone, I conclude if I had been more assertive and confident, our collaboration could have resulted in better outcomes. I could have been more proactive with Vodafone's senior management and re-emphasised the importance of my study for Vodafone and its commercial objectives. Moreover, I did not manage to gain wealthy publishing or teaching experience during my studies, which I regret. However, the path of collaboration with Vodafone has led me to this point, where I have recognised that the academic world might not be a good industry for my mental health.

To summarise, whilst PhD has been a bumpy road for me, it has also been revelatory on many levels, offering many opportunities for self-discovery and preparing me for whatever challenges may lie ahead.

7.5 Conclusion

This chapter concludes this thesis by outlining novel contributions to theory and practice in the fields of online consumer behaviour and regulatory focus orientation. This study contributes to existing knowledge by recognising that customers' perception of control over website interactions has stronger associations with customers' emotions rather than customers' trust. It also adds to the existing literature by determining that customers' perception of control over website interactions drives future intended behaviour towards a company by impacting customers' emotions and trust. This study found that customers' perception of control over website interactions does not directly increase or decrease customers' likelihood to recommend or stay with a company but through the mediating role of customers' emotions and trust towards a company. Whilst the literature has extensively confirmed the mediating role of trust between customers' perception of control over website interactions and intended behaviour, this research further contributes to the existing body of knowledge by demonstrating that emotions act as mediators between customers' perception of control over website interactions and intended behaviour towards a company. This research postulates that if customers perceive

higher levels of control over website interactions, they experience positive emotions towards a company which in turn positively impacts customers' trust and intended behaviour towards a company. It further adds to the existing literature by challenging the idea of the perception of control online being a direct driver of intended behaviour in an online environment and by emphasising the crucial role of customers' emotions and trust during website interactions.

Taken together, those two findings contribute to existing online customer behaviour literature by outlining how does customers' perception of control over website interactions shapes customers' emotions and drives trust and intended behaviour towards a company. In practice, these result assists companies in providing insights that by fostering customers' sense of control during website interactions, they can increase customers' emotions and trust, which in turn drives intended behaviour towards a company. This PhD thesis also gives suggestions on how companies can enhance customers' perception of control during website interactions.

Lastly, this study adds to the existing research by empirically proving that customers' regulatory focus moderates the relationships between customers' perception of control over website interactions, customers' emotions, and trust towards a company. This research discovers that there are differences in how customers deal with emotional and trust responses during website interactions based on their regulatory focus orientation. This study reveals that the impact of customers' perception of control online on negative emotions is stronger for prevention-focus customers rather than promotion-focus customers. As prevention-focus customers put more emphasis on security and risk avoidance, the perception of control over website experience assists them in decreasing negative emotions towards a company. On another hand, the impact of negative emotions on decreasing trust towards a company is stronger for promotion-focus customers rather than prevention-focus customers. The explanation lies within theorising that experiencing negative emotions goes in misalignment with promotion-focus orientation and as a result of that, customers with promotion-focus experience a decrease in trust towards a company. Both findings contribute to regulatory focus theory by further understanding the differences in emotions and trust for promotion-focus and prevention-focus customers. This further highlights the importance of future research focusing on examining different customers' personality characteristics when delivering online website experiences.

References

Aguirre, E., Mahr, D., Grewal, D., de Ruyter, K. & Wetzels, M. (2015). Unraveling the personalization paradox: The effect of information collection and trust-building strategies on online advertisement effectiveness. *Journal of Retailing,* 91(1), pp. 34-49.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes,* 50(2), pp. 179-211.

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior 1. *Journal of applied social psychology,* 32(4), pp. 665-683.

Amichai-Hamburger, Y., Fine, A. & Goldstein, A. (2004). The impact of Internet interactivity and need for closure on consumer preference. *Computers in Human Behavior,* 20(1), pp. 103-117.

Andersen, P. H. & Kumar, R. (2006). Emotions, trust and relationship development in business relationships: A conceptual model for buyer–seller dyads. *Industrial marketing management,* 35(4), pp. 522-535.

Anderson, J. L., Jolly, L. D. & Fairhurst, A. E. (2007). Customer relationship management in retailing: A content analysis of retail trade journals. *Journal of Retailing and Consumer Services,* 14(6), pp. 394-399.

Antwi, S. K. & Hamza, K. (2015). Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European journal of business and management,* 7(3), pp. 217-225.

Ariely, D. (2000). Controlling the information flow: Effects on consumers' decision making and preferences. *Journal of consumer research,* 27(2), pp. 233-248.

Arnold, M. J. & Reynolds, K. E. (2009). Affect and retail shopping behavior: Understanding the role of mood regulation and regulatory focus. *Journal of retailing,* 85(3), pp. 308-320.

Arnold, M. J., Reynolds, K. E., Jones, M. A., Tugut, M. & Gabler, C. B. (2014). Regulatory focus intensity and evaluations of retail experiences. *Psychology & Marketing,* 31(11), pp. 958-975.

Arnott, D. C., Wilson, D., Elliott, R. & Yannopoulou, N. (2007). The nature of trust in brands: a psychosocial model. *European Journal of Marketing,* 41(988-998).

Ashraf, A. R., Razzaque, M. A. & Thongpapanl, N. T. (2016a). The role of customer regulatory orientation and fit in online shopping across cultural contexts. *Journal of Business Research,* 69(12), pp. 6040-6047.

Ashraf, A. R. & Thongpapanl, N. (2015). Connecting with and converting shoppers into customers: Investigating the role of regulatory fit in the online customer's decision-making process. *Journal of Interactive Marketing,* 32(1), pp. 13-25.

Ashraf, A. R., Thongpapanl, N. T. & Spyropoulou, S. (2016b). The connection and disconnection between e-commerce businesses and their customers: Exploring the role of engagement, perceived usefulness, and perceived ease-of-use. *Electronic Commerce Research and Applications,* 20(1), pp. 69-86.

Avnet, T. & Higgins, E. T. (2006). How regulatory fit affects value in consumer choices and opinions. *Journal of Marketing research,* 43(1), pp. 1-10.

Baird, J. R., Fensham, P. J., Gunstone, R. F. & White, R. T. (1991). The importance of reflection in improving science teaching and learning. *Journal of research in Science Teaching,* 28(2), pp. 163-182.

Barari, M., Ross, M. & Surachartkumtonkun, J. (2020). Negative and positive customer shopping experience in an online context. *Journal of Retailing and Consumer Services,* 53(-), pp. 101985.

Barclay, D., Higgins, C. & Thompson, R. (1995). *The partial least squares (PLS) approach to casual modeling: personal computer adoption ans use as an Illustration*.

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

Batat, W. (2019). *Experiential marketing : consumer behaviour, customer experience and the 7Es,* Abingdon, Oxon ; New York, NY, Routledge.

Beaudry, A. & Pinsonneault, A. (2010). The other side of acceptance: studying the direct and indirect effects of emotions on information technology use. *MIS quarterly,* 1(34), pp. 689-710.

Bell, E., Bryman, A. & Harley, B. (2022). *Business research methods*, Oxford university press.

Benlian, A. (2015). Web personalization cues and their differential effects on user assessments of website value. *Journal of management information systems,* 32(1), pp. 225-260.

Bernard, H. R. (2013). *Social research methods: Qualitative and quantitative approaches,* Boston, Sage.

Beuckels, E. & Hudders, L. (2016). An experimental study to investigate the impact of image interactivity on the perception of luxury in an online shopping context. *Journal of Retailing and Consumer Services,* 33(-), pp. 135-142.

Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of marketing,* 56(2), pp. 57-71.

Bitner, M. J., Faranda, W. T., Hubbert, A. R. & Zeithaml, V. A. (1997). Customer contributions and roles in service delivery. *International journal of service industry management,* 8(3), pp. 193-205.

Bloemer, J. & De Ruyter, K. (1999). Customer loyalty in high and low involvement service settings: the moderating impact of positive emotions. *Journal of marketing management,* 15(4), pp. 315-330.

Bolton, R. N., McColl-Kennedy, J. R., Cheung, L., Gallan, A., Orsingher, C., Witell, L. & Zaki, M. (2018). Customer experience challenges: bringing together digital, physical and social realms. *Journal of service management,* 29(5), pp. 776-808.

Brengman, M. & Karimov, F. P. (2012). The effect of web communities on consumers' initial trust in B2C e-commerce websites. *Management Research Review,* 35(9), pp. 791-817.

Chang, H. H. & Chen, S. W. (2008). The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator. *Online information review,* 32(6), pp. 818-841.

Chang, H. H. & Wang, I. C. (2008). An investigation of user communication behavior in computer mediated environments. *Computers in Human Behavior,* 24(5), pp. 2336-2356.

Chang, S.-H., Chih, W.-H., Liou, D.-K. & Hwang, L.-R. (2014). The influence of web aesthetics on customers' PAD. *Computers in Human Behavior,* 36(-), pp. 168-178.

Chattaraman, V., Kwon, W.-S. & Gilbert, J. E. (2012). Virtual agents in retail web sites: Benefits of simulated social interaction for older users. *Computers in Human Behavior,* 28(6), pp. 2055-2066.

Chen, I. J. & Popovich, K. (2003). Understanding customer relationship management (CRM) People, process and technology. *Business process management journal,* 9(5), pp. 672-688.

Chernev, A. (2004a). Goal–attribute compatibility in consumer choice. *Journal of consumer psychology,* 14(1-2), pp. 141-150.

Chernev, A. (2004b). Goal orientation and consumer preference for the status quo. *Journal of Consumer Research,* 31(3), pp. 557-565.

Cheung, C. M. & Lee, M. K. (2006). Understanding consumer trust in Internet shopping: A multidisciplinary approach. *Journal of the American society for Information Science and Technology,* 57(4), pp. 479-492.

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research,* 295(2), pp. 295-336.

Chitturi, R., Raghunathan, R. & Mahajan, V. (2007). Form versus function: How the intensities of specific emotions evoked in functional versus hedonic trade-offs mediate product preferences. *Journal of marketing research,* 44(4), pp. 702-714.

Chung, H. & Zhao, X. (2004). Effects of perceived interactivity on web site preference and memory: Role of personal motivation. *Journal of Computer-Mediated Communication,* 10(1), pp. JCMC1017.

Collier, J. E. & Sherrell, D. L. (2010). Examining the influence of control and convenience in a self-service setting. *Journal of the Academy of Marketing Science,* 38(4), pp. 490-509.

Creswell, J. W. & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*, Sage publications.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process,* London, Sage.

Crowe, E. & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision-making. *Organizational behavior and human decision processes,* 69(2), pp. 117-132.

Cyr, D. (2008). Modeling web site design across cultures: relationships to trust, satisfaction, and e-loyalty. *Journal of management information systems,* 24(4), pp. 47-72.

Cyr, D., Head, M. & Ivanov, A. (2009). Perceived interactivity leading to e-loyalty: Development of a model for cognitive–affective user responses. *International Journal of Human-computer studies,* 67(10), pp. 850-869.

Dabholkar, P. A. & Sheng, X. (2009). The role of perceived control and gender in consumer reactions to download delays. *Journal of Business Research,* 62(7), pp. 756-760.

Dailey, L. (2004). Navigational web atmospherics: Explaining the influence of restrictive navigation cues. *Journal of Business Research,* 57(7), pp. 795-803.

Das, G. (2016). Understanding the role of regulatory focus in e-tailing activities. *Journal of Services Marketing,* 30(2), pp. 212-222.

Davies, M. B. & Hughes, N. (2014). *Doing a successful research project: Using qualitative or quantitative methods*, Macmillan International Higher Education.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly,* 13(3), pp. 319-340.

Davis, F. D., Bagozzi, R. P. & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management science,* 35(8), pp. 982-1003.

Dijkstra, T. K. & Henseler, J. (2015). Consistent partial least squares path modeling. *MIS quarterly,* 39(2), pp. 297-316.

Dillman, D. A., Smyth, J. D. & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: the tailored design method*, John Wiley & Sons.

Dodoo, N. A. & Wu, L. (2021). Regulatory focus and choice: The impact of control perceptions on advertising effectiveness. *Journal of Marketing Communications,* 27(1), pp. 69-92.

Dunn, J. R. & Schweitzer, M. E. (2005). Feeling and believing: the influence of emotion on trust. *Journal of personality and social psychology,* 88(5), pp. 736.

Easterby-Smith, M., Thorpe, R. & Jackson, P. R. (2012). *Management research,* London, Sage.

Eastlick, M. A., Lotz, S. L. & Warrington, P. (2006). Understanding online B-to-C relationships: An integrated model of privacy concerns, trust, and commitment. *Journal of Business Research,* 59(8), pp. 877-886.

Elwalda, A., Lü, K. & Ali, M. (2016). Perceived derived attributes of online customer reviews. *Computers in Human Behavior,* 56(-), pp. 306-319.

Etemad-Sajadi, R. (2014). The influence of a virtual agent on web-users' desire to visit the company. *International Journal of Quality & Reliability Management,* 31(4), pp. 419-434.

Ethier, J., Hadaya, P., Talbot, J. & Cadieux, J. (2006). B2C web site quality and emotions during online shopping episodes: An empirical study. *Information & Management,* 43(5), pp. 627-639.

Éthier, J., Hadaya, P., Talbot, J. & Cadieux, J. (2008). Interface design and emotions experienced on B2C Web sites: Empirical testing of a research model. *Computers in Human Behavior,* 24(6), pp. 2771-2791.

Fan, L., Liu, X., Wang, B. & Wang, L. (2017). Interactivity, engagement, and technology dependence: understanding users' technology utilisation behaviour. *Behaviour & Information Technology,* 36(2), pp. 113-124.

Fazeli, Z., Shukla, P. & Perks, K. (2020). Digital buying behavior: The role of regulatory fit and self-construal in online luxury goods purchase intentions. *Psychology & Marketing,* 37(1), pp. 15-26.

Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research,* Reading, MA, Addison-Wesley.

Fishbein, M. & Ajzen, I. (2011). *Predicting and changing behavior: The reasoned action approach*, Taylor & Francis.

Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A. & Gruen, R. J. (1986). Dynamics of a stressful encounter: cognitive appraisal, coping, and encounter outcomes. *Journal of personality and social psychology,* 50(5), pp. 992.

Fornell, C. & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research,* 18(1), pp. 39-50.

Freitas, A. L. & Higgins, E. T. (2002). Enjoying goal-directed action: The role of regulatory fit. *Psychological science,* 13(1), pp. 1-6.

Friedman, R. S. & Förster, J. (2002). The influence of approach and avoidance motor actions on creative cognition. *Journal of Experimental Social Psychology,* 38(1), pp. 41-55.

Friedrich, T., Schlauderer, S. & Overhage, S. (2019). The impact of social commerce feature richness on website stickiness through cognitive and affective factors: An experimental study. *Electronic Commerce Research and Applications,* 36(-), pp. 100861.

FT. (2018). *Vodafone mobile compaints strike*. URL: https://www.ft.com/content/038d5b94-f68d-11e5-803c-d27c7117d132 [9 April 2022].

Gabbott, M., Tsarenko, Y. & Mok, W. H. (2011). Emotional intelligence as a moderator of coping strategies and service outcomes in circumstances of service failure. *Journal of Service Research,* 14(2), pp. 234-248.

Gao, L. & Bai, X. (2014). Online consumer behaviour and its relationship to website atmospheric induced flow: Insights into online travel agencies in China. *Journal of Retailing and Consumer Services,* 21(4), pp. 653-665.

Gefen, D., Karahanna, E. & Straub, D. W. (2003a). Trust and TAM in online shopping: An integrated model. *MIS quarterly,* pp. 51-90.

Gefen, D., Karahanna, E. & Straub, D. W. (2003b). Trust and TAM in online shopping: An integrated model. *MIS quarterly,* 1(1), pp. 51-90.

Gefen, D. & Straub, D. (2003). Managing user trust in B2C e-services. *e-Service,* 2(2), pp. 7-24.

Gefen, D. & Straub, D. W. (1997). Gender differences in the perception and use of e-mail: An extension to the technology acceptance model. *MIS quarterly,* 1(1), pp. 389-400.

Gefen, D. & Straub, D. W. (2004). Consumer trust in B2C e-Commerce and the importance of social presence: experiments in e-Products and e-Services. *Omega,* 32(6), pp. 407-424.

Ghauri, P., Grønhaug, K. & Strange, R. (2020). *Research methods in business studies*, Cambridge University Press.

Goertz, G. & Mahoney, J. (2012). Concepts and measurement: Ontology and epistemology. *Social Science Information,* 51(2), pp. 205-216.

Goldkuhl, G. (2012). Pragmatism vs interpretivism in qualitative information systems research. *European journal of information systems,* 21(2), pp. 135-146.

Goodhue, D. L., Lewis, W. & Thompson, R. (2012). Does PLS have advantages for small sample size or non-normal data? *MIS quarterly,* 1(1), pp. 981-1001.

Grabner-Kräuter, S. & Kaluscha, E. A. (2003). Empirical research in on-line trust: a review and critical assessment. *International journal of human-computer studies,* 58(6), pp. 783-812.

Grisaffe, D. B. & Nguyen, H. P. (2011). Antecedents of emotional attachment to brands. *Journal of Business Research,* 64(10), pp. 1052-1059.

Ha, S. & Stoel, L. (2009). Consumer e-shopping acceptance: Antecedents in a technology acceptance model. *Journal of business research,* 62(5), pp. 565-571.

Hair, J., Black, W., Babin, B. & Anderson, R. (2019a). Multivariate Data Analysis . United Kingdom: Cengage Learning, EMEA. 8th ed.

Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2014). *Multivariate data analysis,* Harlow, Pearson Education Limited.

Hair, J. F., Risher, J. J., Sarstedt, M. & Ringle, C. M. (2019b). When to use and how to report the results of PLS-SEM. *European business review,* 31(1), pp. 2-24.

Hair, J. F., Sarstedt, M., Ringle, C. M. & Gudergan, S. P. (2018). *Advanced issues in partial least squares structural equation modeling,* Los Angeles, Sage publications.

Hair, J. F., Sarstedt, M., Ringle, C. M. & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science,* 40(3), pp. 414-433.

Hair, J. F. J., Hult, G. T. M., Ringle, C. M. & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*, Sage publications.

Hair, J. F. J., Hult, G. T. M., Ringle, C. M. & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*, Sage publications.

Hassanein, K. & Head, M. (2007). Manipulating perceived social presence through the web interface and its impact on attitude towards online shopping. *International journal of human-computer studies,* 65(8), pp. 689-708.

Haws, K. L., Dholakia, U. M. & Bearden, W. O. (2010). An assessment of chronic regulatory focus measures. *Journal of Marketing Research,* 47(5), pp. 967-982.

He, Y., Chen, Q. & Kitkuakul, S. (2018). Regulatory focus and technology acceptance: Perceived ease of use and usefulness as efficacy. *Cogent Business & Management,* 5(1), pp. 1459006.

Henseler, J., Ringle, C. M. & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science,* 43(1), pp. 115-135.

Henseler, J., Ringle, C. M. & Sarstedt, M. (2016). Testing measurement invariance of composites using partial least squares. *International marketing review,* 33(3).

Henseler, J., Ringle, C. M. & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *New challenges to international marketing.* Emerald Group Publishing Limited.

Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. *Advances in experimental social psychology.* Elsevier.

Higgins, E. T. (2005). Value from regulatory fit. *Current directions in psychological science,* 14(4), pp. 209-213.

Higgins, E. T., Friedman, R. S., Harlow, R. E., Idson, L. C., Ayduk, O. N. & Taylor, A. (2001). Achievement orientations from subjective histories of success: Promotion pride versus prevention pride. *European Journal of Social Psychology,* 31(1), pp. 3-23.

Higgins, E. T., Nakkawita, E. & Cornwell, J. F. (2020). Beyond outcomes: How regulatory focus motivates consumer goal pursuit processes. *Consumer Psychology Review,* 3(1), pp. 76-90.

Holden, M. T. & Lynch, P. (2004). Choosing the appropriate methodology: Understanding research philosophy. *The marketing review,* 4(4), pp. 397-409.

Homburg, C., Jozić, D. & Kuehnl, C. (2017). Customer experience management: toward implementing an evolving marketing concept. *Journal of the Academy of Marketing Science,* 45(3), pp. 377-401.

Hsieh, J.-Y. & Liao, P.-W. (2011). Antecedents and moderators of online shopping behavior in undergraduate students. *Social Behavior and Personality: an international journal,* 39(9), pp. 1271-1280.

Huang, M.-H., Rust, R. & Maksimovic, V. (2019). The Feeling Economy: Managing in the Next Generation of Artificial Intelligence (AI). *California Management Review,* 61(4), pp. 43-65.

Hui, M. K. & Bateson, J. E. (1991). Perceived control and the effects of crowding and consumer choice on the service experience. *Journal of consumer research,* 18(2), pp. 174-184.

Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic management journal,* 20(2), pp. 195-204.

Hunt, S. D. (1991). Positivism and Paradigm Dominance in Consumer Research: Toward Critical Pluralism and Rapprochement. *Journal of Consumer Research,* 18(1), pp. 32-44.

Inman, J. J., Dyer, J. S. & Jia, J. (1997). A generalized utility model of disappointment and regret effects on post-choice valuation. *Marketing Science,* 16(2), pp. 97-111.

Ishii, K. & Markman, K. M. (2016). Online customer service and emotional labor: An exploratory study. *Computers in Human Behavior,* 62(-), pp. 658-665.

Jani, D. & Han, H. (2015). Influence of environmental stimuli on hotel customer emotional loyalty response: Testing the moderating effect of the big five personality factors. *International journal of hospitality management,* 44(pp. 48-57.

Jarvenpaa, S. L., Tractinsky, N. & Vitale, M. (2000). Consumer trust in an Internet store. *Information technology and management,* 1(1), pp. 45-71.

Jayasimha, K. & Srivastava, H. S. (2017). Consumer advocacy: Examining the feeling and doing following a failed service encounter. *Journal of Retailing and Consumer Services,* 34(-), pp. 201-208.

Jeon, M. M., Jeong, M. & Lee, S. A. (2021). The role of customers' motivations in the relationships between e-stimuli and behavioral intention on a bed and breakfast website. *Journal of Hospitality and Tourism Technology,* 12(1), pp. 124-140.

Jia, H., Wang, Y., Ge, L., Shi, G. & Yao, S. (2012). Asymmetric effects of regulatory focus on expected desirability and feasibility of embracing self-service technologies. *Psychology & Marketing,* 29(4), pp. 209-225.

Jiang, Y. (2020). A cognitive appraisal process of customer delight: The moderating effect of place identity. *Journal of Travel Research,* 59(6), pp. 1029-1043.

Jiang, Z., Chan, J., Tan, B. C. & Chua, W. S. (2010). Effects of interactivity on website involvement and purchase intention. *Journal of the Association for Information Systems,* 11(1), pp. 1.

Jones, M. Y., Spence, M. T. & Vallaster, C. (2008). Creating emotions via B2C websites. *Business Horizons,* 51(5), pp. 419-428.

Joosten, H., Bloemer, J. & Hillebrand, B. (2016). Is more customer control of services always better? *Journal of Service Management,* 27(2), pp. 218-246.

Jung, N. Y., Kim, S. & Kim, S. (2014). Influence of consumer attitude toward online brand community on revisit intention and brand trust. *Journal of Retailing and Consumer Services,* 21(4), pp. 581-589.

Kamboj, S., Sarmah, B., Gupta, S. & Dwivedi, Y. (2018). Examining branding co-creation in brand communities on social media: Applying the paradigm of Stimulus-Organism-Response. *International Journal of Information Management,* 39(-), pp. 169-185.

Karjaluoto, H., Lehto, H., Leppäniemi, M. & Jayawardhena, C. (2008). Exploring gender influence on customer's intention to engage permission-based mobile marketing. *Electronic markets,* 18(3), pp. 242-259.

Khajehzadeh, S., Oppewal, H. & Tojib, D. (2014). Consumer responses to mobile coupons: The roles of shopping motivation and regulatory fit. *Journal of Business Research,* 67(11), pp. 2447-2455.

Kim, D. H. & Sung, Y. (2013). Gucci versus Old Navy: Interplay of brand personality and regulatory focus in advertising persuasion. *Psychology & Marketing,* 30(12), pp. 1076-1087.

Kim, D. J., Ferrin, D. L. & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision support systems,* 44(2), pp. 544-564.

Kim, E. & Tang, R. (2016). Rectifying failure of service: How customer perceptions of justice affect their emotional response and social media testimonial. *Journal of Hospitality Marketing & Management,* 25(8), pp. 897-924.

Kim, J. & Lennon, S. J. (2013). Effects of reputation and website quality on online consumers' emotion, perceived risk and purchase intention: Based on the stimulus-organism-response model. *Journal of Research in Interactive Marketing,* 7(1).

Kirk, C. P., Chiagouris, L., Lala, V. & Thomas, J. D. (2015). How do digital natives and digital immigrants respond differently to interactivity online?: A Model for Predicting Consumer Attitudes and Intentions to Use Digital Information Products. *Journal of Advertising Research,* 55(1), pp. 81-94.

Klesel, M., Schuberth, F., Niehaves, B. & Henseler, J. (2022). Multigroup analysis in information systems research using PLS-PM: A systematic investigation of approaches. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems,* 53(3), pp. 26-48.

Krishen, A. S., Berezan, O. & Raab, C. (2019). Feelings and functionality in social networking communities: A regulatory focus perspective. *Psychology & Marketing,* 36(7), pp. 675-686.

Ku, H. H., Kuo, C. C. & Kuo, T. W. (2012). The effect of scarcity on the purchase intentions of prevention and promotion motivated consumers. *Psychology & Marketing,* 29(8), pp. 541-548.

Kühn, S. & Petzer, D. J. (2018). Fostering purchase intentions toward online retailer websites in an emerging market: An SOR perspective. *Journal of Internet Commerce,* 17(3), pp. 255-282.

Kulviwat, S., Bruner II, G. C., Kumar, A., Nasco, S. A. & Clark, T. (2007). Toward a unified theory of consumer acceptance technology. *Psychology & Marketing,* 24(12), pp. 1059-1084.

Kursan Milaković, I. & Ahmad, A. (2023). Online impulse buying and cognitive appraisal theory: two countries comparison. *International Journal of Retail & Distribution Management*.

Lambillotte, L., Bart, Y. & Poncin, I. (2022). When Does Information Transparency Reduce Downside of Personalization? Role of Need for Cognition and Perceived Control. *Journal of Interactive Marketing,* 57(3), pp. 393-420.

Larsen, J. T., McGraw, A. P. & Cacioppo, J. T. (2001). Can people feel happy and sad at the same time? *Journal of personality and social psychology,* 81(4), pp. 684.

Lazarus, R. S. (1991a). Cognition and motivation in emotion. *American psychologist,* 46(4), pp. 352.

Lazarus, R. S. (1991b). *Emotion and adaptation,* Oxford, Oxford University Press on Demand.

Le, D., Pratt, M., Wang, Y., Scott, N. & Lohmann, G. (2020). How to win the consumer's heart? Exploring appraisal determinants of consumer pre-consumption emotions. *International Journal of Hospitality Management,* 88(-), pp. 102542.

Lee, A. Y. & Aaker, J. L. (2004). Bringing the frame into focus: the influence of regulatory fit on processing fluency and persuasion. *Journal of personality and social psychology,* 86(2), pp. 205.

Lee, A. Y., Keller, P. A. & Sternthal, B. (2010). Value from regulatory construal fit: The persuasive impact of fit between consumer goals and message concreteness. *Journal of Consumer Research,* 36(5), pp. 735-747.

Lee, K.-T. & Koo, D.-M. (2012). Effects of attribute and valence of e-WOM on message adoption: Moderating roles of subjective knowledge and regulatory focus. *Computers in human behavior,* 28(5), pp. 1974-1984.

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

Lee, Y., Ha, M., Kwon, S., Shim, Y. & Kim, J. (2019). Egoistic and altruistic motivation: How to induce users' willingness to help for imperfect AI. *Computers in Human Behavior,* 101(1), pp. 180-196.

Lemon, K. N. & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of marketing,* 80(6), pp. 69-96.

Leone, L., Perugini, M. & Bagozzi, R. (2005). Emotions and decision making: Regulatory focus moderates the influence of anticipated emotions on action evaluations. *Cognition & Emotion,* 19(8), pp. 1175-1198.

Li, Y., Xu, Z. & Xu, F. (2018). Perceived control and purchase intention in online shopping: The mediating role of self-efficacy. *Social Behavior and Personality: an international journal,* 46(1), pp. 99-105.

Lien, C. H. & Cao, Y. (2014). Examining WeChat users' motivations, trust, attitudes, and positive word-of-mouth: Evidence from China. *Computers in human behavior,* 41(-), pp. 104-111.

Lim, K. H., Sia, C. L., Lee, M. K. & Benbasat, I. (2006). Do I trust you online, and if so, will I buy? An empirical study of two trust-building strategies. *Journal of management information systems,* 23(2), pp. 233-266.

Lin, C.-T., Chen, C.-W., Wang, S.-J. & Lin, C.-C. (2018). The influence of impulse buying toward consumer loyalty in online shopping: a regulatory focus theory perspective. *Journal of Ambient Intelligence and Humanized Computing,* pp. 1-11.

Lin, J. C.-C. (2007). Online stickiness: its antecedents and effect on purchasing intention. *Behaviour & information technology,* 26(6), pp. 507-516.

Liu, Y. (2003). Developing a scale to measure the interactivity of websites. *Journal of advertising research,* 43(2), pp. 207-216.

Liu, Y. & Shrum, L. J. (2002). What is interactivity and is it always such a good thing? Implications of definition, person, and situation for the influence of interactivity on advertising effectiveness. *Journal of advertising,* 31(4), pp. 53-64.

Lockwood, P., Jordan, C. H. & Kunda, Z. (2002). Motivation by positive or negative role models: regulatory focus determines who will best inspire us. *Journal of personality and social psychology,* 83(4), pp. 854.

Louro, M. J., Pieters, R. & Zeelenberg, M. (2005). Negative returns on positive emotions: The influence of pride and self-regulatory goals on repurchase decisions. *Journal of consumer research,* 31(4), pp. 833-840.

Madhavan, P., Wiegmann, D. A. & Lacson, F. C. (2006). Automation failures on tasks easily performed by operators undermine trust in automated aids. *Human factors,* 48(2), pp. 241-256.

Manganari, E. E., Siomkos, G. J. & Vrechopoulos, A. P. (2014). Perceived consumer navigational control in travel websites. *Journal of Hospitality & Tourism Research,* 38(1), pp. 3-22.

MarketLine. (2017). *United Kingdom - Telecommunication Services*.

Martin, W. E. & Bridgmon, K. D. (2012). *Quantitative and statistical research methods: From hypothesis to results*, John Wiley & Sons.

Martınez-Miranda, J. & Aldea, A. (2005). Emotions in human and artificial intelligence. *Computers in Human Behavior,* 21(2), pp. 323-341.

Mavlanova, T., Benbunan-Fich, R. & Lang, G. (2016). The role of external and internal signals in E-commerce. *Decision Support Systems,* 87(-), pp. 59-68.

Mayer, R. C., Davis, J. H. & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of management review,* 20(3), pp. 709-734.

McCusker, K. & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed methods and choice based on the research. *Perfusion,* 30(7), pp. 537-542.

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

McLean, G. & Osei-Frimpong, K. (2017). Examining satisfaction with the experience during a live chat service encounter-implications for website providers. *Computers in Human Behavior,* 76(-), pp. 494-508.

McLean, G. & Osei-Frimpong, K. (2019). Chat now… Examining the variables influencing the use of online live chat. *Technological Forecasting and Social Change,* 146(-), pp. 55-67.

McMillan, S. J. & Hwang, J.-S. (2002). Measures of perceived interactivity: An exploration of the role of direction of communication, user control, and time in shaping perceptions of interactivity. *Journal of advertising,* 31(3), pp. 29-42.

Mehrabian, A. & Russell, J. A. (1974). *An approach to environmental psychology*, the MIT Press.

Mero, J. (2018). The effects of two-way communication and chat service usage on consumer attitudes in the e-commerce retailing sector. *Electronic Markets,* 28(2), pp. 205-217.

Ming-Shen, W., Chih-Chung, C., Su-Chao, C. & Yung-Her, Y. (2007). Effects of online shopping attitudes, subjective norms and control beliefs on online shopping intentions: A test of the theory of planned behaviour. *International Journal of Management,* 24(2), pp. 296.

Mintel. (2018). *MOBILE NETWORK PROVIDERS - UK - January 2018*.

Mintel. (2020). *MOBILE NETWORK PROVIDERS - UK - February 2020*.

Mintel. (2022). *Mobile Network Providers - UK - 2022*.

Morgan-Thomas, A. & Veloutsou, C. (2013). Beyond technology acceptance: Brand relationships and online brand experience. *Journal of Business Research,* 66(1), pp. 21-27.

Morgan, R. M. & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of marketing,* 58(3), pp. 20-38.

Nath, P. & McKechnie, S. (2016). Task facilitative tools, choice goals, and risk averseness: A process-view study of e-stores. *Journal of Business Research,* 69(5), pp. 1572-1576.

Neuman, L. W. (2014). *Social research methods: qualitative and quantitative approaches,* New York, Pearson.

Novak, T. P. & Hoffman, D. L. (1997). Measuring the flow experience among web users. *Interval Research Corporation,* 31(1), pp. 1-35.

Novak, T. P. & Hoffman, D. L. (2009). The fit of thinking style and situation: New measures of situation-specific experiential and rational cognition. *Journal of Consumer Research,* 36(1), pp. 56-72.

Novak, T. P., Hoffman, D. L. & Yung, Y.-F. (2000). Measuring the customer experience in online environments: A structural modeling approach. *Marketing science,* 19(1), pp. 22-42.

O'Connor, G. E., Myrden, S., Alkire, L., Lee, K., Köcher, S., Kandampully, J. & Williams, J. D. (2021). Digital health experience: A regulatory focus perspective. *Journal of Interactive Marketing,* 56(-), pp. 121-136.

Ou, Y.-C. & Verhoef, P. C. (2017). The impact of positive and negative emotions on loyalty intentions and their interactions with customer equity drivers. *Journal of Business Research,* 80(1), pp. 106-115.

Pantano, E. (2020). Non-verbal evaluation of retail service encounters through consumers' facial expressions. *Computers in Human Behavior,* 111(-), pp. 1-10.

Pappas, I. O., Kourouthanassis, P. E., Giannakos, M. N. & Chrissikopoulos, V. (2014). Shiny happy people buying: the role of emotions on personalized e-shopping. *Electronic Markets,* 24(pp. 193-206.

Parboteeah, D. V., Valacich, J. S. & Wells, J. D. (2009). The influence of website characteristics on a consumer's urge to buy impulsively. *Information systems research,* 20(1), pp. 60-78.

Partala, T. & Saari, T. (2015). Understanding the most influential user experiences in successful and unsuccessful technology adoptions. *Computers in Human Behavior,* 53(1), pp. 381-395.

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

Pavlou, P. A. & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS quarterly,* 30(1), pp. 115-143.

Peng, C. & Kim, Y. G. (2014). Application of the stimuli-organism-response (SOR) framework to online shopping behavior. *Journal of Internet Commerce,* 13(3-4), pp. 159-176.

Pham, M. T. & Higgins, E. T. (2005). Promotion and prevention in consumer decision-making: The state of the art and theoretical propositions. *Inside consumption,* -(pp. 8-43.

Phillips, D. M. & Baumgartner, H. (2002). The role of consumption emotions in the satisfaction response. *Journal of Consumer psychology,* 12(3), pp. 243-252.

Remenyi, D., Williams, B., Money, A. & Swartz, E. (1998). *Doing research in business and management: an introduction to process and method,* London, Sage.

Romani, S., Grappi, S. & Dalli, D. (2012). Emotions that drive consumers away from brands: Measuring negative emotions toward brands and their behavioral effects. *International Journal of Research in marketing,* 29(1), pp. 55-67.

Rompay, T. J. v., Galetzka, M., Pruyn, A. T. & Garcia, J. M. (2008). Human and spatial dimensions of retail density: revisiting the role of perceived control. *Psychology & Marketing,* 25(4), pp. 319-335.

Rose, S., Clark, M., Samouel, P. & Hair, N. (2012). Online customer experience in e-retailing: an empirical model of antecedents and outcomes. *Journal of retailing,* 88(2), pp. 308-322.

Roseman, I. J. (1996). Appraisal determinants of emotions: Constructing a more accurate and comprehensive theory. *Cognition & Emotion,* 10(3), pp. 241-278.

Rossiter, J. & Donovan, R. (1982). Store atmosphere: an environmental psychology approach. *Journal of Retailing,* 58(1), pp. 34-57.

Roy, R. (2017). The effects of regulatory focus and mixed valence imagery and analytical attributes on product decisions. *Marketing Intelligence & Planning,* 1(1).

Roy, R. & Ng, S. (2012). Regulatory focus and preference reversal between hedonic and utilitarian consumption. *Journal of Consumer Behaviour,* 11(1), pp. 81-88.

Ruiz-Mafe, C., Tronch, J. & Sanz-Blas, S. (2016). The role of emotions and social influences on consumer loyalty towards online travel communities. *Journal of Service Theory and Practice,* 26(5), pp. 534-558.

San-Martín, S., López-Catalán, B. & Ramón-Jerónimo, M. A. (2013). Mobile shoppers: types, drivers, and impediments. *Journal of Organizational Computing and Electronic Commerce,* 23(4), pp. 350-371.

Sarstedt, M. & Mooi, E. (2014). *A concise guide to market research: The Process, Data, and Methods Using IBM SPSS Statistics,* Berlin, Springer.

Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research methods for business students,* Harlow, Pearson Education Ltd.

Saunders, M., Lewis, P. & Thornhill, A. (2019). *Research Methods for Business Students Ebook,* Harlow, UNITED KINGDOM, Pearson Education, Limited.

Scherer, K. R., Schorr, A. & Johnstone, T. (2001). *Appraisal processes in emotion: Theory, methods, research,* Oxford, Oxford University Press.

Sekaran, U. & Bougie, R. (2016). *Research methods for business: A skill building approach,* New York, John Wiley & Sons.

Sembada, A. Y. & Koay, K. Y. (2021). How perceived behavioral control affects trust to purchase in social media stores. *Journal of Business Research,* 130(pp. 574-582.

Semin, G. R., Higgins, T., de Montes, L. G., Estourget, Y. & Valencia, J. F. (2005). Linguistic signatures of regulatory focus: how abstraction fits promotion more than prevention. *Journal of personality and social psychology,* 89(1), pp. 36.

Septianto, F. & Chiew, T. M. (2018). The effects of different, discrete positive emotions on electronic word-of-mouth. *Journal of Retailing and Consumer Services,* 44(-), pp. 1-10.

Shankar, V., Inman, J. J., Mantrala, M., Kelley, E. & Rizley, R. (2011). Innovations in shopper marketing: current insights and future research issues. *Journal of Retailing,* 87(pp. 29-42.

Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J.-H., Ting, H., Vaithilingam, S. & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. *European journal of marketing,* 53(11).

Sicilia, M., Ruiz, S. & Munuera, J. L. (2005). Effects of interactivity in a web site: The moderating effect of need for cognition. *Journal of advertising,* 34(3), pp. 31-44.

Song, J. & Qu, H. (2018). How does consumer regulatory focus impact perceived value and consumption emotions? *International Journal of Contemporary Hospitality Management,* 31(1), pp. 285-308.

Song, J. & Qu, H. (2019). How does consumer regulatory focus impact perceived value and consumption emotions? *International Journal of Contemporary Hospitality Management,* 31(1), pp. 285-308.

Song, J. H. & Zinkhan, G. M. (2008). Determinants of perceived web site interactivity. *Journal of marketing,* 72(2), pp. 99-113.

Srinivasan, S. S., Anderson, R. & Ponnavolu, K. (2002). Customer loyalty in e-commerce: an exploration of its antecedents and consequences. *Journal of retailing,* 78(1), pp. 41-50.

Stafford, R. Q., MacDonald, B. A., Li, X. & Broadbent, E. (2014). Older people's prior robot attitudes influence evaluations of a conversational robot. *International journal of social robotics,* 6(2), pp. 281-297.

Stockemer, D. (2018). *Quantitative methods for the social sciences: A Practical Introduction with examples in SPSS and Stata,* Ottawa, Springer.

Su, L., Hsu, M. K. & Marshall, K. P. (2014). Understanding the relationship of service fairness, emotions, trust, and tourist behavioral intentions at a city destination in China. *Journal of Travel & Tourism Marketing,* 31(8), pp. 1018-1038.

Suddaby, R. (2006). What Grounded Theory is Not (Editorial). *Academy of Management Journal,* 49(4), pp. 633-643.

Suh, B. & Han, I. (2003). The impact of customer trust and perception of security control on the acceptance of electronic commerce. *International Journal of electronic commerce,* 7(3), pp. 135-161.

Summers, J. O. (2019). Guidelines for conducting research and publishing in marketing: From conceptualization through the review process. *How to Get Published in the Best Marketing Journals.* Edward Elgar Publishing.

Sun, H. & Zhang, P. (2006). The role of moderating factors in user technology acceptance. *International journal of human-computer studies,* 64(2), pp. 53-78.

Sutcliffe, A. & Hart, J. (2017). Analyzing the role of interactivity in user experience. *International Journal of Human–Computer Interaction,* 33(3), pp. 229-240.

Tak, P. & Gupta, M. (2021). Examining travel mobile app attributes and its impact on consumer engagement: An application of SOR framework. *Journal of Internet Commerce,* 20(3), pp. 293-318.

Teh, G. M., Kalidas, V. & Zeeshan, M. (2014). Personality as a Moderator of SOR Model. *Review of Integrative Business and Economics Research,* 3(2), pp. 67.

Teo, H.-H., Oh, L.-B., Liu, C. & Wei, K.-K. (2003). An empirical study of the effects of interactivity on web user attitude. *International journal of human-computer studies,* 58(3), pp. 281-305.

Thongpapanl, N., Ashraf, A. R., Lapa, L. & Venkatesh, V. (2018). Differential effects of customers' regulatory fit on trust, perceived value, and m-commerce use among developing and developed countries. *Journal of International Marketing,* 26(3), pp. 22-44.

Urueña, A. & Hidalgo, A. (2016). Successful loyalty in e-complaints: FsQCA and structural equation modeling analyses. *Journal of Business Research,* 69(4), pp. 1384-1389.

Uskul, A. K., Sherman, D. K. & Fitzgibbon, J. (2009). The cultural congruency effect: Culture, regulatory focus, and the effectiveness of gain-vs. loss-framed health messages. *Journal of Experimental Social Psychology,* 45(3), pp. 535-541.

Van der Heijden, H. (2003). Factors influencing the usage of websites: the case of a generic portal in The Netherlands. *Information & management,* 40(6), pp. 541-549.

Van Noort, G., Kerkhof, P. & Fennis, B. M. (2008). The persuasiveness of online safety cues: The impact of prevention focus compatibility of Web content on consumers' risk perceptions, attitudes, and intentions. *Journal of Interactive Marketing,* 22(4), pp. 58-72.

Van Noort, G., Voorveld, H. A. & Van Reijmersdal, E. A. (2012). Interactivity in brand web sites: cognitive, affective, and behavioral responses explained by consumers' online flow experience. *Journal of Interactive Marketing,* 26(4), pp. 223-234.

Venkatesh, V., Morris, M. G., Davis, G. B. & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly,* 27(3), pp. 425-478.

Venkatesh, V., Thong, J. Y., Chan, F. K., Hu, P. J. H. & Brown, S. A. (2011). Extending the two-stage information systems continuance model: Incorporating UTAUT predictors and the role of context. *Information Systems Journal,* 21(6), pp. 527-555.

Venkatesh, V., Thong, J. Y. & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS quarterly,* 36(1), pp. 157-178.

Venkatesh, V., Thong, J. Y. & Xu, X. (2016). Unified theory of acceptance and use of technology: A synthesis and the road ahead. *Journal of the Association for Information Systems,* 17(5), pp. 328-376.

Verhoef, P. C., Lemon, K. N., Parasuraman, A., Roggeveen, A., Tsiros, M. & Schlesinger, L. A. (2009). Customer experience creation: Determinants, dynamics and management strategies. *Journal of retailing,* 85(1), pp. 31-41.

Vieira, V. A. (2013). Stimuli–organism-response framework: A meta-analytic review in the store environment. *Journal of Business research,* 66(9), pp. 1420-1426.

Vodafone. (2023). *Grow your business faster through digital transformation. Start your journey today.* URL: https://www.vodafone.co.uk/business/insights/growth-through-digital [13th of December].

Voorveld, H. A., Neijens, P. C. & Smit, E. G. (2011). The relation between actual and perceived interactivity. *Journal of Advertising,* 40(2), pp. 77-92.

Walczuch, R. & Lundgren, H. (2004). Psychological antecedents of institution-based consumer trust in e-retailing. *Information & Management,* 42(1), pp. 159-177.

Wang, E. S.-T. (2014). Perceived control and gender difference on the relationship between trialability and intent to play new online games. *Computers in Human Behavior,* 30(-), pp. 315-320.

Wang, J. & Lee, A. Y. (2006). The role of regulatory focus in preference construction. *Journal of Marketing research,* 43(1), pp. 28-38.

Wang, Y. J., Minor, M. S. & Wei, J. (2011). Aesthetics and the online shopping environment: Understanding consumer responses. *Journal of Retailing,* 87(1), pp. 46-58.

Watson, D., Clark, L. A. & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of personality and social psychology,* 54(6), pp. 1063.

Werth, L. & Foerster, J. (2007). How regulatory focus influences consumer behavior. *European journal of social psychology,* 37(1), pp. 33-51.

Williams, M. (2001). In whom we trust: Group membership as an affective context for trust development. *Academy of management review,* 26(3), pp. 377-396.

Williams, P. & Aaker, J. L. (2002). Can mixed emotions peacefully coexist? *Journal of consumer research,* 28(4), pp. 636-649.

Wirtz, J. & Lwin, M. O. (2009). Regulatory focus theory, trust, and privacy concern. *Journal of Service Research,* 12(2), pp. 190-207.

Wu, G. (2005). The mediating role of perceived interactivity in the effect of actual interactivity on attitude toward the website. *Journal of Interactive advertising,* 5(2), pp. 29-39.

Wu, G., Hu, X. & Wu, Y. (2010). Effects of perceived interactivity, perceived web assurance and disposition to trust on initial online trust. *Journal of Computer-Mediated Communication,* 16(1), pp. 1-26.

Wu, G. & Wu, G. (2006). Conceptualizing and measuring the perceived interactivity of websites. *Journal of Current Issues & Research in Advertising,* 28(1), pp. 87-104.

Wu, J.-H. & Wang, S.-C. (2005). What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Information & management,* 42(5), pp. 719-729.

Wu, J., Huang, L. & Zhao, J. L. (2019). Operationalizing regulatory focus in the digital age: Evidence from an e-commerce context. *MIS quarterly,* 43(3), pp. 745-764.

Wu, L.-L., Wang, Y.-T., Wei, C.-H. & Yeh, M.-Y. (2015). Controlling information flow in online information seeking: The moderating effects of utilitarian and hedonic consumers. *Electronic Commerce Research and Applications,* 14(6), pp. 603-615.

Wu, L. (2019). Website interactivity may compensate for consumers' reduced control in E-Commerce. *Journal of Retailing and Consumer Services,* 49(-), pp. 253-266.

Wu, L. L. & Lin, J. Y. (2006). The quality of consumers' decision-making in the environment of e-commerce. *Psychology & Marketing,* 23(4), pp. 297-311.

Wu, L. L. & Lin, J. Y. (2012). The match between information control and motivation in the online context. *Psychology & Marketing,* 29(11), pp. 822-835.

Wu, W.-Y., Lee, C.-L., Fu, C.-S. & Wang, H.-C. (2013). How can online store layout design and atmosphere influence consumer shopping intention on a website? *International journal of retail & distribution management,* 42(1), pp. 4-24.

Xu-Priour, D. L., Cliquet, G. & Palmer, A. (2017). The influence of buyers' time orientation on online shopping behavior: A typology. *International Journal of Electronic Commerce,* 21(3), pp. 299-333.

Yen, C. & Chiang, M.-C. (2020). Trust me, if you can: a study on the factors that influence consumers' purchase intention triggered by chatbots based on brain image evidence and self-reported assessments. *Behaviour & Information Technology,* 40(11), pp. 1-18.

Zeithaml, V. A., Bitner, M. J., Gremler, D. D. & Pandit, A. (2006). *Services marketing: Integrating customer focus across the firm,* New York, McGraw Hill.

Zhang, J. & Mao, E. (2020). Cash, credit, or phone? An empirical study on the adoption of mobile payments in the United States. *Psychology & Marketing,* 37(1), pp. 87-98.

Zhang, M., Ren, C., Wang, G. A. & He, Z. (2018). The impact of channel integration on consumer responses in omni-channel retailing: The mediating effect of consumer empowerment. *Electronic Commerce Research and Applications,* 28(-), pp. 181-193.

Zhao, X., Lynch Jr, J. G. & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of consumer research,* 37(2), pp. 197-206.

Zhu, P., Liu, Z., Li, X., Jiang, X. & Zhu, M. X. (2023). The influences of livestreaming on online purchase intention: examining platform characteristics and consumer psychology. *Industrial Management & Data Systems,* 123(3), pp. 862-885.

Zhu, R. & Meyers-Levy, J. (2007). Exploring the cognitive mechanism that underlies regulatory focus effects. *Journal of Consumer Research,* 34(1), pp. 89-96.

Zikmund, W. G., Carr, J. C. & Griffin, M. (2013). *Business Research Methods,* Mason, Cengage Learning.

Zolait, A. H. S. (2014). The nature and components of perceived behavioural control as an element of theory of planned behaviour. *Behaviour & Information Technology,* 33(1), pp. 65-85.

Appendices

Appendix 1. Practical example of collaboration with Vodafone UK

The following section of the thesis focuses on presenting the collaboration project between Vodafone and the researcher. Originally, the researcher has planned to work with Vodafone to collect the main data for the research. However, due to complications and other unfortunate circumstances which are discussed in Chapter 4, the researcher had to collect data using Qualtrics. Nonetheless, Vodafone User Experience Research Team was still interested in the core framework of this research and had asked the researcher to collaborate on a different project which is discussed in this section.

Introduction

Mindsets project is a collaboration between Vodafone User Experience (UX) Research Team and the researcher on investigating customers' mindsets when interacting with the Vodafone website. The project aim was to establish a quantifying tool which Vodafone could use to further understand their customers' needs and online behaviours. Specifically, Vodafone and the researcher had developed a survey element which has been later adopted by Vodafone's internal teams to create customer mindsets. Based on the results of the survey, the researcher and later Vodafone UX team would create 2-3 mindsets based on customers' personality traits, website interactions, and loyalty intentions. This in turn will be used to adopt new product propositions, adjust online interactions, or to further understand Vodafone customers and their needs. Currently, the survey tool is used by Vodafone internal UX and Service Design team to develop new product offers grounded in customers' mindsets. Potentially in the future, Vodafone has plans to adopt this survey element on a live website to alter online interactions based on mindsets.

The project has been conducted between October 2021 and April 2022. The survey had been structured following the researcher's main framework where the researcher theorised that depending on customers personality characteristics', customers would prefer different level of control during online interactions. Following extensive literature analysis and brainstorming sessions with Vodafone UX Research Team, the survey structure had been agreed on. Particularly, it has been decided to divide the survey into three main sections: customers' personality traits, website interactions' preferences, and loyalty intentions towards a firm. Total of three pilots have been conducted to identify the final measures for the survey tool. Data collection and analysis of those pilots are discussed in the next section.

Data collection and analysis

This sub-section aims to discuss data collection and analysis for mindsets project. As Vodafone aimed to create a quantifying tool, it has been decided to adopt quantitative research methods and to use survey as a research design. Online customers have been chosen as a unit of analysis and probability sampling has been applied.

Originally, it has been suggested to use a sample of only Vodafone customers. However, to ensure that findings of the survey could be applied for potential new products and customers, it has been decided to use a sample of customers from different mobile providers. Additionally, respondents had to satisfy the following conditions before answering the survey:

- Manage their mobile phone plan themselves
- Have an active mobile phone contract

Data collection for this project has begun by conducting the first pilot with assessing respondents on 8 dimensions on personality trait, 5 dimensions on website interactions, and loyalty intentions. Vodafone handled distribution of the survey and collected 100 responses via UzerZoom platform. The main aim of the first pilot was to further understand how different personality traits' dimensions correlate with website interactions' preferences and loyalty intentions. Therefore, simple statistical analysis has been performed. Firstly, reliability and validity of measures have been assessed. Statistical analysis has shown that all scales showed acceptable levels of reliability as predicted. In addition, during this pilot, the researcher had introduced a new measurement of regulatory focus by Lockwood *et al.* (2002) which is later adopted in all studies for this research. However, the first pilot has shown several limitations. Firstly, some constructs showed high level of multicollinearity indicating difference between constructs was not sufficient. Secondly, the survey has consisted of large matrix questions that had triggered participants fatigue and resulted in many straight-lining responses. Hence, it has been decided to re-evaluate the main constructs and to shorten the final survey.

Next, pilot 2 and pilot 3 have been conducted between January 2022 and March 2022 and had a sample of 170 participants together. The final survey consisted of three main blocks: personality characteristics, website interactions, and loyalty intentions. Personality characteristics included in this project was: regulatory focus, trustworthiness, impulsiveness, and proactive personality measure. Website interactions included items measuring control

preferences, value consciousness, and deliberative processing. All constructs have been measured on Likert matrix scale. Simple statistical analysis and k-clustering have been performed to analyse the data. Similarly to the first pilot, all measures had shown high level of reliability and validity with no multicollinearity between constructs. Prior to running the main clustering analysis, Pearson correlation matrix has been examined. Pearson correlation matrix reveals that several constructs have high correlations between each other. For instance, it can be observed that preferences for control and regulatory focus has a high correlation index indicating that there is a linear relationships between two, $r(102) = .553$, $p < .001$.

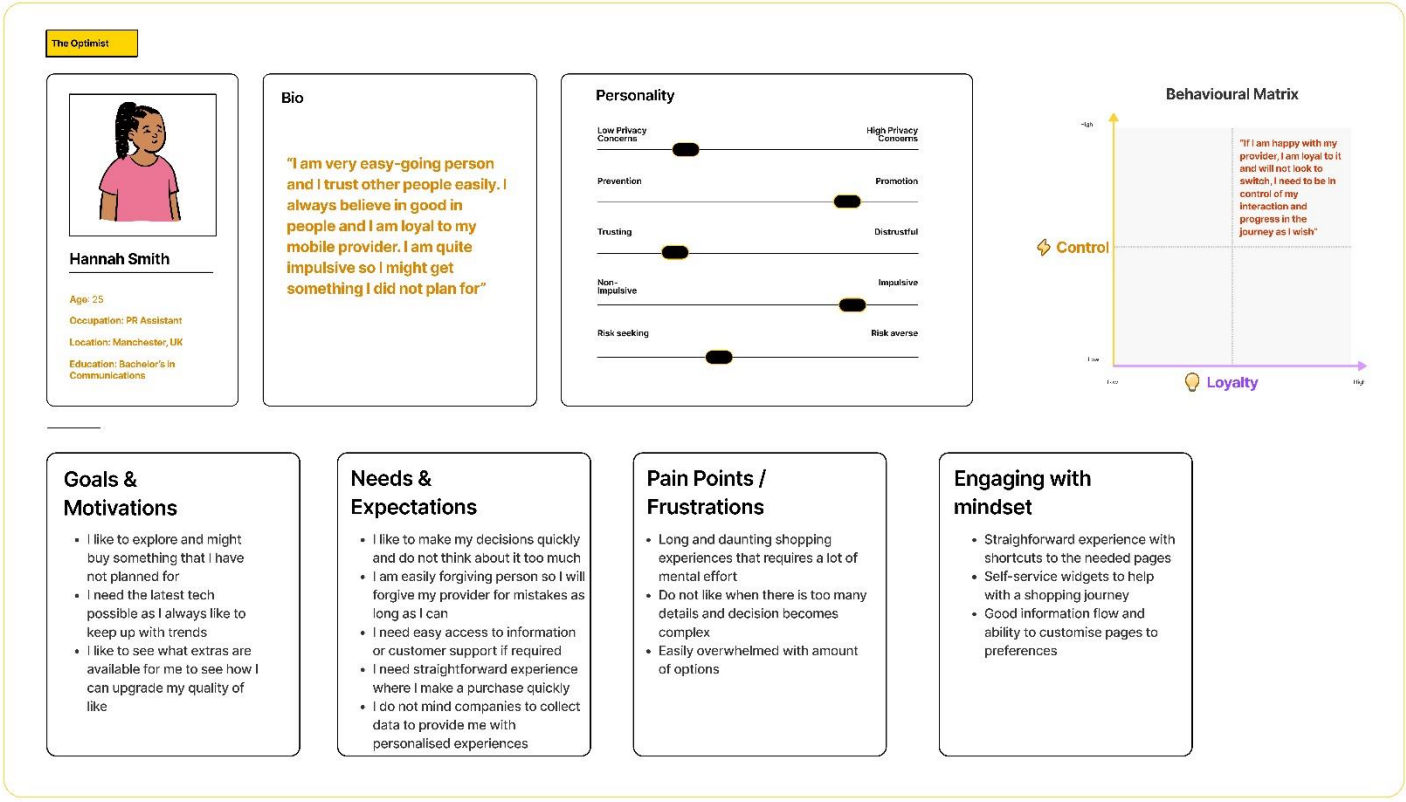
Following correlation analysis, k-clustering analysis has recognised two main clusters with significant statistical difference, $p < .005$. K-clustering analysis typically employs clustering observations based on k-means value. To ensure that clusters that has been created through k-clustering are valid and reliable, cross-tabulation and ANOVAs analysis have been performed. Both analysis have revealed that clusters were reliable and were significantly different amongst each other, $F > 1$, $p < .001$.

After analysis of two pilots have been concluded, the researcher and Vodafone UX research team had another brainstorming sessions based on analysis results. Following the brainstorming sessions, final questionnaire has been approved and adopted. The usage of questionnaire within the Vodafone UX research team is discussed in the next sub-section.

Implementation

After the final version of the survey has been approved, Vodafone UX research team has started to implement it in their internal research practices. Hereafter, the mindset survey has been used by Vodafone UX researchers in range of studies on exploring customers attitudes towards a particular product, proposition, or experience. The output of the survey has been used to create customers mindsets to better understand how to tailor future Vodafone propositions. Due to NDA the researcher is not allowed to present the direct outputs of how the survey has been used internally to develop future Vodafone propositions and products. However, the researcher had created customer mindsets based on the survey as an example for the future usage as presented on below. As presented below, clusters that are created through statistical analysis are later transformed into customers profiles. Those customers profiles are then taken further by Service Designers within Vodafone UX team who create story-boards focusing on online customer experiences. Furthermore, customers mindsets establishment through survey data is also used in further exploring customers attitudes and behaviours towards a specific product or propositions.

Running mindset project not only helped Vodafone to further understand its customers and how to tailor propositions, it has also given the researcher valuable insights for the conceptual framework of this PhD. For instance, the analysis of first pilot has shown that prevention-orientated customers have higher loyalty intentions towards a firm if they have a stronger preference for control during online interactions, $F(1,97) = 5.093$, $p = .026$. However, further analysis has demonstrated that for both promotion and prevention participants, flow would be stronger when exposed to higher level of control during online interactions, $F(1,97) = 18.239$ and $F(1,97) = 3.123$, respectively. Therefore, the data from mindset project surveys have significantly assisted the researcher in development of final questionnaire and in re-assessment of conceptual model.



Conclusion

To conclude, conducting a mindset project together with Vodafone UX Research team has helped the researcher to develop further quantitative methods skills as well as it has provided valuable insights for the main data collection process. As a result of this collaboration, Vodafone is able to better profile customers and to ensure that new products, propositions and experiences are tailored to customers' needs. Furthermore, the survey creation was only the first step of a larger project to understand customers' needs and behaviours. Specifically, in the future, it is planned to release mindset survey on the Vodafone website to deliver online interactions based on customers mindsets and profiles. Nonetheless, so far mindset project has been fully implemented by internal teams at Vodafone. All in all, conducting research in collaboration with Vodafone has been an incredible experience and had provided the researcher with advantageous insights on direction of the PhD research.

Appendix 2. Pilot 1 experimental materials and measurement scales

Questionnaire

Thank you for taking part in this research project. The purpose of this study is to understand customers' preferences and opinions when interacting with customer support agents.

Your participation is greatly appreciated as it will help to further understand how to deliver valuable customer experiences. The survey is divided into four sections. Section one asks questions related to your beliefs and feelings in life. Then, you will be presented with a fictitious telecom company (Mobileverse). Section two focuses on your feelings and opinions towards Mobileverse. Section three provides a video scenario portraying interactions with customer service agents. Section four refers to your feelings, opinions and future behaviours towards Mobileverse.

It is important to note that your responses will be kept confidential. Your participation in this research is voluntary and you can withdraw at any point during this study. All responses are anonymous. This project has been reviewed and approved by University of Reading Ethics Committee. The questionnaire should take approximately 20 minutes to complete.

By clicking the button below, you confirm:

- Your participation in the study is voluntary.
- You are 18 years of age.
- You are aware that you may choose to terminate your participation at any time for any reason.

This research project is a part a doctoral study and it is conducted by a PhD Researcher at Henley Business School. If you have any further questions about the questionnaire or the project, please get in-touch with Aleksandra Petelina, Doctoral Researcher at Henley Business School, University of Reading, email: a.petelina@pgr.reading.ac.uk

Section 1: General beliefs and feelings in life

Please read the following questions and indicate which answer best describes your own beliefs and feelings, ranging from (1) – Never to (5) – Very Often.

Regulatory focus (Higgins *et al.*, 2001)

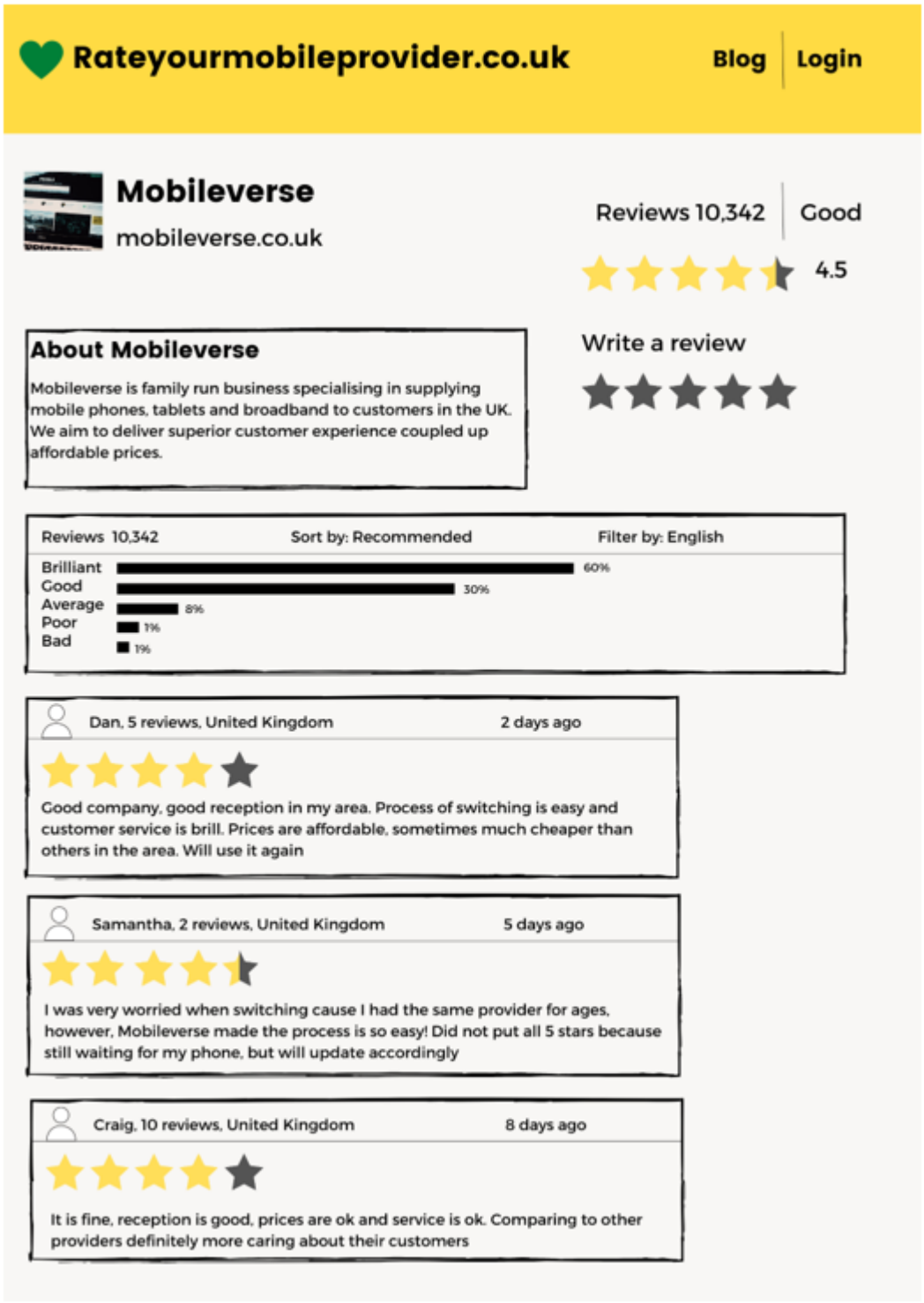
	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Very Often (5)
Compared to most people, are you typically unable to get what you want out of life?					
Growing up, would you ever "cross the line" by doing things that your parents would not tolerate?					
How often have you accomplished things that got you "psyched"' to work even harder?					
Did you get on your parents' nerves often when you were growing up?					
How often did you obey rules and regulations that were established by your parents?					
Growing up, did you ever act in ways that your parents thought were objectionable?					
Do you often do well at different things that you try?					
Has not being careful enough has gotten you into trouble at times?					
When it comes to achieving things that are important to you, do you find that you don't perform as well as you ideally would like to do?					
Do you feel like you have made progress toward being successful in your life?					
Have you found very few hobbies or activities in your life that capture your interest or motivate you to put effort into them?					

Section 2: Your views and opinions towards Mobileverse

The next questions in this section are focused on understanding your opinions towards Mobileverse.

You are going to be presented with a screenshot from a review website about a mobile provider. Please imagine that it is your current mobile provider and you have decided to read up people's reviews about it to see if you would like to stay with the company or switch to someone else. Please read carefully through the page.

Here, participants are assigned to different screenshots of a website



Picture 1: Good mobile provider

Picture 2: Bad mobile provider

Picture 3: Neutral mobile provider

Based on the poster above, please indicate to what extent you agree or disagree with the following statements, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Customers positively reviewed Mobileverse.					
Mobileverse has been reviewed as a bad company by its customers.					
Mobileverse only received neutral reviews by its customers.					

Based on the information that you have received, please indicate to what extent you agree or disagree with the following statements, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.

Trust (Gefen *et al.*, 2003)

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
I think that Mobileverse is honest.					
I think Mobileverse is trustworthy.					
I think Mobileverse cares about customers.					
I think that Mobileverse would provide me with good service.					

Emotions (Watson *et al.*, 1988):

When thinking about Mobileverse, I feel...

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
1. Interested					
2. Distressed					
3. Excited					
4. Upset					
5. Strong					
6. Guilty					
7. Scared					
8. Hostile					
9. Enthusiastic					
10. Proud					
11. Irritable					
12. Alert					
13. Ashamed					
14. Inspired					
15. Nervous					
16. Determined					
17. Attentive					
18. Jittery					
19. Active					
20. Afraid					

Section 3: Interaction with customer service agents

Scenario 1:

This section focuses on exploring your views on customer service scenarios. Imagine that you are a customer of Mobileverse and want to upgrade to the latest phone.

You are sitting at home, and you have received a text message that your phone contract is finished, and you can now buy a new phone. You have decided that you want a new phone now. You know what model you want and want it to be delivered straightaway. You have gone on your company's website and decided to take a look what available. You have browsed for a little while but need more information about offers available for you. You have found live chat option on the website and have clicked begin chat. The following message pops-up:

> *Thank you for choosing live-chat option. Unfortunately, all our customer service advisors are busy at the moment. The minimum waiting time is 15 minutes.* ***If you do not want to wait around****, our friendly virtual agent* ***would love to help you with your enquiry****. While a customer service advisor is helping other customers, our virtual agent* ***will try to help you to resolve*** *your issue. It will take all the vital information and* ***automatically transfer you*** *to a customer service advisor* ***if necessary****. Please tell us in a few words a reason of contacting us today.*

You have clicked on tell a reason why and have been transferred to a virtual agent.

Below, you can find a link, which will show interaction process with live-chat agents.

Gain seeking and low control (youtube.com)

Scenario 2:

This section focuses on exploring your views on customer service scenarios. Imagine that you are a customer of Mobileverse and want to upgrade to the latest phone.

You are sitting at home, and you have received a text message that your phone contract is finished, and you can now buy a new phone. You have decided that you want a new phone now. You know what model you want and want it to be delivered straightaway. You have gone on your company's website and decided to take a look what available. You have browsed for a little while but need more information about offers available for you. You have found live chat option on the website and have clicked begin chat. The following message pops-up:

> *Thank you for choosing live chat option. Unfortunately, all our customer service advisors are busy at the moment. The minimum waiting time is 15 minutes. However, our friendly virtual agent* ***would love to prevent you*** *from waiting. While a customer service advisor is helping other customers, our virtual agent* ***will try to solve your issue*** *and* ***you can ask to get transferred*** *to our customer service advisor* ***at any point****. Please tell us in a few words a reason of contacting us today.*

You have clicked on tell a reason why and have been transferred to a virtual agent.

Below, you can find a link, which will show interaction process with live-chat agents.

Gain-seeking + High Control (youtube.com)

Based on the situation above, please indicate to what extent you agree or disagree with the following statements, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
The situation was realistic.					
It was easy for me to understand what happened in the situation.					
I could easily relate to the situation in the video.					

Based on the situation above, please indicate to what extent you agree or disagree with the following statements, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
The customer in the video was in control of the conversation and could move to a human agent at any point.					
Automated system was in control of a conversation and only a chatbot decided when the customer needed to be transferred to a human.					

Control perceptions (Liu, 2003; McMillan and Hwang, 2002; Wu, 2005)

If I were a customer interacting with Mobileverse's live-chat agents…

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
I would always know what I was doing.					
I would always be able to say what I wanted to say.					
I would be delighted to be able to choose what I could do.					
I would feel that I would have a great deal of control over my experience with Mobileverse.					
I would be able to choose freely what I would have wanted to say.					
I would have absolutely no control.					
I would decide my actions based on kind of experience I got.					

Based on the video that you have just watched, please indicate to what extent you agree or disagree with the following statements about the communication channel, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.

Responsiveness (Liu, 2003; McMillan and Hwang, 2002; Wu, 2005)

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
Mobileverse processed input very quickly.					
Getting information was fast.					
I felt the customer was able to obtain the information without any delay.					
I felt the customer was getting instantaneous information from Mobileverse.					
Mobileverse was very slow in responding to request.					
Mobileverse answered question immediately.					

Section 4: Your feelings, opinions and future behaviours towards Mobileverse

Thinking back to Mobileverse and situation that you have just watched, please indicate to what extent you agree or disagree with the following statements, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.

Trust (Gefen *et al.*, 2003)

After watching the video, I think…

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
Mobileverse is honest.					
Mobileverse is trustworthy.					
Mobileverse cares about customers.					
Mobileverse would provide me with good service.					

Emotions (Watson *et al.*, 1988):

Thinking back to Mobileverse and situation that you have just watched, please indicate to what extent you agree or disagree with the following statements, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.

When thinking about Mobileverse, I feel…

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
1. Interested					
2. Distressed					
3. Excited					
4. Upset					
5. Strong					
6. Guilty					
7. Scared					
8. Hostile					
9. Enthusiastic					
10. Proud					
11. Irritable					
12. Alert					
13. Ashamed					
14. Inspired					
15. Nervous					
16. Determined					
17. Attentive					
18. Jittery					
19. Active					
20. Afraid					

Intended behaviour (Srinivasan *et al.*, 2002; Mero, 2018)

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
I would encourage friends and relatives to do business with Mobileverse.					
I would say positive things about Mobileverse to other people.					
I would consider Mobileverse as first choice to buy mobile products/services.					
It is likely that I would repurchase from Mobileverse in the future.					

Demographics

Which category below includes your age?

18 - 24
25 - 34
35 - 44
45 - 54
55 - 64
65 - 74
75+

What is your gender?

Male
Female
Other
Prefer not to say

What is your occupation?
Full-time employed
Part-time employed
Student
Unemployed
Retired
Other (please specify)

If you had a choice between the two, would you rather: (Waytz *et al.*, 2014)

- Drive a car yourself
- Have an autonomous driving car

Appendix 3. Pilot 1 Measurement scales descriptives, factor loadings, and reliability measures

FACTOR	MEAN (SD)	SKEWNESS	KURTOSIS	FACTOR LOADING	CR	AVE
PROMOTION FOCUS (*α = .63*)					.74	.49
PM1 (Q1)	3.44 (.87)	-.321	-.185	.785		
PM2 (Q9)	3.07 (.95)	-.461	-.339	.705		
PM3 (Q10)	3.85 (.88)	-.548	.249	.597		
PREVENTION FOCUS (*α = .77*)					.85	.59
PV1 (Q2)	3.25 (1.04)	-.367	-.241	.840		
PV2 (Q4)	3.06 (1.02)	-.263	-.574	.751		
PV3 (Q5)	3.97 (.88)	-.694	-.054	.647		
PV4 (Q6)	3.26 (.96)	-.598	.157	.812		
RESPONSIVENESS *(α = .88)*					.90	.60
RSP1	4.09 (.84)	-.886	.443	.766		
RSP2	3.92 (1.01)	-.949	.291	.818		
RSP3	3.45 (1.22)	-.389	-1.085	.780		
RSP4	3.61 (1.08)	-.523	-.648	.786		
RSP5	4.00 (.84)	-.588	-.175	.718		
RSP6	3.61 (1.06)	-.708	-.208	.759		
PERCEIVED CONTROL (*α = .82*)					.84	.48
CNT1	3.48 (1.10)	-.510	-.727	.576		
CNT2	3.27 (1.18)	-.374	-.960	.715		
CNT3	3.59 (.99)	-.500	-.066	.684		
CNT4	3.08 (1.09)	-.064	-.875	.772		
CNT5	3.23 (1.22)	-.217	-1.119	.784		
CNT6	3.79 (1.08)	-.506	-.898	.576		
POST-INTERACTION TRUST (*α = .83*)					.84	.49
POSTTR1	3.49 (.70)	-.021	-.215	.920		
POSTTR2	3.43 (.72)	-.106	-.294	.852		
POSTTR3	3.50 (.92)	-.459	-.407	.460		
POSTTR4	3.43 (.83)	-.421	-.377	.401		
POST-INTERACTION POSITIVE EMOTIONS *(α = .89)*					.94	.52
POSTPE1	3.29 (.91)	-.923	.057	.502		
POSTPE2	2.55 (.95)	-.155	-.846	.695		
POSTPE3	2.39 (.99)	-.289	-1.19	.667		
POSTPE4	2.54 (1.03)	-.132	-.842	.790		
POSTPE5	2.17 (.96)	-.124	-1.546	.721		
POSTPE6	2.32 (1.04)	-.117	-1.324	.835		
POSTPE7	2.55 (1.04)	-.199	-.734	.728		
POSTPE8	2.88 (1.09)	-.445	-.718	.732		
POSTPE9	2.55 (1.05)	-.299	-1.01	.786		
POST-INTERACTION NEGATIVE EMOTIONS *(α = .92)*					.94	.59
POSTNE1	2.30 (1.12)	.283	-1.093	.782		
POSTNE2	2.13 (1.05)	.444	-.924	.871		
POSTNE3	1.75 (.87)	.560	-1.319	.666		
POSTNE4	1.77 (.91)	.722	-.819	.781		
POSTNE5	2.06 (1.13)	.613	-.884	.817		
POSTNE6	2.52 (1.27)	.211	-1.207	.742		
POSTNE7	1.80 (.92)	.607	-1.116	.781		
POSTNE8	2.25 (1.13)	.389	-1.045	.684		
POSTNE9	2.12 (1.09)	.451	-.953	.754		
POSTNE10	1.89 (.95)	.582	-.946	.803		
INTENDED BEHAVIOUR *(α = .90)*					.87	.72
BEH1	2.95 (.92)	-.364	-.457	.852		
BEH2	3.15 (.94)	-.676	-.368	.840		
BEH3	2.81 (.94)	-.271	-.894	.807		
BEH4	2.63 (1.04)	-.029	-.808	.834		

Appendix 4. Pilot 2 experimental materials and measurement scales

First page: Introduction

Hi! Welcome to the research study!

Thank you for your interest in participating in this study! The following study is about understanding your feelings and experiences when buying a mobile phone contract on the Vodafone website.

This project is a part of a doctoral research project conducted by a PhD researcher at Henley Business School, University of Reading, in collaboration with Vodafone. All the results and findings will only be used for academic research purposes.

There are no wrong answers - we want your honest and thoughtful feedback to help understand how the process of buying a phone can be improved. Please be as honest as possible with your answers - don't worry, you won't offend anybody!

Your responses **will be kept confidential.** Your participation in this research is **voluntary** and you can withdraw at any point during this study. All responses are **anonymous.** The questionnaire should take approximately **15 minutes to complete**.

By clicking the button below, **you confirm:**

- Your participation in the study is voluntary.
- You are at least 18 years of age.
- You are aware that you may choose to terminate your participation at any time for any reason.

Ready? Click "**Agree and Continue**" to start!

Second page: Consent

We care about the privacy of your data.

In this study we will collect your behavioural data for a User Experience research project and Academic purposes.

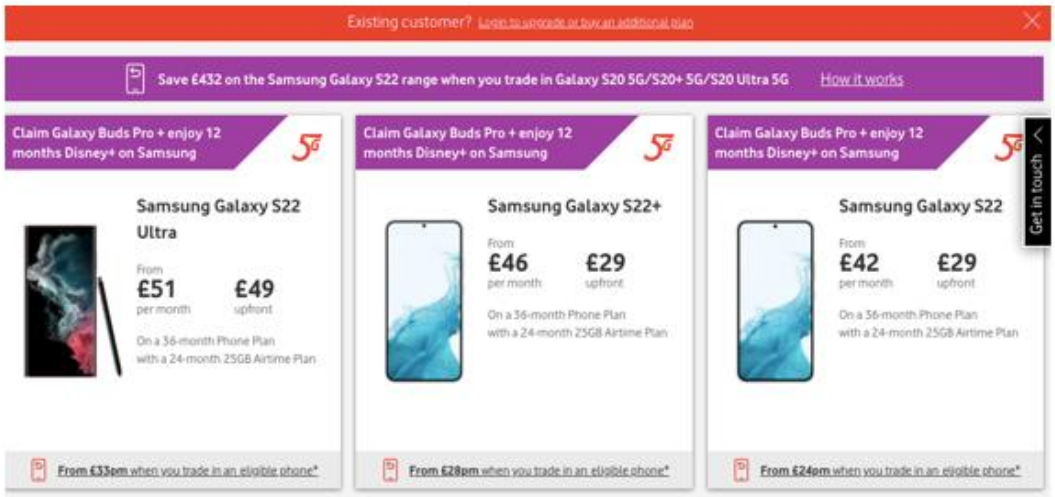
This information will be encrypted and protected in accordance with security best practices. If you want to know more about our security measures or how your data will be stored and used, our full Privacy Policy is available on our website.

I understand that my data will be collected for a User Experience research project and results will be used for academic purposes.

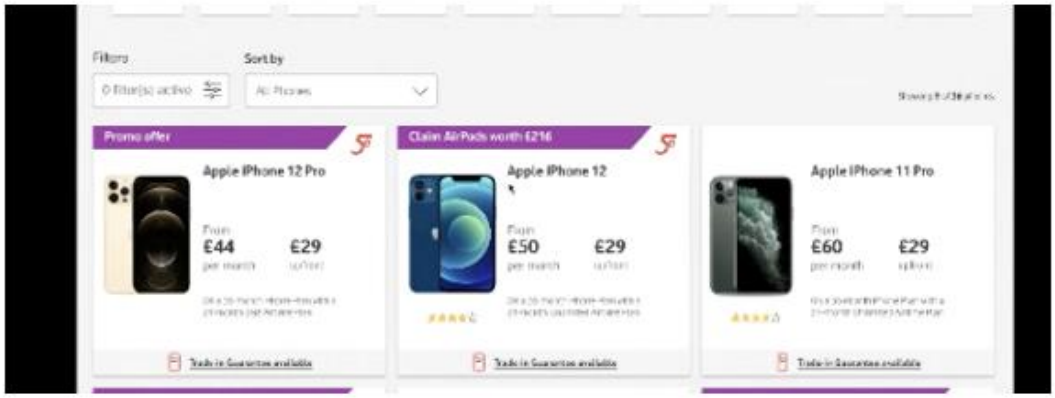
Manipulation

Manipulation of introducing filter by / sort by function on the grid when picking the phone.

Default option: sorted by recommended



Manipulation:



Manipulation check questions

- Did you see **filter** or **sort by option** when selecting your phone?
  - Yes
  - No

- If yes, did you use filter or sort by option when selecting your phone?
  - Yes
  - No

- Please indicate to what extent you agree or disagree with the following statements, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.
  - I think the Vodafone website is highly interactive as it let me decide which information I can see through integrating filter, or sort by function
  - By providing me with filter / sort by function, I felt in control over my interaction with the Vodafone website

Responsiveness (Liu, 2003; McMillan and Hwang, 2002; Wu, 2005) & Control perceptions (Liu, 2003; McMillan and Hwang, 2002; Wu, 2005; Zhang et al., 2018)

Thinking about your interaction with the Vodafone website today, please indicate to what extent you agree or disagree with the following statements about the communication channel, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.

	Strongly Disagree (1)	**Disagree (2)**	**Neither Agree nor Disagree (3)**	**Agree (4)**	**Strongly Agree (5)**
The Vodafone website processed my input very quickly.					
Getting information was fast.					
I was able to obtain the information I wanted without any delay.					
While navigating on the Vodafone website, I felt in control.					
While on the Vodafone website, I could choose freely what I wanted to see.					
I felt that I had a great deal of control over my experience with the Vodafone website.					
While on Vodafone's website, I was delighted to be able to choose what I could do.					

Your feelings, opinions and future behaviours towards Vodafone

Based on browsing Vodafone website today, please indicate to what extent you agree or disagree with the following statements, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.

Trust (Gefen et al., 2003)

After browsing the plans on the Vodafone website, I think...

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
Vodafone is honest.					
Vodafone is trustworthy.					
Vodafone cares about customers.					
Vodafone provides me with good service.					
I trust Vodafone.					

Emotions (Watson et al., 1988):

Based on your interaction with Vodafone website today, please indicate to what extent you agree or disagree with the following statements, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.

When thinking about Vodafone, I feel...

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
1. Interested					
2. Distressed					
3. Excited					
4. Upset					
5. Strong					
6. Guilty					
7. Scared					
8. Hostile					
9. Enthusiastic					
10. Proud					
11. Irritable					
12. Alert					
13. Ashamed					
14. Inspired					
15. Nervous					
16. Determined					
17. Attentive					
18. Jittery					
19. Active					
20. Afraid					

Intended Behaviour (Srinivasan et al., 2002; Mero, 2018)

Thinking back to Vodafone and today's interaction with the website, please indicate to what extent you agree or disagree with the following statements, ranging from (1) – Strongly Disagree to (5) – Strongly Agree.

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
I would encourage friends and relatives to buy a mobile phone plan from the Vodafone website.					
I would say positive things about buying a mobile phone plan from the Vodafone website to other people.					
I would recommend Vodafone, and their website to anyone who is looking for a new mobile phone plan.					
When choosing a new mobile phone plan, I would consider the Vodafone website as my first choice.					
I would continue to buy from Vodafone in the future, even if other alternatives are available.					
I would talk positively about Vodafone in the future.					

Personal preferences

Now, we would like to know a little bit more about you. Please read the following questions and indicate which answer best describes your own beliefs and feelings, ranging from (1) – Very Untrue of Me to (5) – Very True of Me.

Regulatory focus (Lockwood et al., 2002; Song and Qu, 2019).

	Very Untrue of Me (1)	Untrue of Me (2)	Neutral (3)	True of Me (4)	Very True of Me (5)
I frequently imagine how I will achieve my hopes and aspirations.					
I often think about the person I would ideally like to be in the future.					
I typically focus on the success I hope to achieve in the future.					
In general, I am focused on achieving positive outcomes in my life.					
I often imagine myself experiencing good things that I hope will happen to me.					
I frequently think about how I can prevent failures in my life.					
I am anxious that I will fall short of my responsibilities and obligations.					
I often imagine myself experiencing bad things that I fear might happen to me.					
In general, I am focused on preventing negative events in my life.					

Demographics

Which category below includes your age?

18 - 24
25 - 34
35 - 44
45 - 54
55 - 64
65 - 74
75+

What is your gender?

Male
Female
Other
Prefer not to say

What is your occupation?
Full-time employed
Part-time employed
Student
Unemployed
Retired
Other (please specify)

If you had a choice between the two, would you rather: (Waytz *et al.*, 2014)

- Drive a car yourself
- Have an autonomous driving car

Appendix 5. Welcome & Consent Form

Questionnaire

Welcome to the research study! Thank you for taking part in this study. The purpose of the research is to understand consumers' preferences and opinions when purchasing a mobile phone plan from a website. This project is a part of a doctoral research conducted by a PhD researcher at Henley Business School, University of Reading. All the results and findings will only be used for academic research purposes.

Your participation is greatly appreciated as it will help to further understand how to deliver valuable customer experience online. The survey is divided into three sections. Section one focuses on exploring your feelings and opinions when buying a mobile phone plan online. Section two refers to your feelings, opinions and intended behaviours towards your mobile network provider. Section three asks questions related to your general beliefs and feelings in life.

It is important to note that your responses will be kept confidential. Your participation in this research is voluntary and you can withdraw at any point during this study. All responses are anonymous. This project has been reviewed and approved by University of Reading Ethics Committee. The questionnaire should take approximately 15 minutes to complete.

By clicking the button below, **you confirm:**

- Your participation in the study is voluntary.
- You are at least 18 years of age.
- You are aware that you can end your participation at any time for any reason.

If you have any further questions about the questionnaire or the project, please get in-touch with Aleksandra Walsh, Doctoral Researcher at Henley Business School, University of Reading, email: a.walsh@pgr.reading.ac.uk

Appendix 6. Multivariate outliers statistics

CNTR1	CNTR2	CNTR3	CNTR4	TR1	TR2	TR3	TR4	TR5	NE1	NE2	NE3	PE1	NE4	PE2	PE3	PE4	PE5	NE5	BEH1	BEH2	BEH3	BEH4	BEH5	BEH6	RFPRM1	RFPRM2	RFPRM3	RFPRM4	RFPRM5	RFPRV1	RFPRV2	RFPRV3	RFPRV4	Mahalanobis Distance
4	4	3	4	3	5	5	5	5	1	1	1	5	5	5	4	3	5	5	5	5	5	5	4	5	4	1	4	4	3	1	1	1	3	.000
5	5	4	4	4	4	2	2	4	2	2	2	5	2	4	4	3	3	2	3	3	1	3	4	2	4	2	4	3	5	4	3	3	2	.000
3	4	2	5	3	5	5	3	1	3	2	3	4	2	3	4	1	3	3	4	4	3	3	3	3	3	4	4	3	3	2	4	3	3	.000
2	3	2	1	5	5	2	4	4	1	1	2	2	1	4	4	4	4	2	5	4	2	2	4	5	2	3	3	3	4	4	5	4	3	.000
3	4	5	3	4	2	1	5	5	2	2	2	3	3	4	3	3	3	3	4	3	2	2	2	3	3	4	3	5	5	5	3	3	5	.000
5	3	3	3	1	5	5	2	5	2	2	2	4	3	4	3	3	4	2	4	3	5	3	5	2	2	5	2	4	3	4	4	3	3	.000
3	3	4	3	3	1	1	1	3	3	5	3	1	5	1	4	3	1	5	1	1	1	1	1	1	1	3	1	4	1	3	4	1	5	.000
3	4	4	3	4	3	3	5	3	1	2	1	3	3	3	1	1	1	1	1	4	3	4	4	4	3	4	5	5	4	3	2	2	3	.000
4	4	3	2	4	2	4	3	3	4	2	4	4	3	3	3	2	3	3	3	4	2	3	5	2	4	2	3	3	4	4	2	4	3	.000
4	4	3	3	5	1	1	4	1	3	5	1	2	4	2	1	3	2	5	1	2	1	1	3	2	3	4	4	5	4	4	5	3	2	.000
5	4	4	3	4	3	4	2	3	1	3	2	3	2	4	2	3	2	1	3	2	3	4	3	4	4	5	4	3	3	4	5	5	4	.000
5	3	3	3	4	4	4	4	4	4	1	4	4	2	4	4	4	5	2	4	3	4	4	3	4	4	4	3	2	1	4	4	4	4	.000
3	2	5	4	4	4	4	4	4	1	4	3	3	2	2	4	4	2	4	3	3	4	2	3	3	4	3	3	2	3	3	2	3	3	.000
4	4	4	1	3	3	4	2	2	4	4	2	3	4	4	4	3	3	4	2	4	2	4	4	3	4	3	4	4	3	4	4	4	4	.000
2	2	2	2	4	1	1	1	1	1	2	3	1	1	2	2	2	2	5	1	1	1	1	4	1	4	5	5	5	5	5	3	3	5	.000
4	2	5	3	2	5	4	4	4	2	2	2	4	2	4	4	4	4	2	2	2	2	2	3	4	4	4	3	4	5	3	4	4	2	.001
4	5	5	4	4	4	4	4	5	4	5	5	4	4	4	4	4	5	4	2	4	4	5	3	3	4	4	3	4	3	5	5	4	3	.001
3	3	3	2	3	3	4	3	3	3	5	2	4	4	5	4	3	1	2	2	3	2	3	2	2	4	2	2	2	3	3	2	2	4	.001
5	5	5	5	5	5	5	5	5	1	1	5	5	1	5	1	5	5	1	5	5	5	5	4	5	1	5	4	5	5	4	5	5	5	.001
4	4	4	5	2	4	4	4	4	1	4	1	4	1	4	4	2	4	1	5	5	5	4	3	5	1	1	4	4	3	2	2	1	5	.001

4	5	4	5	4	3	5	3	3	1	1	1	3	1	4	4	3	3	1	3	3	2	3	3	4	2	3	4	2	5	3	5	3	1	.001

Appendix 7. Normality testing

INDICATORS	CONSTRUCT	Mean	Std. Deviation	Skewness			Kurtosis			Kolmogorov-Smirnov Test		
		Statistic	*Statistic*	*Statistic*	*Std. Error*	*Z-score*	*Statistic*	*Std. Error*	*Z-score*	*Statistic*	*df*	*Sig.*
CUSTOMERS' PERCEPTION OF CONTROL OVER WEBSITE INTERACTIONS ON THE WEBSITE												
CONTROL1	While navigating on Vodafone's website, I felt in control.	3.81	.71	-.43	.15	-2.83	.26	.29	.91	.32	280	<.001
CONTROL2	I felt that I had a great deal of control over my experience with Vodafone's website.	3.64	.77	-.40	.15	-2.69	-.14	.29	-.48	.31	280	<.001
CONTROL3	While on the Vodafone's website, I could choose freely what I wanted to see.	3.78	.77	-.52	.15	-3.49	.17	.29	.58	.32	280	<.001
CONTROL4	While on Vodafone's website, I was delighted to be able to choose what I could do.	3.69	.84	-.47	.15	-3.11	.09	.29	.31	.28	280	<.001
TRUST TOWARDS A COMPANY												
TRUST1	Vodafone is honest.	3.71	.89	-.80	.15	-5.32	.96	.29	3.32	.29	280	<.001
TRUST2	Vodafone is trustworthy.	3.88	.87	-.97	.15	-6.49	1.56	.29	5.37	.30	280	<.001
TRUST3	Vodafone cares about customers.	3.71	.92	-.76	.15	-5.08	.71	.29	2.46	.28	280	<.001
TRUST4	Vodafone provides me with good service.	4.04	.82	-1.05	.15	-6.98	1.82	.29	6.29	.30	280	<.001
TRUST5	I trust network provider.	3.88	.90	-1.02	.15	-6.80	1.46	.29	5.04	.30	280	<.001
EMOTIONS TOWARDS A COMPANY												
NE1	When thinking about Vodafone, I feel… - Ashamed	1.54	.81	1.65	.15	1.99	2.67	.29	9.20	.37	280	<.001
NE2	When thinking about Vodafone, I feel… - Angry	1.66	.98	1.71	.15	11.39	2.60	.29	8.96	.33	280	<.001

NE3	When thinking about Vodafone, I feel… - Fearful	1.69	.93	1.48	.15	9.88	1.98	.29	6.84	.31	280	<.001
NE4	When thinking about Vodafone, I feel... - Sad	1.61	.88	1.47	.15	9.81	1.70	.29	5.84	.35	280	<.001
NE5	When thinking about Vodafone, I feel… - Irritable	1.82	1.05	1.30	.15	8.64	1.04	.29	3.57	.28	280	<.001
PE1	When thinking about Vodafone, I feel… - Happy	3.54	.94	-.36	.15	-2.41	.09	.29	.32	.21	280	<.001
PE2	When thinking about Vodafone, I feel… - Interested	3.77	.84	-.60	.15	-4.02	.65	.29	2.22	.28	280	<.001
PE3	When thinking about Vodafone, I feel… - Attentive	3.37	.97	-.82	.15	-5.45	.39	.29	1.35	.27	280	<.001
PE4	When thinking about Vodafone, I feel… - Determined	3.28	1.04	-.65	.15	-4.31	.05	.29	.17	.22	280	<.001
PE5	When thinking about Vodafone, I feel… - Inspired	3.20	1.06	-.31	.15	-2.05	-.21	.29	-.72	.22	280	<.001
INTENDED BEHAVIOUR TOWARDS A COMPANY												
BEH1	I would encourage friends and relatives to buy a mobile phone plan from Vodafone's website.	3.71	.92	-.75	.15	-4.97	.55	.29	1.88	.29	280	<.001
BEH2	I would say positive things about buying a mobile phone plan from the Vodafone's website to other people.	3.84	.81	-.78	.15	-5.19	1.21	.29	4.16	.31	280	<.001
BEH3	I would recommend a network provider, and their website to anyone who is looking for a new mobile phone plan.	3.82	.88	-.94	.15	-6.28	1.19	.29	4.09	.32	280	<.001
BEH4	When choosing a new mobile phone plan, I would consider Vodafone's website as my first choice.	3.85	.95	-.80	.15	-5.31	.49	.29	1.69	.27	280	<.001
BEH5	I would continue to buy from the Vodafone in the future, even if other alternatives are available.	3.65	.91	-.62	.15	-4.15	.31	.29	1.05	.28	280	<.001
BEH6	I would talk positively about the Vodafone in the future.	3.91	.82	-.91	.15	-6.05	1.42	.29	4.91	.31	280	<.001
PROMOTION REGULATORY FOCUS												

RFPRM1	I frequently imagine how I will achieve my hopes and aspirations.	3.66	.92	-.69	.15	-4.60	.59	.29	2.03	.27	280	<.001
RFPRM2	I often think about the person I would ideally like to be in the future.	3.52	1.03	-.58	.15	-3.85	-.24	.29	-.84	.27	280	<.001
RFPRM3	I typically focus on the success I hope to achieve in the future.	3.65	.85	-.30	.15	-2.01	.01	.29	.04	.24	280	<.001
RFPRM4	In general, I am focused on achieving positive outcomes in my life.	3.93	.80	-.79	.15	-5.25	.98	.29	3.38	.31	280	<.001
RFPRM5	I often imagine myself experiencing good things that I hope will happen to me.	3.78	.87	-.60	.15	-4.01	.29	.29	.99	.28	280	<.001
PREVENTION REGULATORY FOCUS												
RFPRV1	I frequently think about how I can prevent failures in my life.	3.58	.88	-.62	.15	-4.16	.43	.29	1.47	.28	280	<.001
RFPRV2	I am anxious that I will fall short of my responsibilities and obligations.	3.24	1.08	-.24	.15	-1.58	-.74	.29	-2.57	.22	280	<.001
RFPRV3	I often imagine myself experiencing bad things that I fear might happen to me.	3.08	1.13	-.11	.15	-.73	-.78	.29	-2.68	.18	280	<.001
RFPRV4	In general, I am focused on preventing negative events in my life.	3.72	.79	-.42	.15	-2.79	.10	.29	.34	.29	280	<.001