Investigating Cyber-loafing in South African Organisations: The Role of Theory of Planned Behaviour

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Plagiarism Declaration

This work has not been previously submitted in whole, or in part, for the award of any degree in this or any other university. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works of other people has been attributed, and has been cited and referenced.

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Table of Contents

List of Tables

List of Figures

Abstract

Organisations are increasingly becoming aware of employees' internet use for non-work-related activities, a phenomenon known as cyber-loafing. This poses a problem for organisations as both employee and organisational productivity are negatively impacted. Cyber-loafing is a fairly nascent concept within the Counterproductive Work Behaviour (CWB) literature, given the recent rise in technological advancements. Employees who engage in cyber-loafing divert their energy and attention away from work for prolonged periods of time, which is classified as a withdrawal behaviour under the CWB typology. The Theory of Planned Behaviour (TPB) has previously been shown to explain other CWBs, such as time theft and cyber-loafing. Due to the internet's ubiquitous nature in South African organisations and lack of research on cyber-loafing in South Africa, the objective of this study was to investigate cyber-loafing amongst administrative support staff in South African organisations using TPB. An explanatory cross-sectional descriptive research design was used. Data was collected using both online and hardcopy surveys yielding 92 participants from employees that provide administrative assistance in various organisations. In this sample, 89% of respondents were female and 11% were male, whilst 92% were employed full-time and 5% part-time. The results showed that only descriptive and prescriptive norms and attitude towards cyber-loafing predicted intention and cyber-loafing. Differing from previous research, intention mediated the relationship between attitude and cyber-loafing only. The results show that organisations could develop interventions targeted at descriptive and prescriptive norms to reduce cyber-loafing behaviour and by influencing attitudes around cyber-loafing, organisations could influence cyber-loafing intention and behaviour. Based on these results, suggestions for further research are proposed.

Keywords: Cyber-loafing, Theory of Planned Behaviour (TPB), Counterproductive Work Behaviour (CWB)

Chapter 1

The advent of internet access in organisations is arguably a double-edged sword (Sheikh, Atashgah, & Adibzadegan, 2015). Although internet access in the workplace has contributed to streamlined job processes and widespread communication, negative aspects such as using an organisation's internet connection for person pursuits have been reported (Sheikh et al., 2015). Internet-enabled technology has provided more opportunities for employees to engage in non-work-related activities during working hours under the guise of working, resulting in a phenomenon known as cyber-loafing (Mercado, Giordano, & Dilchert, 2017).

In 2002, Vivien Lim's seminal study defined and introduced the concept of cyber-loafing and its categorisation as a Counterproductive Work Behaviour (CWB). Lim (2002) explained that although the internet plays a beneficial role in both employee and organisational productivity, employees are often tempted to utilise the internet to engage in non-work-related activities during working hours. The lure for employees to engage in cyber-loafing is greater than, for example, taking long lunches because the prospect of getting caught when cyber-loafing is less likely. Unlike taking long lunches or being absent for extended periods of time, cyber-loafers are physically present and appear to be working but are mentally disengaged from their work (Ugrin, Pearson, & Nickle, 2018).

Lim's (2002) study sought to develop a model to explain employee motivation for engaging in cyber-loafing by surveying 188 employees from various organisations in Singapore. These surveys were then followed up by interviews with 20 willing participants from the sample. The research found that employees utilise the metaphor of the ledger to justify their engagement in cyber-loafing, in response to some form of perceived injustice in the organisation, which comprises procedural, interactive and distributive justice (Lim,

2002). The ledger metaphor is defined as an employee using past good deeds within the organisation to justify their current engagement in deviant behaviour (Lim, 2002).

Prior to Lim's (2002) study, media reports and articles reported on the misuse of companies' internet for personal purposes (Lim, 2002). The prevalence of cyber-loafing and the growing concern over employee engagement in cyber-loafing activities and the resultant cost to organisations were highlighted (Blanchard & Henle, 2008). However, most of the prior research was anecdotal and did not elucidate why cyber-loafing occurred, only that this phenomenon was, and still is, present in organisations and warranted concern (Blanchard & Henle, 2008). In response to this growing concern, Lim's (2002) study sought to provide an explanation for the presence of cyber-loafing in organisations and highlighted the need for further cyber-loafing research.

Lim's (2002) research positioned cyber-loafing in the growing body of literature on Counterproductive Work Behaviours (CWBs) based on the conceptualisation of cyber-loafing as production deviance – a type of CWB. CWBs are negative behaviours engaged in by employees of their own volition towards either the organisation or other employees in reaction to either personal or organisational factors. These behaviours are regarded as violating organisational norms, meaning that engaging in cyber-loafing would not be considered as generally accepted organisational behaviour (Carpenter & Berry, 2016). Cyber-loafing, similar to other withdrawal behaviours, is distinctive in that neither the organisation nor other employees are direct targets, but that employees are motivated to disengage from work (Askew, 2012).

Employees engaged in cyber-loafing are likely to experience a decrease in task performance and productivity, as their time and energy is not focused on their job (Askew et al., 2014). This loss in productivity has been reported to be costly for both the employee and the organisation (Mercado et al., 2017). Employees may consider that periodically spending a

few minutes cyber-loafing throughout their working day may be innocuous, but when these few minutes are accumulated, valuable hours of productivity are lost (Mercado et al., 2017).

According to Askew et al. (2014), cyber-loafing is the most common method utilised when wasting time at work. As both Ugrin et al. (2018) and Jia, Jia, and Karau (2013) have reported, there are various types of social loafing in which employees could engage. Cyber-loafing is considered fairly easy to accomplish due to the relative ease of access to the internet, the perception of privacy when cyber-loafing and the ability to hide cyber-loafing activities from superiors and colleagues. As such, there is a greater temptation to engage in cyber-loafing than other types of loafing (Ugrin et al., 2018).

Resulting from the pace at which the technological landscape is changing, an increasing number of methods are emerging for employees to engage in negative or undesirable work behaviours (Weatherbee, 2010). Coupled with the knowledge that cyber-loafing impacts both employee and organisational productivity, organisations and management are concerned about employees engaging in cyber-loafing and how to control it (Oosthuizen, Rabie, & De Beer, 2018). This concern has led to a proliferation of research into cyber-loafing to understand its nomological framework, rationale for why employees engage in cyber-loafing, and the resulting impact on employee engagement and organisational performance (Askew, 2012). Unlike other CWBs, empirical work on cyber-loafing is fairly nascent and its theoretical composition is not yet well understood (Mercado et al., 2017). There is a need for a robust theoretical underpinning to explain why cyber-loafing occurs. The benefit of understanding the underlying mechanisms of cyber-loafing would inform research into how organisations could manage cyber-loafing (Askew, 2012).

Previous research has found support for Ajzen's (1991) Theory of Planned Behaviour (TPB) in successfully predicting counterproductive and other withdrawal behaviours (Askew, 2012; Sheikh et al., 2015). Pelling and White (2009) found support for TPB in explaining

social networking website (SNW) use amongst 233 university students. Henle, Reeve, and Pitts (2010) successfully applied TPB in explaining time theft amongst 135 employed undergraduate university students.

Based on the established relationship between TPB and withdrawal behaviours, Askew (2012) sought to use TPB in explaining cyber-loafing, a type of withdrawal behaviour. From the results of 447 subordinates and 147 supervisors, Askew (2012) found support for a modified version of TPB in explaining cyber-loafing behaviour.

TPB posits that behaviour is dependent on a person's behavioural intention. In turn, intention is dependent on a person's subjective social norms, their perceived behavioural control and their attitude towards the behaviour. Collectively, the relationship of these variables results in either inhibition or engagement of the behaviour (Ajzen, 1991). In this research study, TPB is used to explain cyber-loafing behaviour amongst administrative support staff in South African organisations.

Purpose of this Study

Cyber-loafing as a phenomenon has not been researched in South Africa as extensively as in other countries (Thatcher, Wretschko, & Fridjhon, 2008). Since South African organisations, especially those who provide administrative support, make use of technology such as computers and the internet at work, it is important to investigate this phenomenon within the workplace; considering the resulting cost and productivity implications cyber-loafing poses on employees and organisations (Oosthuizen et al., 2018).

The objective of this study is to twofold: the first aim is to investigate the predictive ability of the Theory of Planned Behaviour in explaining cyber-loafing amongst administrative support staff in the South African context. The second aim is to contribute to the growing empirical research on cyber-loafing since there is a paucity of empirical research on cyber-loafing as a CWB within the South African work context.

Guided by previous research validating the application of TPB in explaining withdrawal behaviours (Askew, 2012), this study proposes that cyber-loafing can be predicted using TPB as a framework established to intervene in avoiding CWBs. The benefit of successfully modelling cyber-loafing behaviour onto TPB amongst those who provide administrative assistance would provide clarity into the motives of cyber-loafing behaviour. This understanding will contribute to the growing body of literature on how to control cyber-loafing in South African organisations.

The following research question is proposed for the current study: Does the Theory of Planned Behaviour predict cyber-loafing amongst administrative support staff in South African organisations?

In this chapter, cyber-loafing and the Theory of Planned Behaviour were introduced and situated within the South African context. Following this, the purpose of conducting this research was explained and this study's research question was proposed. Contained in the next chapter is a detailed review of this study's focal constructs and their relationships.

Chapter 2

Literature Review

The previous chapter provided a broad contextual overview of the current study by introducing the focal constructs and what this study intends to achieve. This chapter presents a conceptualisation of the variables under study. An in-depth review of literature pertaining to these constructs will be discussed, concluding with this study's research hypotheses.

Defining and Characterising Cyber-loafing

Cyber-loafing, according to Lim (2002), refers to the non-work-related internet-based activities that employees engage in during work hours, using their organisation's internet. The nature of these activities is voluntary and is not prescribed as part of the job. These activities include checking personal emails and searching the internet or any other personal internet-based activities (Lim, 2002). Other terms that are used interchangeably in the cyber-loafing discourse are cyber-slacking (Vitak, Crouse, & LaRose, 2011) and cyber-deviancy (Weatherbee, 2010).

Lim's (2002) proposed definition of cyber-loafing is not unanimously agreed upon in the literature for a number of reasons (Mercado et al., 2017). Firstly, Lim's (2002) cyber-loafing taxonomy comprised only two activities as manifestations of cyber-loafing: 1) personal email activity, and 2) browsing the internet. Since then, the internet has evolved and the scope of internet-based activities has broadened with the introduction of Web 2.0 applications such as YouTube, Facebook and instant messaging. As such, Lim's (2002) taxonomy no longer encompasses the entirety of cyber-loafing activities, and newer methods of cyber-loafing need to be considered in addition to those initially researched (Vitak et al., 2011).

Secondly, Lim's (2002) definition of cyber-loafing specifies that employees make use of the organisation's web connectivity to engage in cyber-loafing. Internet-enabled devices

such as smartphones are more widely available today than before, and individuals are able to purchase their own internet connectivity such as data for their devices (Mercado et al., 2017). This affords employees other opportunities to access the internet for personal purposes, rather than solely relying on their organisation's internet connection (Mercado et al., 2017).

Currently, empirical works on cyber-loafing have modified the conceptualisation of cyber-loafing to reflect the dynamic technological landscape and multiplicity of internet-based activities. This study understands cyber-loafing to be the engagement of non-work-related activities by employees through the use of various technologies during working hours (Mercado et al., 2017).

To illustrate how cyber-loafing is positioned in the broader CWB discourse and how it is characterised as a withdrawal behaviour, an overview of CWBs will now be discussed.

Defining Counterproductive Work Behaviours

Counterproductive work behaviours are defined as deviant acts engaged in by employees which violate organisational rules and norms to the detriment of either the organisation or employees' psychological and/or physical wellbeing (Spector et al., 2006). As a result of engaging in deviant act(s), employee and organisational productivity may be compromised (Spector et al., 2006). Rationale for why employees engage in CWBs and its implications are ongoing questions which continue to fuel research. This has subsequently led to various models and explanations of why employees commit deviant behaviours at work (Spector et al., 2006).

Antecedents of Counterproductive Work Behaviours

In the CWB literature, there are various perspectives on the categorisation and underlying causes of deviant behaviour in organisations (Spector et al., 2006). Some research adopts the perspective that different CWBs could be combined into one construct which is caused by a single underlying cause – injustice – which then manifests into the different

forms (Spector et al., 2006). Other research takes the perspective that different CWBs may have different causes, such as organisational injustice or conflict, and could therefore be categorised into different typologies, as has been demonstrated with frameworks from both Robinson and Bennett (1995) and Spector et al. (2006) respectively.

Counterproductive Work Behaviours Typology

Over the years, research into CWBs has contributed towards the development of various frameworks in an attempt to classify different deviant behaviours. Lim (2002) categorised cyber-loafing based on the deviant employee workplace behaviour typology proposed by Robinson and Bennett (1995).

Robinson and Bennett (1995) propose that employee deviance is categorised along two dimensions. The first dimension looks at whether the deviance is aimed at the organisation (CWB-O) or interpersonally (CWB-I). The second dimension adds depth by examining whether the deviant acts are minor or severe. This produces a four-square matrix by which employee deviance can be categorised. The four matrices are: (1) production deviance (which is considered to be minor in nature and aimed at the organisation); (2) property deviance (more serious in nature, with the organisation as the target); (3) political deviance (interpersonally aimed but comparatively minor), and (4) personal aggression (more serious in nature and interpersonally aimed).

Production deviance is considered to be minor deviant workplace behaviours, such as taking long lunches, frequent or long bathroom breaks, which withdraws an employee's attention from work. When these behaviours are accumulated and engaged in consistently over time, they could be harmful towards the employee's – and ultimately, the organisation's – productivity. When an employee unlawfully takes or causes damage to an organisation's physical property, they are committing an act of property deviance. Political deviance is the use of an employee's social interactions and relationships to put other employees at a

political or personal disadvantage, for example gossiping about others or showing favouritism. Personal aggression is the aggressive, untoward behaviour of an employee to one or more employees, for instance stealing from other employees or committing acts of abuse (Robinson & Bennett, 1995).

Cyber-loafing as a Counterproductive Work Behaviour

In the CWB literature, the concept of cyber-loafing is a fairly recent addition (Hunter, 2014). Common to most conceptualisations of cyber-loafing is that employees are voluntarily withdrawing their attention and energy from work tasks for long periods of time and using this time to instead engage in personal activities using either the internet or some form of technology (Mercado et al., 2017). Cyber-loafing is classified as a withdrawal behaviour based on the CWB classification framework proposed by Spector et al. (2006).

In Spector et al.'s (2006) framework, CWBs could be classified into five categories, namely: (1) abuse, (2) sabotage, (3) theft, (4) production deviance, and (5) withdrawal. Abuse is the direct act of hostility towards employees in the organisation. Such hostility could manifest in verbal, physical or emotional abuse. Abuse is thought to be caused and either aided or inhibited by organisational factors. Sabotage is the intentional destruction of property or obstruction of operations, both with the intention to harm the organisation or other employees. Theft and production deviance mirror property and production deviance proposed by Robinson and Bennett (1995), respectively. Withdrawal behaviours divert a person's attention and energy away from the work that is expected from them, and instead engage this energy in pursuits not necessarily condoned by organisational rules or norms (Spector et al., 2006). Examples of withdrawal behaviours could be cyber-loafing, taking longer breaks and absenteeism (Askew, 2012). As Lim and Teo (2005) explain, an employee who becomes engaged in cyber-loafing does not only spend less time on their work, but the majority of their energy is expended on non-work-related tasks, as opposed to focusing their

energy on prescribed work tasks. This results in decreased work engagement and productivity (Lim & Teo, 2005).

Withdrawal behaviours like cyber-loafing differ from other forms of CWBs as the intention behind the disengagement is not primarily to cause harm to the organisation or other employees, but rather to withdraw or escape from work. Typically, withdrawal behaviours do not have a target, however some employees may cyberloaf or be absent from work in a form of organisational justice (Carpenter & Berry, 2016; Oosthuizen et al., 2018). A meta-analysis conducted by Carpenter and Berry (2016) found the relationship between CWB and withdrawal behaviour to be strong, particularly the relationship between withdrawal behaviour and organisational-facing CWB. Additionally, Mercado et al. (2017) found in their meta-analysis that cyber-loafing strongly and positively related to CWB.

Though there are differing opinions on how cyber-loafing is categorised consistent with that of previous research (Askew, 2012; Askew et al., 2014), based on the nature and conceptualisation of cyber-loafing in this study, cyber-loafing is considered to be a withdrawal behaviour.

Characteristics of Cyber-loafing

Similar to other withdrawal behaviours, cyber-loafing is typified by the withdrawal of attention from work (Askew, 2012). Contributing to cyber-loafing's uniqueness and appeal is that an employee can be physically present and portray the appearance of working (on their technological device), whereas being absent for an extended period from work or taking long lunches is more noticeable (Ugrin et al., 2018).

Cyber-loafing Typology

Like other CWBs, cyber-loafing activities have various typologies. As the scope of cyber-loafing activities has increased, different frameworks to classify cyber-loafing activities have been developed. Anandarajan and Simmers (2004) proposed a framework that

classifies personal web usage (PWU) into four activities, namely: (1) disruptive, (2) recreational, (3) personal learning and, (4) ambiguous. Disruptive activities include checking personal email and playing online games, whereas recreational PWU consists of leisure activities like searching for a new job or browsing the internet. Personal learning is the use of the internet to further information or knowledge on topics not necessarily beneficial to everyday work and ambiguous PWU comprises activities that cannot easily be classified into the previous three categories – they may beneficial, but could also be considered negatively. Anandarajan and Simmers (2004) explain that this category needs to be explored further.

Mahatanankoon, Anandarajan, and Igbaria (2004) proposed a similar model where PWU was categorised into: (1) online shopping and other personal business, (2) browsing the internet, (3) personal communication, (4) entertainment and, (5) downloading.

Blanchard and Henle (2008) present a different framework where types of cyber-loafing are categorised according to two broad categories of severity – namely minor and serious – rather than grouping. The most prevalent forms of cyber-loafing found in organisations fall into the minor category (Lim & Chen, 2012). Minor forms of cyber-loafing consist of activities such as checking personal emails, sending instant messages, using Facebook, as well as browsing news and social media outlets consistently over long periods of time (Askew et al., 2014). Although these forms of cyber-loafing are considered minor, it does not mean that their effects on employee and organisational productivity are not serious, especially when accumulated consistently over long periods of time (Blanchard & Henle, 2008). Serious forms of cyber-loafing comprise more grievous internet-related activities, such as spreading harmful internet material or viruses and computer hacking (Blanchard & Henle, 2008). In their research on 191 alumni from an Asian university, Lim and Chen (2012) found serious forms of cyber-loafing to be less frequent as employees perceived these acts to have serious consequences not only for themselves but also for their organisations.

Askew (2012) importantly notes that although these more severe types of cyber-loafing activities are important to investigate, they are likely to have different consequences for employees and organisations in addition to possibly being driven by alternative causes.

In the literature there is a lack of consensus on the classification of cyber-loafing activities and no universal typology has been adopted. However, what is understood is that cyber-loafing activities range in both type and severity (Mercado et al., 2017).

Antecedents of Cyber-loafing

Various causes of cyber-loafing have been researched, ranging from individual-level factors like demographics (Baturay & Toker, 2015) and personality (Jia et al., 2013), to broader organisational-level variables such as norms (Blanchard & Henle, 2008), and even contextual factors such as national culture (Ugrin et al., 2018). In the majority of cyber-loafing literature, studies have produced conflicting and varying opinions on both what causes someone to engage in cyber-loafing, and what characteristics a cyber-loafer possesses (Vitak et al., 2011). In an attempt to guide future research, Mercado et al. (2017) conducted a meta-analysis of 39 different correlating variables with cyber-loafing.

Table 1 presents a summary of cyber-loafing research related to the current study. Further cyber-loafing studies, including additional seminal works, are contained in Table 10 in Appendix A.

Table 1

Summary of Cyber-loafing Literature

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Lim (2002)	Singapore	• To develop a model explaining cyber-loafing activities in organisations whereby employees use the metaphor of a ledger to neutralise organisational injustice.	188 employees from various organisations	Electronic survey Focus group interviews	• Employees use the metaphor of a ledger to neutralise cyber-loafing activities in response to injustice in the workplace.
Askew (2012)	United States of America	• To validate findings that the Theory of Planned Behaviour could be used to explain cyber-loafing and that cyber-loafing has an effect on task performance and job satisfaction.	447 subordinates and 147 supervisors	Survey	• The Theory of Planned Behaviour significantly predicted cyber-loafing behaviour. • Cyber-loafing in small durations does not have a significant effect on task performance, only if engaged in for long and frequent periods of time. • Cyber-loafing on a cell phone, not on a desktop, is related to job satisfaction.
Lim and Chen (2012)	Singapore	• To measure the impact of cyber-loafing on employee work and emotion, as well as gender differences in the perception of cyber-loafing.	191 alumni from an Asian university (38%)	Non-electronic survey	• On average, respondents reported that certain forms of cyber-loafing at work were acceptable. • Compared to women, men felt that cyber-loafing had a positive impact on their work. • Emailing activities were found to have a negative effect on emotions, whereas browsing activities had a positive effect.
Jia et al. (2013)	United States of America	• To explore the effect of personality, implementation of an internet usage policy and perceived meaningfulness of work on cyber-loafing.	147 working adults	Online survey	• Emotional stability, conscientiousness and the use of an internet usage policy were inversely related to cyber-loafing, unlike extraversion which was positively related.

Table 1

Summary of Cyber-loafing Literature Continued

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Askew et al. (2014)	United States of America	• To assess the validity of the TPB model in explaining cyber-loafing.	Study 1: 429 student and non-student employees Study 2: 202 employees	Survey	• Descriptive norms, attitudes towards cyber-loafing, and ability to hide cyber-loafing were the most significant predictors of behavioural intention and cyber-loafing.
Sheikh et al. (2015)	Iran	• To validate Askew (2012) and Askew et al.'s (2014) modified version of TPB in explaining cyber-loafing in an Iranian context.	195 employees from a copper mine	Survey	• Social norms, attitudes towards cyber-loafing and ability to hide cyber-loafing predicted behavioural intention.
Askew and Buckner (2017)	United States of America	• To investigate if work desk characteristics and electronic monitoring had an influence on cyber-loafing, with ability to hide cyber-loafing as the mediator.	202 working adults	Paper and pen survey	• It was found that visibility of an employee's computer screen has an influential relationship on cyber-loafing through the ability to hide cyber-loafing.
Mercado et al. (2017)		• To summarise the current literature on cyber-loafing to guide future research and understand the factors.	54 independent samples	Meta-analysis	• Attitudes, opportunities to cyber-loaf, work engagement, self-control and being bored at work are strong predictors of cyber-loafing. • Self-control is also shown to have a stronger negative relationship with cyber-loafing than emotional stability, agreeableness and conscientiousness. • Demographics and employment characteristics (e.g. salary/ wage) were found to have little to no influence on cyber-loafing.
Oosthuizen et al. (2018)	South Africa	• To investigate the relationship between organisational justice, work engagement, organisational trust and cyber-loafing.	224 employees from the retail and manufacturing industry	Questionnaire	• For employees who perceive their organisations to be fair, organisational trust and work engagement increases, reducing cyber-loafing.

The above summary of literature reveals that:

- There is a paucity of empirical research on cyber-loafing in South Africa.
- There is a lack of consensus on what causes cyber-loafing as a broad range of both individual and contextual variables have been explored.
- Cyber-loafing correlates strongly with CWBs, and not task performance, supporting classification of cyber-loafing as a CWB, although some studies have found support for the restorative effects of cyber-loafing.
- Cyber-loafing deterrence mechanisms and sanctions have been shown to effectively reduce the frequency of cyber-loafing in organisations.

Cyber-loafing Perspectives

Research on cyber-loafing has been focused on what causes cyber-loafing rather than its personal and organisational implications (Askew, 2012). This study will briefly discuss the two varying opinions on the implications of cyber-loafing. One implication of cyber-loafing highlighted is the decrease in employee and organisational productivity (Mercado et al., 2017). Furthermore, cyber-loafing could render the organisation susceptible to legal implications should employees engage in certain serious acts of cyber-loafing, such as illegally downloading music and videos (Blanchard & Henle, 2008).

However, not all research views cyber-loafing as negative, though this opinion seems to be in the minority (Mercado et al., 2017). From their study on 152 employees in Turkey, Derin and Gökçe (2016) found a weak, positive relationship between innovation and cyber-loafing. Cyber-loafing could result in innovation especially if the time is spent learning new skills which could enhance the employee's productivity and benefit the organisation (Derin & Gökçe, 2016). The result of this increase in innovation or creativity is thought to be significant enough to offset the loss in productivity whilst cyber-loafing (Derin & Gökçe, 2016).

Contrary to this perspective, in Askew's (2012) study conducted on 447 subordinates and 147 supervisors from various organisations around the United States of America (USA), it was found that longer durations of cyber-loafing had a negative impact on task performance. This means that the longer a person is withdrawn from their work task, the less time is spent on that task. Cyber-loafing could provide employees with time to restore their energy and engage in tasks with renewed vigour, but if engaged in for prolonged periods of time, cyber-loafing could have negative implications on productivity because of time lost (Ugrin & Pearson, 2013).

Control Measures

Due to the increased attention on cyber-loafing, managers are grappling with how best to control and reduce cyber-loafing (Sampat & Basu, 2017). Some organisations have implemented policies which provide a set of guidelines for internet usage to regulate employee internet usage behaviour during working hours. It has been shown that internet usage policies mitigate the engagement and frequency of cyber-loafing (Jia et al., 2013). Monitoring employees' internet usage and adherence to organisational internet usage policies have been found effective in dissuading employees from cyber-loafing. However, this may adversely result in job dissatisfaction and lowered productivity as employees may feel that their privacy has been violated (Pee, Woon, & Kankanhalli, 2008). Thus it is important for organisations to be cognisant of different cyber-loafing antecedents to be able to develop different organisational rules and policies on internet use. Different forms of cyber-loafing would be controlled for depending on the underlying cause (Blanchard & Henle, 2008). In their study on perceptions and justifications used for cyber-loafing behaviour, Lim and Teo (2005) found that the more serious the act of cyber-loafing was perceived, the less likely that employees would engage in that form of cyber-loafing. The relationship between perception of cyber-loafing and cyber-loafing engagement is inverse – the more serious the cyber-

loafing activity is perceived the less likely employees are to engage in it. The opposite of this is also true: minor cyber-loafing activities are not considered by employees to be deviant and therefore they are more prevalent (Lim & Teo, 2005). This is important to note as different policies and regulations would be implemented to target and control different forms of cyber-loafing.

Unlike other CWBs, there is little consensus in the literature regarding the theoretical framework of cyber-loafing. This is evidenced by the varying perspectives reported in empirical research (Mercado et al., 2017). There are various models and antecedents, ranging from individual to organisational factors, that have been investigated in an attempt to explain why employees engage in cyber-loafing. One model that has successfully been used to explain other withdrawal behaviours, and cyber-loafing, is the Theory of Planned Behaviour.

In a study of 447 subordinates and 147 supervisors from various organisations in the USA, Askew (2012) sought to explain cyber-loafing behaviour using TPB and to ascertain if cyber-loafing and task performance were related. The study found that a modified version of TPB significantly predicted cyber-loafing and that spending long, frequent periods of time cyber-loafing had a significant impact on employee productivity. Both Askew et al. (2014) and Sheikh et al. (2015) found similar results in their studies on cyber-loafing and TPB.

Relationship between Cyber-loafing and the Theory of Planned Behaviour

The Theory of Planned Behaviour was identified as an appropriate model to use as it had been previously applied in predicting other CWBs, and more specifically withdrawal behaviours such as cyber-loafing (Askew, 2012; Askew et al., 2014). Further support for TPB as a model to explain cyber-loafing has been provided by Sheikh et al. (2015), who successfully modelled cyber-loafing onto TPB. Other withdrawal behaviours, such as employee turnover and absenteeism due to illness, have also been successfully modelled onto the Theory of Planned Behaviour.

First proposed by Ajzen (1985), TPB posits a person's rational behaviour as the result of a person's intention, which is shaped by the interaction between their attitude towards the behaviour, perceived behavioural control, and subjective social norms around the behaviour.

When cyber-loafing is mapped onto TPB, behaviour is predicted by the subjective social norms around cyber-loafing, attitude towards cyber-loafing, and a person's perceived behavioural control over cyber-loafing. This relationship between cyber-loafing behaviour, social norms, attitude and perceived behavioural control, is then mediated by a person's intention to engage in cyber-loafing (Askew, 2012).

TPB consists of five components, namely: (1) subjective social norms, (2) attitudes, (3) perceived behavioural control, and (4) intention, which inform (5) behaviour. The four informing factors are explained in further detail below.

Subjective Social Norms. These are the norms informed by a person's reference groups, such as colleagues and supervisors who influence a person's perception of and intention to engage in a behaviour such as cyber-loafing (Liberman, Seidman, McKenna, & Buffardi, 2011). For example, if an employee works in an organisation where their co-workers and/or supervisors engage in, or do not express disapproval of, cyber-loafing activities, the employee's intention to engage in cyber-loafing will be increased, and as a result cyber-loafing behaviour is more likely to occur. Employees would use the fact that others are engaging in cyber-loafing behaviour as justification for their own actions (Blanchard & Henle, 2008). In a sample of 226 employees from Singapore, Lim and Teo (2005) found that one of the reasons employees engage in cyber-loafing is due to normalisation of the behaviour. Employees justified their cyber-loafing based on their perception that other employees also engaged in cyber-loafing (Lim & Teo, 2005). An employee uses their social context as a reference to inform the acceptability of their behaviour, influencing their intention to engage in the behaviour. Similarly, in their study

conducted using 201 MBA students from the USA, Blanchard and Henle (2008) sought to investigate the roles of social norms and locus of control (the amount of control a person perceives to have over a situation) in different forms of cyber-loafing. It was found that employees did not consider minor forms of cyber-loafing to be deviant as they perceived other employees to be engaging in this behaviour as well. Employees' perceived reference group's norms were only related to minor, not serious, forms of cyber-loafing (Blanchard & Henle, 2008). From a survey of 143 employees from different industries around the USA, Liberman et al. (2011) also found norms to play an instrumental role in an employee's intention to cyberloaf. Colleagues and supervisors play a guiding role in influencing employees' cyber-loafing intentions. Norms are subjective and context-specific; different organisations, employees and supervisors will have varying norms around the acceptability of cyber-loafing in the workplace. Some organisations may be more lenient, whereas others may be more disapproving, resulting in differences in the incidences and frequency of cyber-loafing (O'Neill, Hambley, & Bercovich, 2014). An employee will use their colleagues and supervisors as a reference for what is and is not acceptable in the organisation. Should other employees be cyber-loafing, an employee may perceive it to be acceptable behaviour and not deviant (Liberman et al., 2011). Other research has shown norms to be a predictor of cyber-loafing behaviour, in addition to other withdrawal behaviours such as absenteeism and lateness to work (Askew, 2012). Overall, norms have been shown to be a robust and strong predictor of cyber-loafing (Mercado et al., 2017).

Subjective social norms are a function of both prescriptive and descriptive norms, which are discussed as follows:

Prescriptive Norms. These norms are defined as what a group of employees would approve. If an employee believes that their co-workers or supervisors perceive cyber-loafing

to be acceptable or unacceptable behaviour, they would use this as justification for their cyber-loafing or lack thereof (Askew, 2012).

Descriptive Norms. The behaviours an employee perceives other employees to be engaged in are known as descriptive norms (Sheikh et al., 2015). If an employee believes their supervisor or colleagues to be engaging in cyber-loafing, the employee may be more likely to engage in similar cyber-loafing behaviour, in conjunction with the effect of the other predictor variables.

Attitude towards Cyber-loafing. This refers to a person's regard towards the behaviour (Ajzen, 1991). To better understand the nomological network of cyber-loafing from the existing research, Mercado et al. (2017) conducted a meta-analysis of global research on cyber-loafing. From their analysis of 54 independent samples, it was reported that one of the strongest predictors of cyber-loafing was attitude. Furthermore, attitude – a component of TPB – has been found to have a strong relationship with cyber-loafing (Mercado et al., 2017). As the internet evolves and its presence becomes more ubiquitous in organisations, attitudes towards the use of the internet during working hours have changed (Blanchard & Henle, 2008); Liberman et al. (2011) also found in a sample of 143 employees across various industries in the U.S. that attitude was positively related to cyber-loafing. These findings illustrate that the more favourable an employee's attitude towards cyber-loafing, the likelier they are to engage in cyber-loafing behaviour.

Perceived Behavioural Control. The next TPB component which contributes to determining behavioural intention is perceived behavioural control (PBC). PBC is an employee's perceived control over their behaviour (Ajzen, 1991). As an example, if an employee perceives their ability to cyberloaf as relatively unhindered, where organisations do not block certain websites or monitor internet activity, they would be more likely to engage in cyber-loafing behaviour. The opposite of this would also hold true. Should an organisation

hinder an employee's access to non-work-related internet sites, such as Facebook, employees perceive themselves as having less control over their cyber-loafing activities. This results in diminished intention to engage in cyber-loafing (Askew et al., 2014).

Intention. Mediating the relationship between attitudes, subjective social norms, PBC and their effect on cyber-loafing is behavioural intention. This refers to the motivation of a person to engage in a behaviour like cyber-loafing (Ajzen, 1991). The more favourable an employee's social norms and attitudes towards cyber-loafing, coupled with a greater perception of control they perceive having over cyber-loafing, the greater the influence this would have on their intention, and effort, to engage in cyber-loafing. Together, descriptive norms, prescriptive norms, attitude and PBC contribute towards the formation of an employee's intention either to cyberloaf or not (Askew et al., 2014). In their study to validate TPB in explaining cyber-loafing amongst samples of employed students and non-students, Askew et al. (2014) found intention to engage in cyber-loafing as having a strong, positive relationship with cyber-loafing, meaning that the higher the person's intention is to engage in cyber-loafing, the higher the likelihood of them cyber-loafing.

Hypotheses

Based on the literature reviewed for this study, the following research hypotheses were proposed:

Hypothesis 1: Prescriptive norms, descriptive norms, attitudes and PBC collectively predict an employee's intention to engage in cyber-loafing.

Hypothesis 2: Prescriptive norms, descriptive norms, attitudes and PBC collectively predict an employee's cyber-loafing behaviour.

Hypothesis 3: Intention predicts cyber-loafing.

Hypothesis 4: Intention to cyberloaf mediates the relationship between prescriptive norms, descriptive norms, attitudes towards cyber-loafing, perceived behavioural control and cyber-loafing.

Conclusion

In this chapter the concepts introduced in Chapter 1, namely Counterproductive Work Behaviours, cyber-loafing and the Theory of Planned Behaviour, were defined and discussed in further detail. The relationship between the constructs measured in this study was highlighted and discussed, using the Theory of Planned Behaviour as the theoretical framework. This chapter concluded with the hypotheses generated from the review of literature. In the proceeding chapter, the methodology of how this study set out to test the proposed hypotheses will be detailed.

Chapter 3

Method

This chapter outlines and describes research design and data collection techniques used in the current study. The research design, sampling technique and measures used to assess the variables under study are detailed, followed by this study's ethical considerations.

Research Design

This study investigated the relationship between cyber-loafing and the Theory of Planned Behaviour amongst administrative support staff in South African organisations. To empirically test this relationship, an explanatory quantitative cross-sectional descriptive research design was applied for the following reasons: firstly, a cross-sectional design is used in studies which aim to establish the prevalence of a particular phenomenon in a target population at a given point in time (Singh Setia, 2016). Secondly, positivist research posits that phenomena such as cyber-loafing and the Theory of Planned Behaviour can be empirically measured (Terre Blanche, Durrheim & Painter, 2006).

Sample

To participate in the survey, there were two inclusion criteria: first, participants needed to be employed in a role that provided formal administrative support. Second, participants were required to use an electronic device such as a computer for work. To find a sample that possessed these characteristics, non-probability purposive and convenience sampling with a snowball effect were utilised. Purposive sampling was used as the sample considered needed to possess the aforementioned requirements to be included in the study. Convenience and snowball sampling were used to assist in gaining more participants who met the criteria (Terre Blanche, Durrheim & Painter, 2006). Those who met the participation criteria were encouraged to forward the study to other potential participants with the same desired characteristics.

Data from 146 participants were collected. To create a composite score for each scale, participants needed to have completed at least 75% of the scale (Reichmann et al., 2010). Only 63% ($N = 92$) of participants provided enough data, and the rest ($N = 54$) were discarded.

In the final sample, respondents ranged between 22 and 76 years of age ($M = 41.35$, SD = 12.21), with seven respondents preferring not to answer. There were 82 female and 10 male respondents. Eighty-five respondents worked full-time, five part-time and two preferred not to answer. Table 2 below presents the descriptive statistics and demographics of this study.

Table 2

Demographic Descriptive Statistics

Variable		*N*	*M*	*SD*	Minimum	Maximum
Age		85	41.35	12.21	22	76
	Prefer Not to Answer	7				
Gender						
	Female	82				
	Male	10				
	Other	0				
	Prefer Not to Answer	0				
Race						
	Asian	2				
	African	12				
	Coloured	40				
	Indian	8				
	White/Caucasian	26				
	Prefer Not to Answer	4				
Basis of Employment						
	Full-time	85				
	Part-time	5				
	Prefer Not to Answer	2				

Measures

A 44-item online survey was administered to measure this study's variables of interest (see Appendix B for the survey). The benefit of an online questionnaire was the ability to reach more respondents in a shorter period of time and allowing participants the chance to

respond in their own time. Each of this study's measures were chosen on the basis of having a Cronbach's alpha (α) of above .70 (Pallant, 2016).

Cyber-loafing. To measure cyber-loafing, a 19-item scale developed by Askew (2012) was used. This scale was extended from Lim's (2005) 15-item cyber-loafing scale. Participants were asked to respond to each of the statements on a 6-point Likert scale indicating how often they engage in any of the items, where *1 = "Never" and 6 = "Constantly"*. An example of one of the statements was: "*Visit non-job-related websites*". In Askew's (2012) study, this scale had a reported Cronbach's alpha of .92.

Intention to Engage in Cyber-loafing. This was measured using a 6-item scale developed by Askew et al. (2014). Participants were asked to rate each statement according to their intention to have engaged in cyber-loafing activities on a bipolar continuum (or semantic differential scale) with seven spaces between the two polar options: extremely unlikely to extremely likely. Respondents were required to respond by representing the extent to which pole they agree with. An example of such a statement was: "*I intend to shop online while at work at least once in the forthcoming month.*" This scale had a sufficient Cronbach's alpha of .79 (Askew, 2012; Askew et al., 2014).

Subjective Social Norms. A 12-item scale adapted by Askew et al. (2014) was used to measure subjective social norms. This scale comprised two sub-scales: descriptive and prescriptive norms, each containing six items.

The descriptive norms sub-scale asked participants to rate six statements, which were divided into two categories for supervisors and co-workers, according to a 6-point Likert scale where *1 = "Never"*, *3 = "A Few Times a Day",* and *6 = "Constantly"*. An example of a scale item was "*How often do your co-workers do each of the following things during work hours?*" with one of the three options under this heading being, "*Visit non-job-related*

websites?" The descriptive norms scale had a reported Cronbach's alpha of .95 (Askew et al., 2014).

The prescriptive norms sub-scale asked participants to rate six statements along a 5-point Likert scale, where *1 = "Strongly Disapprove"* and *5 = "Strongly Approve"*. An example of such a scale item was: "*My co-workers would approve of me visiting non-job-related websites*" (Askew et al., 2014). Askew et al.'s (2014) research comprises two studies. In Study 1, this scale had a reported Cronbach's alpha of .85. In Study 2, a Cronbach's alpha of .90 was reported (Askew et al., 2014).

Perceived Behavioural Control. To measure PBC, a 3-item scale was developed by Askew et al. (2014). Participants rated their perceived ability to access intended websites on a 6-point Likert scale. Respondents were asked to rate each statement, for example: "*My favourite websites are blocked at work*", where *1 = "Disagree Very Much"* and *6 = "Agree Very Much"*. This scale had a Cronbach's alpha of .86 (Askew et al., 2014).

Attitude Towards Cyber-loafing. This variable was measured by a 4-item scale (Askew et al., 2014). Participants were asked to rate the extent to which they thought cyber-loafing was: worthless/valuable, unenjoyable/enjoyable, harmful/beneficial and bad/good. For each bipolar continuum, participants were asked to place an "*X*" in the space that best represented their attitude towards cyber-loafing. The reported Cronbach's alpha of this scale was .88 (Askew, 2012).

Procedure

The measures of this study were compiled into an online self-report questionnaire using the Qualtrics platform. Once the questionnaire was compiled, a link was generated which led participants to the questionnaire. The link was posted on multiple social media platforms, such as LinkedIn and Facebook, as well as sent via email to various people that the researcher knew personally who met the sample criteria. Participants were encouraged to

share the link with other colleagues, friends and family members who were eligible to participate. To access the questionnaire, participants were required to click on the link which directed them to the questionnaire's front page which contained instructions on how to complete the questionnaire, and informed consent. These questionnaires were distributed amongst employees who provided administrative support at the University of Cape Town (UCT). The surveys were distributed physically by the researcher by going to different departments across UCT. To prevent participants filling in both the online and hardcopy version of the survey, they were asked if they had completed the online version before being given the hardcopy. Participants were given the option either to fill in the survey immediately, or to have the surveys collected at a later stage once they had been completed. Most participants opted to fill in the survey at their convenience and have the survey collected by the researcher. Fifty-four hardcopies were completed and collected.

Ethical Considerations

Before the study was conducted, the researcher obtained ethical clearance from the University of Cape Town's Commerce Faculty's Ethics Committee and UCT's Human Resources Department to use administrative staff (see Appendix C). The rest of the participants were obtained through either social media or participants forwarding the survey link to others.

Before respondents could participate in the study, they were asked for consent. This informed consent detailed the risks and benefits associated with the research; how anonymity and confidentiality were guaranteed; that only aggregated responses obtained from the data would be used for analyses and reporting of findings; and that participants were free to withdraw from the study at any point without consequence. Anonymity and confidentiality were explained clearly to participants. Anonymity was ensured by not collecting any identifiable information, such as name or contact number. Only basic demographic

information from respondents such as age, gender and on which basis they worked (i.e. part- or full-time) was collected. Participants were provided with a "*prefer not to answer*" option to all of these questions. To maintain confidentiality, only the researcher had access to the hardcopy, softcopy and Qualtrics surveys. Hardcopy surveys were stored in a lockable cupboard; Qualtrics and softcopy surveys were stored on a password-protected laptop.

For the Qualtrics version of the survey, permission was obtained by requesting participants to select their response (either "*yes, I do consent*" or "*no, I do not consent*"). If they did not consent, they were rerouted out of the survey. For the hardcopy version of the survey, the same question was included on the front cover of the questionnaire, and consent was obtained by requesting participants either tick or cross the box with their response.

Data Analysis

Once the online and hardcopy questionnaires were captured, the data were exported for cleaning and analysis. For data collected on Qualtrics, responses were exported into IBM's Statistical Pack for the Social Sciences (SPSS) version 25 for cleaning and analysis. Data collected by hardcopy surveys were captured using the same format as the Qualtrics exported data. After the data had been captured, the two data sets were then merged into a single file. To ensure that there were no errors or missing data, descriptive statistics were run and analysed, ensuring that all values were within plausible ranges and valid. Preliminary analyses, which include reliability and validity, were run on all scales. Following this, descriptive analyses were conducted. To test Hypotheses 1 and 2, multiple regressions were run. To test Hypothesis 3, a simple linear regression was conducted. Finally, to test Hypothesis 4, a moderated regression analysis was run.

Conclusion

This chapter detailed the research methodology, procedure, sample and sampling techniques used to obtain the data to assess the current study's hypotheses. The results obtained from the statistical analyses are discussed in the following chapter.

Chapter 4

Results

The aim of this study was to explain cyber-loafing behaviour amongst those who provided administrative support to other employees or clients, using the Theory of Planned Behaviour. In the previous chapter, data were cleaned and analysed using SPSS. Descriptive analyses were conducted for all measures. A standard multiple regression analysis was used to test Hypotheses 1 and 2. To test Hypothesis 3, a simple linear regression was used. Finally, to test Hypothesis 4, a moderated multiple regression analysis was conducted.

Preliminary Analysis

Before any analyses could be run, the data underwent cleaning. The data were imported from Qualtrics into SPSS. The hardcopy surveys were also captured to SPSS, and all data were consolidated. Once the data were consolidated, only participants that completed 75% of each scale in the survey were kept to allow a valid aggregated score for each scale to be generated (Reichmann et al., 2010). Cases that had missing values were excluded pairwise during each of the hypotheses' testing. Once this was done, the data were then coded for further analysis.

For both the "*intention to engage in cyber-loafing*" and "*attitude towards cyber-loafing*" scales, responses were recoded as they were measured using semantic differential scales and needed to be quantified for analysis. To recode these scales, each space was allocated a value to represent a Likert scale. For the intention to engage in cyber-loafing scale, all six scale items ranged from "*extremely unlikely*" to "*extremely likely*". Each scale item comprised seven spaces where each space ranging from "*extremely unlikely*" to "*extremely likely*" was coded -3 to 3, respectively. The attitude towards cyber-loafing scale was recoded similarly. For each of the four scale items, the seven spaces ranging from the negative attitude towards the positive, were recoded from -3 to 3, respectively. For both

scales, a negative score reflected a negative attitude or intention, and a positive score reflected a more positive intention or attitude.

For the perceived behavioural control scale, only scale item 3 was reverse coded. This was to ensure that all items were worded in the same direction for comparison and to enable a composite score to be calculated. Since scale items 1 and 2 were already negatively worded, no reverse-coding was necessary. These scale items were coded according to the Likert scale where *1 = "Disagree very much"* was coded as 1, and *6 = "Agree very much"* was coded as 6. However, in relation to scale items 1 and 2, scale item 3 was positively worded. For scale item 3, participants were asked to what extent they could access internet sites, not the extent to which their organisation restricted their access, requiring the item to be reverse coded. Each response on the 6-point Likert scale was reverse coded in SPSS. For example, where participants responded to scale item 3 with *1 = "Disagree very much"*, this was reverse coded to *6 = "Agree very much"* and vice versa for all responses ranging from 1 to 6.

Once data for the PBC scale was reverse coded, average scores were generated for each scale by obtaining the mean of all scale items. For example, to obtain an overall score for the PBC scale, a mean was generated from scale items 1, 2 and 3. These means for each scale depicted the overall score of a participant.

Reliability Analysis. To test reliability, Cronbach's alpha was used. A threshold of .70 was applied where scales with alphas of .70 and above were deemed sufficient (Pallant, 2016). Below is a summary of the alphas for each scale, and the resulting alphas once problematic scale items were deleted (see Appendix E for all the item-total statistics of each scale). Details of reliability analysis for each scale are now discussed.

Table 3

Summary of Reliability Results for Each Scale

Scale	Cronbach's Alpha with No Items Deleted	Cronbach's Alpha when Scale Items Deleted
Cyber-loafing Scale	.84	.86
Subjective Social Norms	.87	.86
Prescriptive Social Norms	.85	-
Descriptive Social Norms	.89	.90
Attitude	.90	-
Perceived Behavioural Control	.74	-
Intention	.88	.94

Note: Spaces denoted by a '-' indicate no change in Cronbach's alpha.

Cyber-loafing. The cyber-loafing scale obtained a Cronbach's alpha of .84, which according to Field (2012) is acceptable, as it is above the threshold value. All items, except for scale items 8, 9, 10 and 18, had an item-total correlation above .30 ($.31 < x < .67$) (see Table 11 in Appendix D for all item-total correlations and corresponding alphas). According to Field (2012), scale items with correlations less than .30 were considered problematic as they did not correlate sufficiently with the overall scale. Scale items 8, 9, 10 and 18 had item-total correlations ranging from .02 to .26 and needed to be removed. These scale items were removed in ascending order; the lowest item-total correlation which corresponded with scale item 18 was removed first. After Item 18 was removed, reliability was rerun and a Cronbach's alpha of .85 was obtained, which was still considered acceptable (Field, 2012). However, Items 8, 9 and 10 still had item-total correlations below .30 ($.003 < r < .27$), even after removing Item 18 (see Table 12 in Appendix D). Item 9, which had the lowest item-total correlation of .003 was removed and reliability was rerun. A Cronbach's alpha of .85 was obtained. Although satisfactory, Items 8 and 10 still had item-total correlations below .30 ($.20 < r < .27$) (see Table 13 in Appendix D). Item 8, which had the lowest item-total correlation, was removed and reliability was rerun. Once this had been done, the Cronbach's alpha obtained was .85, but Item 10 still had an item-total correlation of .27 (see Table 14 in

Appendix D). As a consequence, reliability was rerun with the exclusion of Item 10. Once these items had been removed, Cronbach's alpha remained at .85 and all item-total correlations were above .30 (.35 < *r* <.68) (see Table 15 in Appendix D). However, although Item 5 had an item-total correlation of above .30, if the item were to be excluded Cronbach's alpha would increase to .86. Cronbach's alpha was rerun and an alpha of .86 was obtained and all item-total correlations were above .30. The cyber-loafing scale was reduced to a reliable 14-item scale for further analysis (see Table 16 in Appendix D).

Subjective Social Norms. This scale comprised two sub-scales, namely: prescriptive and descriptive norms. Reliability for this scale was determined in two parts. Firstly, the overall reliability was determined. Secondly, the reliability for each of the sub-scales was analysed. The composite subjective social norms scale obtained a Cronbach's alpha of .87 which is deemed satisfactory (Field, 2012). All item-total correlations were above the satisfactory threshold of .30 (.40 < *r* < .73) (see Table 17 in Appendix D). Reliability analysis was rerun and a Cronbach's alpha of .86 was obtained for the overall scale (see Table 18 in Appendix D).

The reliability for prescriptive and descriptive norms was determined separately, as outlined below:

Descriptive Norms. This measure comprised six scale items. A satisfactory Cronbach's alpha of .89 was obtained. The item-total correlations ranged from .54 to .77 (see Table 19 in Appendix D). Even though the item-total correlations were deemed satisfactory, should the item "*How often do your co-workers do each of the following things during working hours: Visit social networking sites (Facebook etc.)"* be removed, the scale's alpha would increase to .90. The item was excluded from the reliability analysis, and a Cronbach's alpha of .90 was obtained. The scale was reduced to a reliable 5-item scale (see Table 20 in Appendix C).

Prescriptive Norms. In the current study, the Cronbach's alpha obtained for this 6-item sub-scale was .85, which is considered satisfactory (see Table 19 in Appendix D). No scale items needed to be removed as the item-total correlations ranged from .59 to .69, and a removal of any of the scale items would decrease the scale's Cronbach's alpha.

Attitude. For this scale, a Cronbach's alpha of .90 was obtained which indicates high reliability (Field, 2012). All item-total correlations obtained were above .30 ($.74 < r < .82$), no items were removed, and the scale was considered reliable (see Table 21 in Appendix D).

Perceived Behavioural Control. The Cronbach's alpha for this scale was .76. All three of the scale items had item-total correlations above .30 ($.55 < r < .64$), no items needed to be removed, and the scale was deemed reliable (see Table 22 in Appendix D) (Field, 2012).

Intention. This scale had a reliability of $\propto = .88$, with all item-total correlations above .30 ($.42 < r < .84$) (see Table 23 in Appendix D). Even though Item 6 had an item-total correlation of above .30, the scale without this item would have an increased Cronbach's alpha of .91. Item 6 was excluded, reliability was rerun, and the scale obtained an alpha of .91 (see Table 24 in Appendix D). Although Item 1 had an item-total correlation of above .30, with its exclusion, the scale's alpha would increase to .94 (see Table 25 in Appendix D). Item 1 was removed, and reliability was rerun. Intention to engage in cyber-loafing was reduced from a 6- to a 4-item scale with an alpha of .94.

Once the reliability of the scales was established, the validity analyses of the scales was conducted.

Validity Analysis. Since the objective of this study was to explore the relationship between cyber-loafing, subjective social norms, attitude towards cyber-loafing, perceived behavioural control and intention to engage in cyber-loafing within a different context, and

using a different sample than the original study, it was considered appropriate to run an exploratory factor analysis (EFA).

To determine the validity of the scales used in this research, an EFA was conducted. The technique utilised to conduct an EFA was principal component analysis (PCA). PCA was chosen in order to identify the underlying constructs of each measure (Field, 2012). To run a PCA, there were two assumptions that needed to be met: sample size and the correlation between the different scale variables. These were assessed as follows: firstly, the sample size adequacy was assessed through the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for each scale. In order for the sample to be deemed adequate, the KMO statistic needed to be above .50 (Field, 2012). As indicated below in each scale analysis, all KMO statistics were above the threshold.

Secondly, the items in each scale needed to be sufficiently correlated with each other. This was assessed through Bartlett's Test of Sphericity. For this assumption to be met, Bartlett's Test of Sphericity needed to be significant at the .05 or .01 levels (Field, 2012). As these assumptions were met, it was appropriate to run a PCA on all scales.

Cyber-loafing. The reduced 15-item cyber-loafing scale obtained a KMO value of .79, which demonstrates that the sampling was adequate. Bartlett's Test of Sphericity was significant ($x^2_{91} = 500.25$, $p < .01$) which indicates that all 14 scale items were correlated. Due to the KMO value obtained being larger than .50 and Bartlett's Test of Sphericity being significant, it was appropriate to run a principal components analysis with the 19-item scale (Field, 2012).

A scree plot was used to determine how many of the extracted components should be retained (Field, 2012). The point of inflexion (where the gradient of the graph changes significantly) lay on Component 2 (see Figure 1 in Appendix E), therefore only one component was retained (eigenvalue = 5.15, explained variance = 36.79%). All items loaded

significantly onto Component 1 (.44 < *r* < .79) (see Table 26 in Appendix E). This scale was considered to be unidimensional and measuring only one construct of cyber-loafing.

Intention. For this scale, a value of .83 was obtained for the KMO measure of sampling adequacy. This means that the sample size was adequate to run a PCA across all six items. Bartlett's Test of Sphericity was significant, where $x^2_6 = 324.82$, p < .01, indicating a sufficient intercorrelation of scale items. From this finding, it was concluded that a PCA could be run across the 4-item scale (Field, 2012).

As part of the PCA, a scree plot was constructed to determine which components to retain. For this scale the point of inflexion lay on Component 2, and only one component was extracted (eigenvalue = 3.36, explained variance = 84.03%; see Figure 2 in Appendix E). All items loaded significantly onto the one extracted component (.89 < r < .94). It was concluded that this scale was unidimensional in that it measured intention to engage in cyber-loafing activity.

Attitude. The KMO value for this 4-item scale was .76, and Bartlett's Test of Sphericity was significant ($x^2_6 = 245.35$, p < .01). This meant that the sample size was adequate, and all items were sufficiently correlated to warrant a PCA (Field, 2012).

The scree plot for this scale indicated that one component was to be extracted, as the point of inflexion lay on Component 2 (see Figure 3 in Appendix E). Component 1 had an eigenvalue of 3.07 and explained 76.70% of the variance in the scale. All scale items loaded significantly on component 1 (.82 < r < .91).

Subjective Social Norms.

Prescriptive Norms. For the KMO measure of sampling adequacy, a value of .60 was obtained. Bartlett's Test of Sphericity was found to be significant ($x^2_{15} = 330.53$, p < .01). Based on these two results (where the sample size was adequate, and all six scale items correlated), a PCA was run across all prescriptive norm scale items.

Figure 4 (in Appendix E) shows the scree plot constructed for this scale. Due to the point of inflexion being on Component 2, only one component was extracted. Component 1 had an eigenvalue of 3.50 and explained 58.29% of the variance in the scale.

All components, as per the component matrix, loaded significantly onto Component 1 (.69 < r < .81). This scale was considered to have measured the prescriptive norms component of the overall subjective social norms variable.

Descriptive Norms. The KMO value obtained for this 6-scale item was .76, indicating that the sample size was adequate to run a PCA across all items of this scale. Bartlett's Test of Sphericity was found to be significant $x^2_{10} = 309.26$, p < .01, indicating that all scale items were correlated. Based on both these initial checks, it was considered appropriate to run a PCA.

A scree plot was generated of all components and their corresponding eigenvalues. Figure 5 (in Appendix E) shows that one component was extracted as the point of inflexion lay on Component 2, and all components to the left of the point of inflexion were extracted. Only Component 1 (eigenvalue = 3.56; variance explained = 71.13%) was extracted.

The component matrix also showed that all components loaded significantly onto Component 1 (.76 < r < .90). This scale was considered unidimensional and to have measured descriptive norms.

Perceived Behavioural Control. This scale obtained a KMO value of .69. Bartlett's Test of Sphericity was significant, where $x^2_3 = 73.38$, p < .01. Respectively, this means that the sample size was adequate to run a PCA, and all six scale items correlated. Both statistics indicated that a PCA across the scale was appropriate to conduct.

The scree plot indicated that one component should be extracted. As the point of inflexion lay on Component 2, one component was extracted (Figure 6 in Appendix E)

(Field, 2012). Component 1 had an eigenvalue of 2.07 and accounted for 68.85% of the variance explained in the scale.

According to the component matrix, all components loaded significantly onto the one extracted component ($.62 < r < .73$), rendering the scale unidimensional and measuring PBC.

Descriptive Statistics

The six scales were scored differently. The cyber-loafing scale was scored on a 6-point rating scale, with most respondents indicating engaging in cyber-loafing behaviours "a few times per week", with a small amount of variability amongst responses ($M = 2.53$, $SD = .77$, $n = 92$).

Intention to engage in cyber-loafing was measured using a semantic differential scale, where responses ranged from "*extremely unlikely"* to "*extremely likely"*. This scale had a mean of -.44 which meant that, on average, respondents less likely intended to engage in cyber-loafing activities at work ($SD = 1.80$, $n = 92$).

Attitude towards cyber-loafing was measured using four separate semantic differential scales, with the left-hand side of the scale indicating a negative regard, and the opposite side representing a more positive regard, and a score of 0 indicating indifference. On average, respondents' attitudes towards cyber-loafing were slightly more positive ($M = 1.37$, $SD = 1.36$, $n = 92$).

Subjective social norms were measured by both prescriptive and descriptive norms. Prescriptive norms were measured using a 5-point Likert scale. The results indicated that respondents felt that their co-workers and supervisors did not have a definite view on engaging in cyber-loafing behaviour ($M = 3.03$, $SD = .67$, $n = 92$). The finding indicates that co-workers and supervisors of those who provide administrative support would not condone cyber-loafing behaviour but would not reprimand the behaviour either.

Descriptive norms were measured on a 6-point Likert scale. The results showed that, on average, respondents perceived co-workers and supervisors to be engaged in cyber-loafing activities *"a few times per week"* ($M = 3.62$, $SD = 1.30$, $n = 92$).

Perceived behavioural control was measured on a 6-point Likert scale. Respondents *"disagreed slightly"* that they had control over their cyber-loafing behaviour ($M = 2.89$, $SD = 1.55$, $n = 92$). That is, respondents felt that they did not have complete control over their behaviours.

Table 4 provides a summary of the descriptive statistics for all scales.

Table 4

Descriptive Statistics

Variable	*N*	*M*	*SD*	Minimum	Maximum
Cyber-loafing	92	2.53	.77	1.07	4.87
Intention	92	-.44	1.80	-2.80	3.00
Attitude	92	1.37	1. 36	-2.50	3.00
Subjective Social Norms					
Prescriptive Norms	92	3.03	.67	1.00	5.00
Descriptive Norms	92	3.62	1.30	1.00	6.00
Perceived Behavioural Control	92	2.89	1.55	1.00	6.00

Table 5 below provides a summary of all measurement scales, descriptive statistics and intercorrelations.

Table 5

Descriptive Statistics and Intercorrelations

Variable	*M*	*SD*	1	2	3	4	5	6
1. Cyber-loafing	2.53	.77	-					
2. Attitude	1.37	1.36	.35**	-				
3. Prescriptive Norms	3.03	.67	.40**	.31**	-			
4. Descriptive Norms	3.62	1.30	.45**	.39**	.35**	-		
5. Perceived Behavioural Control	2.89	1.55	-.01	-.09	-.10	-.05	-	
6. Intention	-.44	1.80	.41**	.33**	.27**	.28**	-.16	-

*Note. **Correlation is significant at p < .01 (two-tailed).*

Test of Hypotheses

Hypothesis 1. To test Hypothesis 1, a standard multiple regression was used. Before a multiple regression analysis was run, the following assumptions were tested:

Evaluation of Assumptions.

Sample Size. Tabachnik and Fidell (2007) provide an equation for working out the sample size requirements, where N > 50 + 8m (*m* denotes the number of independent variables). This study comprised four independent variables, one moderator variable and one dependent variable. The total sample size required to utilise a standard multiple regression analysis was N > 50 + 8(4) = 82. This study had a sample size of 92, therefore this assumption was met for all hypothesis testing.

Multicollinearity. To assess multicollinearity, tolerance and the Variance Inflation Factor (VIF) were analysed. These statistics indicate if the independent variables are highly correlated with each other (Pallant, 2016). According to Pallant (2016), the tolerance value should not be less than .10, and the VIF statistic should not exceed 10. The tolerance statistics for each of the variables in this hypothesis were larger than .10, ranging from .80 to .99.

Similarly, the VIF statistics were larger than 1, with values ranging from 1.02 to 1.26. This assumption was met as there was no multicollinearity.

Outliers. This assumption was assessed using Mahalanobis distance. Tabachnik and Fidell (2001) provided a set of guidelines to assess Mahalanobis distance. This hypothesis has four independent values and none of the Mahalanobis distance values exceeded the critical value of 18.47. There was only one extreme outlier, with a Mahalanobis distance value of 20.56, above this threshold value. To determine whether this case should be removed, Cook's distance was assessed. According to Tabachnik and Fidell (2007), if any case has a value larger than 1, this is cause for concern. However, in this particular case, the maximum Cook's distance value was .18, therefore this case did not need to be removed.

Normality, Homoscedasticity, Linearity and Independence of Residuals. To assess these assumptions, the Normal Probability Plot and residuals scatterplot were assessed. The points in the Normal Probability Plot should represent a fairly diagonal line. Looking at Figure 7 in Appendix F, the values fell in a fairly straight line around the line of best fit. This indicates that there may be a violation in normality and that this hypothesis may not necessarily be generalised to the wider population. The residuals in the residual scatterplot should not resemble any pattern or shape but be arranged somewhat rectangularly along the centre (zero) point (Pallant, 2016). Looking at Figure 8 in Appendix F, the values did not resemble a pattern, providing evidence that the assumptions may not be violated.

Since the assumptions were upheld, a standard multiple regression was conducted.

Below is a tabular summary of the standard multiple regression analysis. The results from the standard multiple regression show that subjective social norms, attitude towards cyber-loafing and perceived behavioural control were found to be statistically significant predictors of intention to engage in cyber-loafing (F (4, 87) = 4.30, $p < .01$), providing support for Hypothesis 1. All four predictors explained 17% of the variance in intention (R^2 =

.17). This means that attitude, prescriptive norms, descriptive norms and PBC collectively contribute to predicting intention to engage in cyber-loafing.

Table 6

Summary of Standard Multiple Linear Regression Results for Hypothesis 1

Predictor	B	SE B	β	*p*
Constant	-2.24 (-4.13, -.354)	.95		$p < .05$
Descriptive Norms	.19 (-.11, .49)	.15	.14	$p = .21$
Prescriptive Norms	.37 (-.20, .93)	.29	.14	$p = .20$
Perceived Behavioural Control	-.14 (-.36, .09)	.12	-.12	$p = .24$
Attitude	.29 (.01, .58)	.14	.22	$p = .05$

Note. 95% confidence intervals in brackets.

Hypothesis 2. To test Hypothesis 2, a standard multiple regression was used. In order to run a multiple regression analysis, the following assumptions were tested:

Evaluation of Assumptions.

Multicollinearity. To assess multicollinearity, tolerance and VIF were analysed. According to Pallant (2016), the tolerance value should not be less than .10, and the VIF statistic should not exceed 10. The tolerance statistics for each of the variables in this hypothesis were larger than .10 ranging from .80 to .99. Similarly, the VIF statistics were larger than 1, with values ranging from 1.02 to 1.23. This assumption was met as there was no multicollinearity.

Outliers. This assumption was assessed using Mahalanobis distance. Tabachnik and Fidell (2001) provided a set of guidelines to assess Mahalanobis distance. This hypothesis had four independent values and none of the Mahalanobis distance values should exceed the critical value of 18.47. There was only one extreme outlier, with a Mahalanobis distance value of 20.56, above this threshold value. To determine whether this case should be

removed, Cook's distance was assessed. The maximum Cook's distance value was .09. As such, this case did not need to be removed.

Normality, Homoscedasticity, Linearity, Independence of Residuals. To assess these assumptions, the Normal Probability Plot and residuals scatterplot were assessed. Looking at Figure 9 in Appendix F, the values fell in a fairly straight line around the line of best fit. Furthermore, looking at Figure 10 (in Appendix F), the residual plots do not resemble a pattern, providing evidence that the assumptions have not been violated (Pallant, 2016).

The results from the standard multiple regression show that subjective social norms, attitude towards cyber-loafing, and perceived behavioural control were found to be statistically significant predictors of cyber-loafing behaviour (F (4, 87) = 9.00, $p < .01$). All four predictors explained 29.30% of the variance ($R^2 = .29$), providing support for Hypothesis 2. However, of the four predictors, only descriptive ($\beta = .31$, $p < .01$) and prescriptive norms ($\beta = .25$, $p < .05$) were found to be unique contributors. The results of this hypothesis show that all predictor variables contribute to predicting cyber-loafing behaviour amongst those who provide administrative assistance in South African organisations. Both prescriptive and descriptive norms contribute uniquely towards cyber-loafing and explain variance in cyber-loafing behaviour that the other variables do not (Pallant, 2016). Furthermore, descriptive norms were found to be the strongest predictor of cyber-loafing behaviour.

Table 7 presents a summary of the standard multiple regression analysis.

Table 7

Summary of Standard Multiple Linear Regression Results for Hypothesis 2

Predictor	b	SE B	β	*P*
Constant	.81 (.07, 1.56)	.37		$p < .05$
Descriptive Norms	.19 (.07, .30)	.06	.31	$p < .01$
Prescriptive Norms	.28 (.06, .51)	.11	.25	$p < .05$
Perceived Behavioural Control	.02 (-.07, .11)	.05	.05	$p = .62$
Attitude Towards Cyber-loafing	.09 (-.03, .20)	.06	.15	$p = .14$

Note. 95% confidence intervals in brackets.

Hypothesis 3. To test Hypothesis 3, that intention predicts cyber-loafing behaviour, a standard multiple regression was used. Before the regression analyses could be run, the following assumptions needed to be assessed.

Evaluation of Assumptions.

Multicollinearity. To assess multicollinearity, tolerance and VIF were analysed. According to Pallant (2016), the tolerance value should not be less than .10, and the VIF statistic should not exceed 10. This assumption was met as both the tolerance and VIF statistics were 1, indicating no multicollinearity.

Outliers. This assumption was assessed using the scatterplot (see Figure 11 in Appendix F). An outlier is classified as being more than 3.3 or less than -3.3. This assumption was met as there were no outliers.

Normality, Homoscedasticity, Linearity, Independence of Residuals. To assess these assumptions, the normal probability plot and residuals scatterplot were assessed. Looking at Figure 12 in Appendix F, the values fall closely around the line of best fit. Furthermore, looking at Figure 12 (in Appendix F), the residual plots do not resemble a pattern, providing evidence that the assumptions have not been violated.

The results from the standard multiple regression show that intention to engage in cyber-loafing was found to be a statistically significant predictor of cyber-loafing behaviour (F (1, 90) = 17.70, $p < .01$), providing support for Hypothesis 3. Intention explained 16.40% of the variance ($R^2 = .16$) and was found to be a unique contributor to cyber-loafing behaviour ($\beta = .41$, $p < .01$). As such, intention to engage in cyber-loafing predicted cyber-loafing behaviour. This means that in the sample under study, the stronger the person's intention to engage in cyber-loafing, the greater the likelihood they would cyber-loaf.

Table 8 below provides a tabular summary of the standard multiple regression analysis.

Table 8

Summary of Standard Multiple Linear Regression Results for Hypothesis 3

Predictor	B	SE B	β	*p*
Constant	2.60 (2.45, 2.75)	.08		$p < .01$
Intention to Engage in Cyber-loafing	.17 (.09, .26)	.41	.41	$p < .01$

Note. 95% confidence intervals in brackets.

Hypothesis 4. To test Hypothesis 4, four separate mediation analyses were conducted using *Process* (Hayes, 2018) in SPSS. Each of the predictor variables were input as independent variables with the other predictor variables as covariates, intention as the moderator and cyber-loafing as the outcome variable. To determine if there is mediation, the confidence interval range should not contain zero. If zero falls in this range, no mediation is evident (Field, 2012). The results from the mediation analysis showed that intention does not mediate the relationship between perceived behavioural control (b = -.03, 95% BCa CI [-.05, .01]), descriptive norms (b = .02, 95% BCa CI [-.01, .07]), and prescriptive norms (b = .04, 95% BCa CI [-.02, .14]). However, intention did mediate the relationship between attitude

and cyber-loafing (b = .03, 95% BCa CI [.001, .08]). These results indicate partial support for Hypothesis 4. These results show that intention only mediates the relationship between attitude and cyber-loafing behaviour. The more favourable an employee's attitude towards cyber-loafing is, the stronger their intention to engage in cyber-loafing and therefore the greater the likelihood is that they will cyberloaf.

Table 9 below provides a summary of all findings from each of the hypotheses tested in this study.

Table 9

Summary of Hypothesis Testing

Hypotheses	Outcome
Hypothesis 1: Prescriptive norms, descriptive norms, attitude and PBC collectively predict an employee's intention to engage in cyber-loafing.	Supported
Hypothesis 2: Prescriptive norms, descriptive norms, attitude and PBC collectively predict cyber-loafing.	Supported
Hypothesis 3: Intention predicts cyber-loafing.	Supported
Hypothesis 4: Intention mediates the relationship between prescriptive norms, descriptive norms, attitudes towards cyber-loafing, perceived behavioural control and cyber-loafing.	Partially Supported

Conclusion

This chapter detailed the results obtained from the statistical analyses conducted. Overall, the results showed support for the predictive relationships between the variables under study, but only partial support for the mediating effect of intentions in TPB amongst those who provide administrative support. In the next chapter, the above findings in light of relevant literature will be discussed.

Chapter 5

Discussion

The objective of this study was to investigate the appropriateness of the Theory of Planned Behaviour in explaining cyber-loafing amongst administrative support staff in South African organisations. Quantitative data was collected by means of a survey and subjected to descriptive and inferential statistics. In this chapter, findings from these analyses are presented and interpreted in reference to pertinent literature. The findings are presented in the following format: a brief recap of this study's purpose is presented, followed by a high-level summary of the findings. The findings generated are discussed in light of previous research. Finally, this chapter will conclude with limitations, directions for future research, and concluding remarks.

Purpose of this Study

With the advent of the internet in the workplace, the world of work has changed; new methods of working have emerged, such as telecommuting, and new businesses and organisations built around the internet have emerged (Mercado et al., 2017). The internet has changed the world of work, as well as the way in which people work. Since organisations have incorporated the internet into daily operations and functioning, employees have both utilised and abused the internet at work (Sheikh et al., 2015). Although the internet has provided numerous benefits to both employees and organisations, employees have harnessed the use of their internet access at work for personal activities, a phenomenon termed cyber-loafing (Lim, 2002). Since the advent of the internet and internet-enabled technology, the conceptualisation of cyber-loafing has also been modified to encompass the changing technological landscape (Mercado et al., 2017). The characteristics of cyber-loafing and its consequences lends itself to being positioned in the broader CWB literature as a withdrawal behaviour (Askew, 2012). TPB has been shown to predict other withdrawal behaviours

(Askew, 2012). The objective of this study was to investigate the Theory of Planned Behaviour as a model to explain cyber-loafing amongst administrative support staff in South African organisations.

The following key findings were reported for this study:

- Prescriptive norms, descriptive norms and attitude predicted both intention and cyber-loafing behaviour.
- Prescriptive and descriptive norms were shown to be the most significant predictors of cyber-loafing.
- Partial support was found for TPB as a model to explain cyber-loafing, because intention only mediated the relationship between attitude and cyber-loafing.

Reliability and Validity of Measures

It is important to establish the reliability and validity of the scales used in this research because they were validated using a different sample. Therefore, it is important to determine whether this study's scales measure what they purport to (validity), and if the scales are stable if used over time (reliability) in the sample under study (Pallant, 2016).

Cyber-loafing. An EFA conducted on this scale determined it to be unidimensional once reduced. As such, the universality of the original scale modified by Askew (2012) could not be established in this study's sample.

Intention. After running an EFA and removing two items, this measure was established as unidimensional. This is contrary to findings from Askew et al. (2014) which established the validity of the original 6-item scale. This means that of the six items only the four remaining scale items measured intention to engage in cyber-loafing amongst administrative support staff in the South African context.

Attitude. The unidimensionality of this scale was confirmed by an EFA as all scale-items loaded onto a single factor. This contributes to the scale's universality as it was validated in a South African context amongst those who provide administrative support.

Subjective Social Norms. The validity of the measures underlying this construct are discussed as follows:

Prescriptive Norms. The reliability of this sub-scale was similar to findings by Askew et al. (2014). In addition, an EFA of this scale revealed the scale to be unidimensional and universal as it was validated in both an American and South African context.

Descriptive Norms. Similar to previous research around cyber-loafing and the Theory of Planned Behaviour (Askew, 2012; Askew et al., 2014; Sheikh et al., 2015), the EFA determined this scale to be unidimensional and therefore universal as it was validated in a South African context.

Perceived Behavioural Control. The preliminary analyses revealed that the scale used to measure PBC was unidimensional as all items loaded onto one factor, indicating that this scale measured PBC.

Relationship between Variables

Descriptive Norms, Prescriptive Norms, Attitude, PBC and Intention. Descriptive norms, prescriptive norms, attitude and PBC are each discussed separately in relation to intention.

Descriptive Norms and Intention. The results of this study show that there is a small positive correlation between descriptive norms and intention to engage in cyber-loafing. Askew et al.'s (2014) research consisted of two studies. In Study 1, which comprised of 429 employed students and workers, Askew et al. (2014) found descriptive norms to have a moderate positive relationship with intention. Similarly, in their sample of 195 employees from an Iranian copper mine, Sheikh et al. (2015) found a moderate relationship between

descriptive norms and intention. In conjunction with prescriptive norms, attitude and PBC, descriptive norms were found to be significant predictors of intention amongst this study's sample of administrative support staff. This is consistent with findings from Askew (2012), Askew et al. (2014) and Sheikh et al. (2015), who also found descriptive norms (in conjunction with the other variables) to be significant predictors of cyber-loafing intention.

This study's results suggest that, should South African administrative support staff employees perceive either their colleague(s) or supervisor to be cyber-loafing, this may contribute towards a greater motivation or intention to cyberloaf. To shape the intention amongst administrative support staff around cyber-loafing engagement, organisations would need to prevent cyber-loafing from being considered the norm. Should employees perceive cyber-loafing to be a norm within organisations, this would encourage intention and perhaps increase the incidence of cyber-loafing within organisations (Mercado et al., 2017). This could result in a decrease in employee productivity and organisational performance (Askew et al., 2014). Organisations would need to discourage the notion that cyber-loafing is acceptable and reduce the perception that other employees are engaging in cyber-loafing. Organisations may consider implementing culture initiatives and socialisation policies on cyber-loafing and what is acceptable to influence intentions around cyber-loafing (Sheikh et al., 2015). Knowledge of the negative consequences of cyber-loafing should influence employee intentions around cyber-loafing. The more disproving an employee's organisation or norm group is towards cyber-loafing, the less likely their intention to cyberloaf (Pelling & White, 2009). These interventions may be considered more favourable by employees as stricter policies and sanctions around cyber-loafing have been shown to have negative implications on employee morale (Pee et al., 2008).

Prescriptive Norms and Intention. In the current study, prescriptive norms were found to have a small but significant positive relationship with intention. This finding is

corroborated by Askew et al. (2014) who also reported a significant yet small correlation with intention in Study 1. However, in Study 2 prescriptive norms were reported to have a positive moderate relationship with intention (Askew et al., 2014). Prescriptive norms were also found to significantly predict intention in the current study. These findings are consistent with that of Askew et al. (2014), who found prescriptive norms to predict intention in both samples studied. These results suggest that the unspoken rules of the organisation around cyber-loafing seem to play a small yet influential role in the formation of an employee's cyber-loafing intention.

Interestingly, the results of this study revealed that both prescriptive and descriptive norms contribute equally towards intention, with identical standardised betas of .19. In contrast, in both Studies 1 and 2, Askew et al. (2014) found only descriptive norms to be a significant predictor of intention. The results of this study suggest that amongst administrative support staff in South Africa, perception of their supervisor and/or colleague(s) cyber-loafing, coupled with their organisation's unspoken rules around cyber-loafing, have an equal contribution in determining their own intention to engage in cyber-loafing. This suggests that both types of norms influence South African administrative support staff's intention to engage in cyber-loafing. Consistent with previous empirical findings (Askew, 2012; Askew et al., 2014; Blanchard & Henle, 2008) the results of this study seem to suggest the importance of norms in determining whether an employee intends to cyberloaf or not.

To control administrative support staff intentions towards cyber-loafing, organisations would need communicate to employees that cyber-loafing is not accepted and not a norm within the organisation. Similar to interventions used to influence descriptive norms, organisations could implement initiatives which influence organisational culture and socialise

organisational policy around personal internet use at work and consequently reduce an employee's intention to engage in cyber-loafing.

Attitude and Intention. In this study, attitude and intention were found to have the strongest relationship in comparison with the other three predictor variables. This result is mirrored by the findings from Askew (2012) and Askew et al. (2014). Askew (2012) found that in the sample of supervisors and subordinates from various organisations in the USA, attitude had a positive and moderate correlation with intention. Similarly, Askew et al. (2014) found similar results in both Study 1 and 2 in that attitude had a large positive relationship with intention. These results suggest that the more favourable an employee's attitude towards cyber-loafing, the greater their intention should be to cyberloaf. The opposite of this would also hold true. The less favourable an employee's attitude towards cyber-loafing, the less likely their intention to cyber-loaf.

Although none of the four predictor variables contributed uniquely towards the variance in intention, the results of this study reveal that attitude has the largest reported beta (.22). These findings are similar to that in extant literature. Askew et al. (2014) found attitude to be a significant predictor of intention in both Study 1 and 2. Similarly, Sheikh et al. (2015) demonstrated support for attitude as one of the strongest predictors of intention to cyber-loafing. In a similar study with a sample of 238 employees from a Finnish electrical company, Moody and Siponen (2013) also found attitude to be a predictor of behavioural intention.

In this study, attitude towards cyber-loafing was found to be the strongest predictor of intention amongst administrative support staff. This illustrates the instrumental role that attitude has in shaping intention. Ajzen (1991) noted in his seminal work on TPB that attitude was generally the most significant contributor towards intention, outweighing social norms for which findings were mixed. Attitude was found both to have the strongest relationship

with intention, and to be the strongest predictor of intention, followed by descriptive and prescriptive norms. This means that amongst administrative support staff, the more favourable their attitude towards cyber-loafing, the more they may intend cyber-loafing.

Similar to subjective social norms, organisations would need to influence attitudes around cyber-loafing, especially considering that more forceful sanctions on cyber-loafing may not have the intended effect (Pee et al., 2008). To influence the intention of administrative support staff towards cyber-loafing, and ultimately whether they actually cyberloaf or not, organisations would need to influence employee attitudes around cyber-loafing. Attitudes could be influenced through organisational policies around cyber-loafing, including illustrating to employees the implications of cyber-loafing on their and the organisation's performance. Since attitudes and social norms have the strongest predictive power in determining cyber-loafing intention amongst administrative support staff, should an organisation be successful in influencing attitudes and social norms around cyber-loafing, employees may be less likely to cyberloaf.

PBC and Intention. PBC did not significantly correlate with cyber-loafing intention, indicating that PBC does not seem to have a relationship with intention in the sample under study. This finding is not surprising. In his initial research on TPB and cyber-loafing, Askew (2009) did not find support for Ajzen's (1991) model of TPB, and instead proposed "ability to hide cyber-loafing" as a more robust predictor of intention and consequently cyber-loafing behaviour. Askew (2012) and Askew et al. (2014) further validated this assertion. Additionally, in a similar study, Sheikh et al. (2015) found support for the validity and universality of ability to hide cyber-loafing in place of PBC in predicting behavioural intention with a sample based outside of the USA. Collectively with the other predictors, PBC predicted cyber-loafing intention – although it was found to have the smallest influence and a negative beta weighting. Askew (2009) and Askew (2012) posit that cyber-loafing is

the type of behaviour that people will only engage in to the extent that they can get away with it, rather than their belief in how much control they have over the behaviour, as PBC suggests.

Overall, social norms and attitude towards cyber-loafing were found to be the strongest predictors of intention to cyberloaf amongst administrative support staff in South Africa. This is corroborated by previous research conducted by Askew (2012), Askew et al. (2014) and Sheikh et al. (2015). However, the aforementioned variables only explained 17% of the variance in intention, comparatively lower than the reported explained variance in previous works (Askew, 2012; Askew et al., 2014). This means that intention to cyberloaf amongst administrative support staff is jointly predicted by all four predictors, although it seems that attitude contributes the greatest weighting.

The more favourable cyber-loafing is considered amongst administrative support staff, the more likely their intention to engage in cyber-loafing during working hours. For organisations to influence intention to engage in cyber-loafing, and subsequently whether administrative support staff engage in cyber-loafing, the organisations could focus interventions around changing social norms and attitudes towards cyber-loafing, including socialising organisational policies around personal internet use in the workplace. Interventions targeted at these variables should have the greatest influence on intention to engage in cyber-loafing based on their greater predictive relationship with intention.

Descriptive Norms, Prescriptive Norms, Attitude, PBC and Cyber-loafing. Descriptive norms, prescriptive norms, attitude and PBC are discussed separately in relation to cyber-loafing.

***Descriptive Norms and Cyber-loafing*.** Descriptive norms were found to have a moderate positive relationship with cyber-loafing. Previous research on the relationship between TPB and cyber-loafing found similar results (Askew, 2012; Askew et al., 2014).

Furthermore, this study demonstrated that descriptive norms significantly predict cyber-loafing behaviour, in addition to being a unique contributor to the variance in cyber-loafing (Askew, 2012; Askew et al., 2014). This means that employees who provide administrative assistance may use their reference group to inform whether they do, or do not, cyberloaf. In relation to prescriptive norms, this study found descriptive norms to have a greater influence on cyber-loafing. This means that for organisations to reduce the incidence of cyber-loafing and the resulting impact on employee and organisational performance, organisational management and superiors would need to set examples for other employees by not engaging in cyber-loafing themselves (Moody & Siponen, 2013).

Prescriptive Norms and Cyber-loafing. In the current sample a moderate positive relationship was found between prescriptive norms and cyber-loafing. Askew et al. (2014) found prescriptive norms to have a significant but small relationship with cyber-loafing in Study 1. Study 2, however, which comprised of employed individuals, found support for this current study's findings where prescriptive norms were found to also have a significant moderately positive relationship with cyber-loafing (Askew et al., 2014).

Similar to descriptive norms, prescriptive norms were found to predict cyber-loafing in relation to the other variables' predictors. In addition, prescriptive norms were revealed to contribute uniquely to the variance in cyber-loafing. This study found both prescriptive and descriptive norms to be predictors of cyber-loafing, in addition to being the only predictor variables contributing uniquely to the variance in cyber-loafing. Contrary to this finding, Askew et al. (2014) did not find support for prescriptive norms as a predictor of cyber-loafing in either Study 1 or 2, or that descriptive norms were a better approximation for social norms (Askew et al., 2014).

The results seem to suggest that administrative support staff may cyberloaf if they perceive both their reference group to be cyber-loafing, and that cyber-loafing at work is not

considered as deviant. Similar to influencing intentions, organisations wanting to control the incidence of cyber-loafing would need to consider behavioural interventions and policies that influence cyber-loafing in the workplace (Sheikh et al., 2015). These behavioural interventions and policies would not only need to be demonstrated by an organisation's leadership, but appropriate consequences of engaging in cyber-loafing would also have to be communicated (Blanchard & Henle, 2008). Disciplinary mechanisms need to be appropriate for the type of cyber-loafing taking place, otherwise they may result in a decrease in employee morale and trust (Khansa, Barkhi, Ray, & Davis, 2017). The more serious the cyber-loafing, the more serious the disciplinary action should be.

Attitude and Cyber-loafing. The correlational analyses revealed that attitude had a moderately positive relationship with cyber-loafing. Just behind descriptive and prescriptive norms, attitude was found to have the third-strongest relationship of the predictor variables with cyber-loafing. As expected, although not a unique contributor towards the variance in cyber-loafing, attitude did – with the other predictor variables – significantly predict cyber-loafing. Liberman et al. (2011) found attitude to have a small positive relationship with cyber-loafing in their study on 143 employees from different industries across the United States of America. Similarly, Askew et al. (2014) and Sheikh et al. (2015) found attitude to be one of the strongest predictors of cyber-loafing.

In the current sample, attitude was found to be a significant predictor of cyber-loafing in relation to the other predictor variables. This means that amongst those who provide administrative assistance, the more favourable their attitude towards cyber-loafing, the higher the likelihood that they will cyberloaf. To control cyber-loafing amongst those who provide administrative assistance, organisations would need to implement behavioural interventions that would aim not only to impact descriptive norms around cyber-loafing, but to educate employees on the impact of cyber-loafing on their and the organisation's productivity.

Behavioural interventions targeting descriptive norms could also target attitudes as they both require educating employees about cyber-loafing and shifting mindsets.

PBC and Cyber-loafing. The correlational analyses of this study revealed that PBC has no significant relationship with cyber-loafing. PBC was not found to be a unique contributor to either intention or cyber-loafing behaviour. This result lends some support to the assertions made by Askew (2012), Askew et al. (2014) and Sheikh et al. (2015) who posit that a modified version of TPB where ability to hide cyber-loafing is a better predictor of cyber-loafing than PBC. This finding is not surprising as Askew (2012) did not find support for PBC as a significant predictor of cyber-loafing behaviour in a sample of supervisors and subordinates from various US firms. Instead, "ability to hide cyber-loafing" was found to be a better predictor of cyber-loafing intention and behaviour (Askew, 2012). This assertion is further supported by Sheikh et al. (2015) who found support for Askew's (2012) amended TPB model in a sample of 195 employees from a copper mine in Iran. These findings suggest that amongst those who provide administrative assistance in South Africa, the extent to which they could control their cyber-loafing behaviour does not have an influence on their cyber-loafing activities. This finding supports Askew's (2012) research on a modified version of the original TPB model by replacing PBC with "ability to hide cyber-loafing". In a similar vein, Pelling and White (2009) investigated the use of social networking websites (SNW) using TPB amongst university students aged between 17 and 24 in the USA. There was no evidence supporting PBC significantly predicting intentions or cyber-loafing behaviour. In their research, Askew et al. (2014) found ability to hide cyber-loafing a significant predictor of cyber-loafing behaviour. They suggest that reducing employees' ability to hide their activities and increasing transparency by orienting computers away from facing walls and making use of open-plan offices should decrease the incidence of cyber-loafing. As such, if

employees do not perceive or see evidence of their colleague(s) or supervisor engaging in cyber-loafing, the incidence of cyber-loafing may decrease (Askew et al., 2014).

All four predictor variables explained approximately 29.30% of the variance in cyber-loafing. Of these predictor variables, descriptive and prescriptive norms were shown to have the strongest relationship with cyber-loafing, and uniquely contribute towards the variance in cyber-loafing. This means that although all the TPB variables contribute towards an employee cyber-loafing, prescriptive and descriptive norms seem to have stronger predictive relationships with cyber-loafing. If an employee perceives their supervisors or colleagues to be cyber-loafing and that none of the other administrative support staff would disprove of cyber-loafing activities, this seems to have a greater influence on employee cyber-loafing behaviour, as opposed to simply having a favourable attitude towards cyber-loafing behaviour. Interventions would mainly need to target how employee internet usage is managed, whilst ensuring that organisational management, superiors and other employees carry out these organisational expectations and establish norms around cyber-loafing – that it is not acceptable use of an organisation's internet resource (Moody & Siponen, 2013)

Intention and Cyber-loafing. As expected, intention was found to be a significant predictor cyber-loafing behaviour. This finding is consistent with that of extant research on TPB and cyber-loafing by Askew (2012) and Askew et al. (2014). The correlational analyses showed that intention was moderately positively related to cyber-loafing. These findings suggest that amongst South African administrative support staff, the higher the intention to engage in cyber-loafing, the higher the likelihood of cyber-loafing. Surprisingly, this study revealed that the correlates of intention, prescriptive and descriptive norms with cyber-loafing were found to be similar. As such, interventions targeting social norms and attitude to decrease an employee's intention to engage in cyber-loafing should result in lesser likelihood

of an employee engaging in cyber-loafing due to the significant predictive power of intentions.

The Theory of Planned Behaviour as a Model to Predict Cyber-loafing. Unlike previous research conducted on cyber-loafing and TPB (Askew, 2012; Askew et al., 2014; Sheikh et al., 2015), intention did not mediate the relationship between prescriptive norms, descriptive norms, PBC and cyber-loafing amongst administrative support staff in this study. Intention only mediated the relationship between attitude and cyber-loafing. Previous work that has used TPB, or a modified version of the model, to explain cyber-loafing has found support for intention mediating the relationship between all the TPB predictor variables and cyber-loafing (Askew, 2012; Askew et al., 2014). These results are interesting in that they are not mirrored in other literature. As such, TPB did not have much explanatory power in predicting cyber-loafing amongst administrative support staff in South African organisations. The findings of this study suggest that the more favourable an employee's attitude towards cyber-loafing, the more likely their intention to engage in cyber-loafing, which would most likely result in them cyber-loafing. However, descriptive and prescriptive norms were also found to significantly predict intention and cyber-loafing behaviour. Therefore organisations should target interventions on both subjective social norms and attitude towards cyber-loafing.

Theoretical Implications

This study contributes to the growing body of literature on cyber-loafing in South Africa. The current study's results showed that only certain components of TPB explained cyber-loafing amongst those who provide administrative assistance, contrary to previous findings (Askew, 2012; Askew et al., 2014; Sheikh et al., 2015). Uniquely, this study found that intention only mediated the relationship between attitude and cyber-loafing, but that subjective social norms and attitude significantly predicted intention and cyber-loafing

behaviour. Similar to previous research, PBC did not emerge as a significant predictor of intention of cyber-loafing. Based on the nature of cyber-loafing, and having been validated in previous research (Askew, 2009, 2012; Askew et al., 2014; Sheikh et al., 2015), all of the other TPB components except for PBC were found to have significant relationships with cyber-loafing. These findings seem to suggest that the original model of TPB as proposed by Ajzen (1991) may not be the best predictor of cyber-loafing amongst those who provide administrative assistance in South African organisations, and that perhaps Askew (2012) and Askew et al.'s (2014) amended TPB model may be worthwhile investigating in a South African context.

Practical Implications

From the results, prescriptive and descriptive norms were revealed to be the most significant predictors of cyber-loafing behaviour amongst those who provide administrative assistance. The results showed that not only does a person's reference group seem to play an influential role in predicting whether they cyberloaf or not, but that attitude also seems to have significant predictive power in both forming intentions to cyberloaf and actually cyber-loafing.

Since both prescriptive and descriptive norms were found to be significant predictors of cyber-loafing, organisations would need to discourage cyber-loafing from both an educational and a practical perspective. Organisations could communicate through policies or training interventions that cyber-loafing would not be tolerated, and employees from all levels of the organisation would need to uphold the norms of the organisation by not engaging in cyber-loafing. The results show that administrative support staff use their perception of cyber-loafing engagement by their superiors and colleagues to inform whether they will engage in cyber-loafing themselves. If the organisational norm is to not engage in cyber-loafing, then the likelihood of engagement should also be minimised. Policies and

training interventions would need to be implemented in order to change organisational norms around cyber-loafing.

Additionally, intention only mediated the relationship between TPB and cyber-loafing behaviour. As with prescriptive and descriptive norms, organisations would need to change attitudes of those who provide administrative assistance by implementing training and policies in order to influence attitudes around cyber-loafing. It has been shown that with the implementation of organisational policies on cyber-loafing, the less favourable an employee's attitude around engaging in cyber-loafing (Andreassen, Torsheim, & Pallesen, 2014). Since these interventions have been effective, but at the expense of employee loyalty and trust (Khansa et al., 2017), it may be worthwhile investigating other interventions (Mercado et al., 2017).

Research Limitations

Research Design. This research was designed and conducted as a cross-sectional study. With a cross-sectional design, a phenomenon such as cyber-loafing is only observed at one point in time, and variances over time are not considered, therefore causality may not be inferred (Askew et al., 2014). Even though partial support was found for TPB as a possible explanation for cyber-loafing in the sample understudy, a longitudinal study would collect measurements of cyber-loafing form the sample over longer periods of time, as cyber-loafing may be influenced by variable factors no considered.

Although appropriate for the purpose and constraints of the current study, the sampling techniques were non-random, therefore limiting the generalisability of the sample to the wider South African population of administrative support staff. Future research could incorporate random sampling techniques to better capture the representativeness of the wider administrative support staff population in South Africa (Rosnow & Rosenthal, 2013).

Self-Report Measure Bias. All variables in this study were measured using self-report questionnaires. One of the main critiques of a self-report questionnaire is its susceptibility to social desirability (Conway & Lance, 2010) especially when measuring a CWB, such as cyber-loafing. Respondents may craft their answers to portray a favourable view of themselves. In other words, respondents may have underreported the amount of cyber-loafing they engage in due to social desirability bias (Conway & Lance, 2010). Studies could employ alternative measures, such as an experimental study, to observe cyber-loafing whilst controlling for external factors such as social desirability.

Directions for Future Research

The results of this study show that there is a predictive relationship between social norms, attitudes, intention and cyber-loafing, but not PBC. From these results, an opportunity is presented for future studies to test a non-traditional version of the TPB model with ability to hide cyber-loafing in place of PBC in a South African context. This would not only test the universality and validity of the non-traditional model of TPB in a South African context but contribute towards the search for a robust understanding of what causes cyber-loafing. From this understanding, how best to both discourage and manage cyber-loafing could be better examined. In their research, Askew et al. (2014) found ability to hide cyber-loafing to be a significant predictor of cyber-loafing behaviour. They suggest that reducing employees' ability to hide their activities and increasing transparency by orienting computers away from facing walls and creating open-plan offices should decrease the incidence of cyber-loafing. Subsequently, employees would be less likely to perceive their superiors and colleagues to be cyber-loafing, influencing an employee's descriptive norms which were found to be a significant contributor in forming intentions to cyberloaf (Askew et al., 2014).

Cyber-loafing research consists mainly of cross-sectional designs. Future studies could consider employing a longitudinal design to establish causality, rather than the suggestive nature of findings from cross-sectional study designs (Lim & Chen, 2012).

There is no universally accepted definition of cyber-loafing. This is reflected in the multiple definitions and measures available in the literature (Mercado et al., 2017). Most cyber-loafing research has either adapted an existing scale or created one. This may be due to slightly different conceptualisations of cyber-loafing. Thus, there is an opportunity to establish a universal scale to measure cyber-loafing. This would require a widely-accepted understanding of cyber-loafing's composition and its antecedents (Mercado et al., 2017).

Conclusion

The results of this study were discussed in conjunction with relevant literature in order to contextualise this study's findings. The purpose of this study was to investigate the appropriateness of using TPB in explaining cyber-loafing amongst those who provided administrative support in South African organisations. Prior literature had indicated that TPB is a suitable model to explain CWBs and, more specifically, other withdrawal behaviours (Askew, 2012; Askew et al., 2014). However, the results of this study show that none of the TPB predictor variables, except for attitude, were successfully mediated by intention in the selected sample. As demonstrated by previous research, an amended version of the TPB model would be better suited in explaining cyber-loafing behaviour (Askew et al., 2014). This study contributes to the ongoing research around understanding cyber-loafing, its nomological network and its prevalence amongst administrative support staff in the South African context. From the results, practical implications were discussed, and this study's research limitations were outlined. Even though the traditional TPB model did not explain cyber-loafing behaviour amongst administrative support staff, this does not mean that cyber-loafing is not apparent in the selected sample and will not continue to be a problem for

organisations for the foreseeable future. As such, recommendations for future research were proposed.

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Appendices

Appendix A: Summary of Cyber-loafing Literature Continued

Table 10

Summary of Cyber-loafing Literature

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Lim and Teo (2005)	Singapore	• To explore the perceived seriousness and justification of cyber-loafing amongst working adults.	226 employed adults	Electronic survey	• More serious forms of cyber-loafing tend to be less prevalent. • The internet has blurred the boundary between work and personal life, allowing them to permeate each other.
Blanchard and Henle (2008)	United States of America	• To establish different forms of minor and major cyber-loafing, and the role of norms and external locus of control in cyber-loafing behaviour.	201 employed MBA students	Electronic survey	• Perception of co-workers' and supervisors' norms was found to be positively correlated to minor, not major, forms of cyber-loafing. • Belief in chance, not in powerful others, was found to explain minor and major cyber-loafing.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Henle and Blanchard (2008)	United States of America	• To investigate cyber-loafing engagement due to role conflict and ambiguity, moderated by perceived organisational sanctions.	194 employed MBA students	Survey	• When employees experience role ambiguity and conflict, they are likely to engage in cyber-loafing. • Role overload does not result in employees engaging in cyber-loafing. • Employees are less likely to engage in cyber-loafing if organisational sanctions would be applied.
Ugrin, Pearson, and Odom (2008)	United States of America	• To investigate how deterrence mechanisms affect employee decisions to engage in cyber-loafing and how this relationship is moderated by self-control and previous cyber-loafing habits.	161 participants comprised of employees and undergraduate and graduate university students	Survey	• Self-control is negatively related to cyber-loafing. • Cyber-loafing detection mechanisms and awareness of implementation deter cyber-loafing intentions.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Henle, Kohut, and Booth (2009)	United States of America	• To investigate which electronic use policies enhance perceptions of fairness and reduce cyber-loafing amongst employees.	Study 1: 129 undergraduate business students. Study 2: 284 undergraduate business students. Study 3: 113 employed MBA students	2 experiments, 1 field study	• Zero-tolerance policies which indicate that as the frequency of violations increase, so too will the penalties; that appeal to both employees and management; and indicate continuous monitoring, will be more likely perceived as fair, and employees would be less likely to engage in cyber-loafing.
Zoghbi-Manrique-de-Lara (2009)	Spain	• To investigate the role of normative conflict in the relationship between procedural justice as an antecedent of cyber-loafing.	146 non-teaching staff from a state university.	Electronic survey	• Normative conflict mediates the relationship between procedural justice and cyber-loafing.
Zoghbi-Manrique-de-Lara and Olivares-Mesa (2010)	Spain	• To empirically test if cyber-loafing control measures which result in punitive judgement could deter cyber-loafers.	147 administration and service personnel	Electronic survey	• Control measures in conjunction with punishment were found to be effective in deterring cyber-loafing.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Liberman et al. (2011)	United States of America	• To investigate whether employee job attitudes, organisational characteristics, attitudes towards cyber-loafing and other non-internet-related loafing behaviours are antecedents of cyber-loafing.	143 employees from different industries	Survey	• Cyber-loafing was negatively related to job attitudes and intrinsic involvement. • Supervisor support for internet usage and perceived cyber-loafing of co-workers were positively related to cyber-loafing. • Attitudes towards cyber-loafing and employee participation in non-internet-related loafing showed a positive relationship with cyber-loafing.
Lim and Teo (2011)	Singapore	• To investigate the incidence and antecedents of cyber-loafing in the Singapore workplace.	188 working adults	Electronic survey and focus group (with 20 respondents)	• Employees engage in cyber-loafing at work by checking personal emails and browsing websites, and cyber-loafing was as prevalent in Singapore as the USA. • Employees engaged in cyber-loafing at work more than at home.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Rajah and Lim (2011)	Singapore	• To investigate the relationship between neutralisation techniques, Organisational Citizenship Behaviour (OCB) and cyber-loafing.	114 students at a tertiary institution	Survey	• Employees justify their cyber-loafing through either neutralisation or OCB.
Restubog et al. (2011)	Philippines	• To investigate the moderating effect of self-control in the relationship between perceived organisational justice and cyber-loafing.	238 employees (76.77%) and 252 co-workers (81.29%)	Surveys	• Self-control moderated the relationship between perceived organisational justice and cyber-loafing • For employees with high levels of self-control, there was a strong negative correlation. • Without controlling for gender, age and number of hours used for internet work, organisational justice predicted cyber-loafing behaviour.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Vitak et al. (2011)	United States of America	• To clarify antecedents of cyber-loafing.	2134 adults	Reanalysis of survey data from the Pew Internet and American Life Project	• Cyber-loafing variation and frequency are predicted by habitual use and increased perception of internet usefulness, as well as being young, male and of a racial minority.
Askew (2012)	United States of America	• To validate findings that the Theory of Planned Behaviour could be used to explain cyber-loafing • To investigate whether cyber-loafing has an effect on task performance and job satisfaction.	447 subordinates and 147 supervisors	Survey	• The Theory of Planned Behaviour significantly predicted cyber-loafing behaviour. • Cyber-loafing in small durations does not have a significant effect on task performance, only if engaged in for long and frequent periods of time. • Cyber-loafing on a cell phone, not on a desktop, is related to job satisfaction.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Lim and Chen (2012)	Singapore	• To measure the impact of cyber-loafing on employee work and emotion, as well as gender differences in the perception of cyber-loafing.	191 alumni from an Asian university (38%)	Non-electronic survey	• Respondents reported that certain forms of cyber-loafing at work were acceptable. • Compared to women, men felt that cyber-loafing had a positive on their work. • Emailing activities were found to have a negative effect on emotions, whereas browsing activities had a positive effect.
RuningSawitri (2012)	Surakarta	• To examine the effect of 1) work stressors on cyber-loafing; 2) internet experience and cyber-loafing; and 3) if employee internet experience moderated the relationship between work stressors and cyber-loafing.	199 Surakarta Local Government employees	Survey	• Role ambiguity and conflict had a positive relationship with cyber-loafing. • Internet experience only moderated the relationship between role overload and cyber-loafing.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Wagner, Barnes, Lim, and Ferris (2012)	Singapore and United States of America	• To examine whether cyber-loafing behaviour is influenced by lost and poor-quality sleep, and if conscientiousness moderates this relationship.	Study 1: 3492 measurement points Study 2: 96 undergraduate university students	Study 1: Quasi-experiment Study 2: Experiment	• Study 1: Daylight Savings Time (DST) leads to increased levels of cyber-loafing • Study 2: Approximately half of the cyber-loafing behaviour could be predicted by the quality and amount of sleep, except for those who are highly conscientious – who are less likely to cyber-loaf.
Jia et al. (2013)	United States of America	• To explore the effect of personality, implementation of an internet usage policy and perceived meaningfulness of work on cyber-loafing.	147 working adults	Online survey	• Emotional stability, conscientiousness and the use of an internet usage policy were inversely related to cyber-loafing, unlike extraversion which was positively related.
Moody and Siponen (2013)	Finland	• To investigate the use of the internet at work for personal reasons using the Theory of Interpersonal Behaviour (TIB).	238 employees from a Finnish private electrical and related services company (21%)	Online survey	• Attitude, effect and social factors predicted intention, which in turn predicted using the internet at work for personal activities.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Ugrin and Pearson (2013)	United States of America	• To investigate the effects of the Deterrence Model on different forms of cyber-loafing.	150 participants: • 69 business students from two different universities. 42 of the students were employed. • 81 employees from a bank, educational institution, and manufacturing company.	Experiment	• The threat of employment termination deterred all forms of cyber-loafing except for viewing adult-oriented sites. • Minor forms of cyber-loafing, that are perceived as acceptable, are mitigated when detection systems and threat of employment termination are used and routinely enforced.
Al-Shuaibi, Subramaniam, and Mohd-Shamsudin (2014)	Jordan	• To investigate the influence of HR practices on cyber-loafing, with job satisfaction mediating this relationship.	273 employees who provide administrative assistance from four different universities.	Survey	• Different HR practices have varying relationships with cyber-loafing. Particularly, performance review systems and career progression were seen to have a positive relationship with cyber-loafing behaviour. • Job satisfaction is negatively related to cyber-loafing. • Job satisfaction acts as a mediator between HR practices and cyber-loafing.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Andreassen et al. (2014)	Norway	• To investigate the relationship between demographics, job-specific factors and personality on attitudes towards and use of social networking sites (SNS) during working hours.	11018 respondents	Online survey	• Age has a negative relationship with attitude towards and use of SNS. • Men, single relationship status and education had a positive relationship with attitude towards and use of SNS. • Access to SNS at work has a positive relationship with attitude towards and use of SNS. • Cyber-loafing policies have a negative relationship with attitude towards and SNS use. • Extraversion and neuroticism have a positive relationship with attitude towards and use of SNS, unlike conscientiousness, positively challenging work and job demands which have a negative relationship.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Askew et al. (2014)	United States of America	• To assess the validity of the TPB model in explaining cyber-loafing.	Study 1: 429 student and non-student employees Study 2: 202 employees	Survey	• Descriptive norms, attitudes towards cyber-loafing, and the ability to hide cyber-loafing were the most significant predictors of behavioural intention and cyber-loafing.
Cheng, Li, Zhai, and Smyth (2014)	China	• To examine the relationship between neutralisation techniques, perceived sanction severity, perceived detection, and perceived benefits of cyber-loafing on intention to cyber-loaf.	230 employees	Paper and online surveys	• Neutralisation techniques and perceived benefits are positively related to cyber-loafing. • Perceived detection has a negative relationship with cyber-loafing. • Perceived severity of sanctions has no relationship with cyber-loafing.
König and Caner de la Guardia (2014)	Switzerland	• To investigate the work/family border theory in explaining personal internet use at work.	190 employees	Paper and online surveys	• Only the amount of personal demands and identification with work significantly predicted personal internet use at work.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
O'Neill, Hambley, and Bercovich (2014)	Canada	• To examine the relationship between personality, perceived performance, satisfaction and cyber-loafing whilst working away from work.	Time 1: 174 employees Time 2: 94 employees	Field study	• Cyber-loafing is positively related to procrastination, and has a negative relationship with honesty, agreeableness, conscientiousness, satisfaction and perceived performance (whilst working remotely).
O'Neill, Hambley, and Chatellier (2014)	United States of America	• To explore the relationship between cyber-loafing, remote work effectiveness and personality.	148 remote working employees	Online survey	• Procrastination and honesty significantly predicted remote work effectiveness, cyber-loafing and engagement.
Aghaz and Sheikh (2015)	Iran	• To explore the relationship between job burnout and cyber-loafing in the knowledge-intensive sector.	298 employees from five top private sector knowledge-intensive firms (85%)	Survey	• Cyber-loafing activities and behaviours have a significant impact on job burnout • Cyber-loafing behaviours, rather than cyber-loafing activities, were found to be a stronger predictor of job burnout.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Baturay and Toker (2015)	Turkey	• To investigate the influence of demographics on cyber-loafing in an educational context.	282 high school students	Questionnaire	• Gender has the most significant impact on cyber-loafing, with male students cyber-loafing more than female students. • Older students cyber-loaf more than younger students. • Internet experience is positively related with cyber-loafing.
Çınar and Karcıoğlu (2015)	Turkey	• To investigate the relationship between organisational citizenship behaviour (OCB) and cyber-loafing.	360 public service workers	Questionnaire	• There is no relationship between OCB and cyber-loafing.
Quoquab, Halimah, and Salam (2015)	Malaysia	• To explore the effect of cyber-loafing on employee productivity.	282 employees	Questionnaire	• Workplace Internet Leisure (WIL) is positively related to productivity. • There was no relationship found between autonomy and internet leisure policy on productivity.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Sheikh et al. (2015)	Iran	• To validate Askew (2012) and Askew et al.'s (2014) modified version of TPB in explaining cyber-loafing in an Iranian context.	195 employees from a copper mine	Survey	• Social norms, attitudes towards cyber-loafing and an ability to hide cyber-loafing predicted behavioural intention.
Derin and Gökçe (2016)	Turkey	• To investigate if cyber-loafing has a positive relationship with innovation.	152 employees	Questionnaire	• Cyber-loafing has a weak, positive relationship on innovation.
Kim, del Carmen Triana, Chung, and Oh (2016)	Korea	• To explore if perceptions of organisational justice and psychological empowerment moderate the negative relationship between conscientiousness, emotional stability and cyber-loafing.	247 employees	Online Survey	• Employees who are highly conscientious cyber-loaf less when there is a perception of greater organisational justice. • Those who are highly conscientious and have low levels of psychological empowerment engage in less cyber-loafing.
Akbulut, Dönmez, and Dursun (2017)	Turkey	• To investigate the relationship between cyber-loafing and social desirability bias.	1339 students and 996 employees	Online survey	• Cyber-loafing and social desirability are positively related.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Askew and Buckner (2017)	United States of America	• To investigate if work desk characteristics and electronic monitoring had an influence on cyber-loafing, with ability to hide cyber-loafing as the mediator.	202 working adults	Paper and pen survey	• It was found that visibility of an employee's computer screen has an influential relationship on cyber-loafing through the ability to hide cyber-loafing.
Huma, Hussain, Thurasamy, and Malik (2017)		• To identify the different factors that affect cyber-loafing in a public and private sector.	170 employees from the public and private sector	Survey	• Factors affecting cyber-loafing differ between the private and public sector.
Khansa et al. (2017)	United States of America	• To investigate the effect of monitoring interventions on perceptions of fairness and employee emotions, and how this would affect employee loyalty.		Field survey	• Monitoring interventions successfully reduce cyber-loafing but have a negative impact on employee loyalty.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Koay, Soh, and Chew (2017)	Malaysia	• To investigate the relationship between personal demands, job stress and cyber-loafing.	310 participants from the ICT sector	Survey	• Personal demands and job stress are positively related to cyber-loafing. • Job stress is positively related to personal demands • Job stress partially mediates the relationship between personal demands and cyber-loafing.
Mercado et al. (2017)		• To summarise the current literature on cyber-loafing to understand the factors and guide future research.	54 independent samples	Meta-analysis	• Attitudes, chances to cyber-loaf, work engagement, self-control and being bored at work are strong predictors of cyber-loafing. • Self-control is also shown to have a stronger negative relationship with cyber-loafing than emotional stability, agreeableness and conscientiousness. • Demographics and employment characteristics (e.g. salary/ wage) were found to have little to no influence on cyber-loafing.

Author and Year	Country	Purpose	Sample size, sample and response rate in parentheses (%)	Method	Key Findings
Oosthuizen et al. (2018)	South Africa	• To investigate the relationship between organisational justice, work engagement, organisational trust and cyber-loafing.	224 employees from the retail and manufacturing industry	Questionnaire	• In employees who perceive their organisations to be fair, organisational trust and work engagement increases, reducing cyber-loafing.
Pindek, Krajcevska, and Spector (2018)	United States of America	• To investigate the relationship between cyber-loafing and employee boredom.	463 university employees	Questionnaire	• The relationship between boredom and cyber-loafing is positively related, and stronger than CWB and boredom.
Ugrin et al. (2018)	Singapore and United States of America	• To examine the relationship between culture and cyber-loafing.	249 MBA students	Survey	• Individuals from more feminine cultures are more likely to engage in cyber-loafing.

Appendix B: Consent Form and Survey

What is the purpose of this study?

The aim of this research is to investigate cyber-loafing activities in South African organisations.

What are the risks/benefits?

There are no known risks or benefits associated with this research.

General Information:

This research has been approved by the University of Cape Town's (UCT) Commerce Faculty Ethics in Research Committee. The questionnaire will take approximately 15-20 minutes to complete. Should you have any questions regarding the research please feel free to contact the research supervisor: Dr Chao Nkhungulu Mulenga on chao.mulenga@uct.ac.za or 021 650 4243, or the researcher: Jenna Werner on wrnjen002@myuct.ac.za or 083 785 1995.

I agree to participate in this research project voluntarily. Results will be aggregated from participant responses; therefore, confidentiality is guaranteed. I understand I have the right to withdraw from this survey at any stage. I understand that this research might be published in a research journal or book and that the dissertation will available via library resources after completion.

Please tick the appropriate box:

Yes, I do consent ☐

No, I do not consent ☐

CYBER-LOAFING QUESTIONNAIRE

Job and Demographic Details

1. **This study is focused on investigating the cyber-loafing activities amongst employees who provide administrative support to other employees or clients within South African organisations. Does your job involve offering administrative support to other employees or clients?**

Yes	No

If you have responded 'YES' to the above question, please continue as your response would be greatly appreciated.

2. **On what basis are you employed?**

Full-Time
Part-Time
Prefer Not to Answer

3. **What ethnicity do you identify with?**

Asian
African
Coloured
Indian
White/Caucasian
Prefer Not to Answer

4. **What gender do you identify with?**

Female
Male
Other
Prefer Not to Answer

5. **What is your age? (Leave blank if you prefer not to answer)**

Scale Items

Cyber-loafing Scale

This scale aims to measure, on average, how much you use the internet for non-work-related matters during working hours. These activities could be done on any device that can access the internet, whether it be your personal computer, cell phone, tablet, or any other device. Using the 6-point scale outlined below, please indicate the applicable number next to each statement. Please answer each statement as accurately as possible.

For example:

Visit non-job-related websites __5_____

1 = Never
2 = A Few Times a Month
3 = A Few Times per Week
4 = Once a Day
5 = A Few Times a Day
6 = Constantly

Thinking about your past and current behaviour at work and using the rating scale, how many times do you engage in the following activities during working hours…

1. Visit non-job-related websites _____
2. Visit general news websites _____
3. Visit entertainment websites _____
4. Visit sport-related websites _____
5. Instant messaging/chat online _____
6. Download non-work-related information _____
7. Look for employment _____
8. Shop online _____
9. Play online games _____
10. Visit adult-oriented (explicit) websites _____
11. Visit online discussion boards or forums _____
12. Visit video-sharing websites (e.g. YouTube) _____
13. Visit social networking websites (e.g. Facebook) _____
14. Visit investment/ banking websites _____
15. Check non-work-related emails _____
16. Send non-work-related emails _____
17. Receive non-work-related emails _____
18. Play games on social networking websites (e.g. Facebook games) _____
19. Visit social news websites _____

Intention to Engage in Cyber-loafing

This scale measures your intention to engage in using the internet for non-work-related matters during working hours. These activities could be done on any device that can access the internet, whether it be your personal computer, cell phone, tablet, or any other device.

*Place an "**X**" in the space, or over the word, that most accurately represents your attitude towards the question.*

For example:

I intend to shop online while at work at least once in the forthcoming month.

Extremely Unlikely/___/____/___/___/___/_**X**_/___/Extremely Likely

During working hours…

1. I intend to shop online while at work at least once in the forthcoming month.
   Extremely Unlikely/___/____/___/___/___/___/___/Extremely Likely

2. I will use my phone for personal reasons while at work at least once in the forthcoming month.
   Extremely Unlikely/___/____/___/___/___/___/___/Extremely Likely

3. I will send at least a few text messages while at work in the forthcoming month.
   Extremely Unlikely/___/____/___/___/___/___/___/Extremely Likely

4. I intend to send a non-work-related email at work at least once in the forthcoming month.
   Extremely Unlikely/___/____/___/___/___/___/___/Extremely Likely

5. I plan to browse non-work-related websites at work at least a few times in the forthcoming month.
   Extremely Unlikely/___/____/___/___/___/___/___/Extremely Likely

6. I plan to use a social networking site (e.g. Facebook) while at work at least once in the forthcoming month.
   Extremely Unlikely/___/____/___/___/___/___/___/Extremely Likely

Subjective Social Norms (Askew, 2012; Askew et al., 2014)
Using the 6-point scale outlined below, please select the applicable number for each statement. Please answer each statement as accurately as possible. The following activities could be done on any device that accesses the internet, whether it be a personal computer, cell phone, tablet, or any other device.

For example:
Visit non-job-related websites _5_____

Descriptive Norms:
1 = Never
2 = A Few Times a Month
3 = A Few Times per Week
4 = Once a Day
5 = A Few Times a Day
6 = Constantly

1. **How often do your CO-WORKERS do each of the following things during work hours? *Using the scale above, indicate next to each statement the appropriate duration.***
    - Visit non-job-related websites? _____
    - Check non-work-related email? _____
    - Visit social networking sites (Facebook, etc.)? _____

2. **How often do your SUPERVISORS do each of the following things during work hours?**
    - Visit non-job-related websites? _____
    - Check non-work-related email? _____
    - Visit social networking sites (Facebook, etc.)? _____

Prescriptive Norms:
1 = Strongly Disapprove
2 = Disapprove
3 = Neither approve nor disapprove
4 = Approve
5 = Strongly Approve

Using the scale above, indicate the appropriate duration next to each statement.

1. **My co-workers would approve of me during working hours. . .**
    - Visiting non-job-related websites? _____
    - Sending/receiving non-work-related emails? _____
    - Visiting social networking sites (e.g. Facebook)? _____
2. **My supervisors would approve of me during working hours. . .**

- Visiting non-job-related websites? _____
- Sending/receiving non-work-related emails? _____
- Visiting social networking sites (e.g. Facebook)? _____

Perceived Behavioural Control
This scale ascertains how much access you have to internet sites at work.

1 = Disagree Very Much
2 = Disagree Moderately
3 = Disagree Slightly
4 = Agree Slightly
5 = Agree Moderately
6 = Agree Very Much

Using the scale above, indicate next to each statement the appropriate duration to which…

1. My favourite websites are blocked at work _____
2. My company blocks access to certain websites _____
3. I can get to any website I want to at work _____

Attitude Towards Cyber-loafing
This scale measures your attitude towards using the internet at work for non-work-related matters. This measure incorporates all devices you use to access the internet, whether it be your personal computer, cell phone, tablet, or any other device.
*Place an "**X**" in the space, or over the word, that most accurately represents your attitude towards the question.*

For example:
For me, using the internet at work for personal reasons is. . .

- Worthless/___/_X_/___/___/___/___/___/Valuable

For me, using the internet at work for personal reasons is. . .

- Worthless/___/___/___/___/___/___/___/Valuable
- Unenjoyable/___/___/___/___/___/___/___/Enjoyable
- Harmful/___/___/___/___/___/___/___/Beneficial
- Bad/___/___/___/___/___/___/___/Good

THANK YOU FOR YOUR PARTICIPATION; IT IS GREATLY APPRECIATED! ☺

Appendix C: Permission from the University of Cape Town (UCT)

HR194	ACCESS TO UCT STAFF FOR RESEARCH PURPOSES	UNIVERSITY OF CAPE TOWN IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

NOTES

- Forms must be downloaded from the UCT website: http://forms.uct.ac.za/forms.htm
- This form must be completed by applicants who are requesting to access UCT staff for the purpose of research.
- A copy of the research proposal as well as the Ethics Committee approval must be attached.
- It is the **responsibility of the researcher/s to apply for ethical clearance** from the relevant Faculty's Research in Ethics Committee (REC).
- If you are requesting staff information, you are required to complete the HR Information Request Form (HR190) and submit it together with all the required documentation.
- The turnaround time for a reply is **approximately 10 working days unless specified as urgent.**
- Return the completed application form and all the above documentation to Joy Henry via email: joy.henry@uct.ac.za; or deliver to:
  For the Attention: Executive Director, Human Resources Department, Bremner Building, Room 214, Lower Campus, UCT.

SECTION A: APPLICANT DETAILS

Title	Miss	Name	Jenna
Telephone number	0837851995	Email address	wrnjen002@myuct.ac.za
Student number	WRNJEN002	Staff number	
Visiting researcher ID / passport number			
[illegible]			
[illegible]	University of Cape Town		
[illegible]	Commerce, School of Management Studies		
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27 JUN 2018
ED: HR OFFICE

SECTION B: SUPERVISOR DETAILS

	Title and name	Telephone number	Email address
Supervisor	Dr. Chao Nkhungulu Mulenga	021 650 4243	chao.mulenga@uct.ac.za
Co-Supervisor			

SECTION C: APPLICANT'S FIELD OF STUDY (if applicable) / TITLE OF RESEARCH PROJECT / STUDY

Degree	Master of Commerce: Organisational Psychology	
Research project or title	Investigating Cyberloafing in South Africa: The Role of Theory of Planned Behaviour	
Research proposal attached	☒ Yes	☐ No
Target population (number of UCT staff)	As many as possible	
[illegible]	15 - 20 minutes	
Lead Researcher details	Jenna Werner Email: wrnjen002@myuct.ac.za or wernjenn@hotmail.com Cell: 0837851995	
Proof of ethical clearance status attached	☒ Yes	☐ No

SECTION D: FOR OFFICE USE (Approval status to be completed by the Executive Director, Human Resources or Nominee)

Support or approval			Role	Signature	Date
Supported	☑ Yes	☐ No	Joy Henry (Office Co-ordinator)		27/06/18
Approved	☑ Yes	☐ No	[illegible] (Executive Director: HR)		28/06/18

15 November 2011 | Page 1 of 1 | HR194

Appendix D: Reliability Analysis Tables

Table 11
Reliability Analysis for the Cyber-loafing Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. Visit non-job-related websites	.41	.84
2. Visit general news websites	.42	.84
3. Visit entertainment websites	.55	.83
4. Visit sport-related websites	.62	.83
5. Instant messaging/chat online	.36	.85
6. Download non-work-related information	.45	.84
7. Look for employment	.47	.83
8. Shop online	.20	.84
9. Play online games	.02	.85
10. Visit adult-oriented (explicit) websites	.26	.84
11. Visit online discussion boards or forums	.49	.84
12. Visit video-sharing websites (e.g. YouTube)	.50	.83
13. Visit social networking websites (e.g. Facebook)	.41	.84
14. Visit investment/banking websites	.36	.84
15. Check non-work-related emails	.53	.83
16. Send non-work-related emails	.68	.82
17. Receive non-work-related emails	.67	.82
18. Play games on social networking websites (e.g. Facebook games)	-.02	.85
19. Visit social news websites	.63	.83

Table 12
Reliability Analysis for the Cyber-loafing Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. Visit non-job-related websites	.42	.84
2. Visit general news websites	.43	.84
3. Visit entertainment websites	.55	.84
4. Visit sport-related websites	.62	.83
5. Instant messaging/chat online	.36	.85
6. Download non-work-related information	.45	.84
7. Look for employment	.48	.84
8. Shop online	.20	.85
9. Play online games	-.003	.85
10. Visit adult-oriented (explicit) websites	.27	.85
11. Visit online discussion boards or forums	.49	.84
12. Visit video-sharing websites (e.g. YouTube)	.50	.84
13. Visit social networking websites (e.g. Facebook)	.41	.84
14. Visit investment/banking websites	.35	.84
15. Check non-work-related emails	.53	.84
16. Send non-work-related emails	.68	.83
17. Receive non-work-related emails	.67	.83
18. Play games on social networking websites (e.g. Facebook games)	-	-
19. Visit social news websites	.63	.83

Table 13
Reliability Analysis for the Cyber-loafing Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. Visit non-job-related websites	.42	.84
2. Visit general news websites	.43	.84
3. Visit entertainment websites	.55	.84
4. Visit sport-related websites	.62	.83
5. Instant messaging/chat online	.36	.85
6. Download non-work-related information	.45	.84
7. Look for employment	.48	.84
8. Shop online	.30	.85
9. Play online games	-	-
10. Visit adult-oriented (explicit) websites	.27	.85
11. Visit online discussion boards or forums	.49	.84
12. Visit video-sharing websites (e.g. YouTube)	.50	.84
13. Visit social networking websites (e.g. Facebook)	.41	.84
14. Visit investment/banking websites	.35	.84
15. Check non-work-related emails	.53	.84
16. Send non-work-related emails	.68	.83
17. Receive non-work-related emails	.67	.83
18. Play games on social networking websites (e.g. Facebook games)	-	-
19. Visit social news websites	.63	.83

Table 14
Reliability Analysis for the Cyber-loafing Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. Visit non-job-related websites	.41	.85
2. Visit general news websites	.44	.85
3. Visit entertainment websites	.55	.84
4. Visit sport-related websites	.63	.83
5. Instant messaging/chat online	.38	.85
6. Download non-work-related information	.45	.84
7. Look for employment	.48	.84
8. Shop online	-	-
9. Play online games	-	-
10. Visit adult-oriented (explicit) websites	.27	.85
11. Visit online discussion boards or forums	.49	.84
12. Visit video-sharing websites (e.g. YouTube)	.50	.84
13. Visit social networking websites (e.g. Facebook)	.41	.84
14. Visit investment/banking websites	.35	.84
15. Check non-work-related emails	.53	.84
16. Send non-work-related emails	.68	.83
17. Receive non-work-related emails	.66	.83
18. Play games on social networking websites (e.g. Facebook games)	-	-
19. Visit social news websites	.63	.83

Table 15
Reliability Analysis for the Cyber-loafing Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. Visit non-job-related websites	.41	.85
2. Visit general news websites	.44	.85
3. Visit entertainment websites	.55	.84
4. Visit sport-related websites	.63	.84
5. Instant messaging/chat online	.38	.86
6. Download non-work-related information	.45	.85
7. Look for employment	.48	.85
8. Shop online	-	-
9. Play online games	-	-
10. Visit adult-oriented (explicit) websites	-	-
11. Visit online discussion boards or forums	.47	.85
12. Visit video-sharing websites (e.g. YouTube)	.50	.84
13. Visit social networking websites (e.g. Facebook)	.41	.85
14. Visit investment/banking websites	.35	.85
15. Check non-work-related emails	.54	.84
16. Send non-work-related emails	.68	.83
17. Receive non-work-related emails	.67	.84
18. Play games on social networking websites (e.g. Facebook games)	-	-
19. Visit social news websites	.63	.84

Table 16
Reliability Analysis for the Cyber-loafing Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. Visit non-job-related websites	.41	.85
2. Visit general news websites	.46	.85
3. Visit entertainment websites	.55	.85
4. Visit sport-related websites	.61	.84
5. Instant messaging/chat online	-	-
6. Download non-work-related information	.46	.85
7. Look for employment	.46	.85
8. Shop online	-	-
9. Play online games	-	-
10. Visit adult-oriented (explicit) websites	-	-
11. Visit online discussion boards or forums	.46	.85
12. Visit video-sharing websites (e.g. YouTube)	.48	.85
13. Visit social networking websites (e.g. Facebook)	.37	.86
14. Visit investment/banking websites	.38	.85
15. Check non-work-related emails	.55	.85
16. Send non-work-related emails	.70	.84
17. Receive non-work-related emails	.68	.84
18. Play games on social networking websites (e.g. Facebook games)	-	-
19. Visit social news websites	.63	.84

Table 17
Reliability Analysis for Combined Subjective Social Norms Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Descriptive Norms		
1. How often do your co-workers do each of the following things during working hours?		
Visit non-job-related websites?	.73	.84
Check non-work-related email?	.66	.85
Visit social networking sites (Facebook etc.)?	.67	.85
2. How often do your supervisors do each of the following things during working hours?		
Visit non-job-related websites?	.68	.85
Check non-work-related email?	.66	.85
Visit social networking sites (Facebook etc.)?	.52	.86
Prescriptive Norms		
1. My co-workers would approve of me during working hours…		
Visit non-job-related websites?	.53	.86
Check non-work-related email?	.46	.86
Visit social networking sites (Facebook etc.)?	.45	.86
2. My supervisors would approve of me during working hours…		
Visit non-job-related websites?	.45	.86
Check non-work-related email?	.41	.86
Visit social networking sites (Facebook etc.)?	.40	.86

Table 18
Reliability Analysis for Combined Subjective Social Norms

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Descriptive Norms		
1. How often do your co-workers do each of the following things during working hours?		
Visit non-job-related websites?	.76	.83
Check non-work-related email?	.68	.84
Visit social networking sites (Facebook etc.)?	.64	.84
2. How often do your supervisors do each of the following things during working hours?		
Visit non-job-related websites?	.63	.85
Check non-work-related email?	.64	.84
Visit social networking sites (Facebook etc.)?	-	-
Prescriptive Norms		
1. My co-workers would approve of me during working hours…		
Visit non-job-related websites?	.58	.85
Check non-work-related email?	.53	.85
Visit social networking sites (Facebook etc.)?	.46	.86
2. My supervisors would approve hours of me during working hours…		
Visit non-job-related websites?	.47	.86
Check non-work-related email?	.44	.86
Visit social networking sites (Facebook etc.)?	.36	.86

Table 19
Reliability Analysis for Separate Descriptive and Prescriptive Norms Scales

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Descriptive Norms		
1. How often do your co-workers do each of the following things during working hours?		
Visit non-job-related websites?	.76	.86
Check non-work-related email?	.73	.87
Visit social networking sites (Facebook etc.)?	.67	.88
2. How often do your supervisors do each of the following things during working hours?		
Visit non-job-related websites?	.77	.86
Check non-work-related email?	.77	.86
Visit social networking sites (Facebook etc.)?	.54	.90
Prescriptive Norms		
1. My co-workers would approve of me during working hours…		
Visit non-job-related websites?	.65	.83
Check non-work-related email?	.64	.83
Visit social networking sites (Facebook etc.)?	.61	.83
2. My supervisors would approve of me during working hours…		
Visit non-job-related websites?	.68	.82
Check non-work-related email?	.69	.82
Visit social networking sites (Facebook etc.)?	.59	.84

Table 20
Reliability Analysis for Separate Descriptive and Prescriptive Norms Scales

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Descriptive Norms		
3. How often do your co-workers do each of the following things during working hours?		
Visit non-job-related websites?	.76	.86
Check non-work-related email?	.73	.87
Visit social networking sites (Facebook etc.)?	.64	.90
4. How often do your supervisors do each of the following things during working hours?		
Visit non-job-related websites?	.72	.88
Check non-work-related email?	.76	.87
Visit social networking sites (Facebook etc.)?	-	-
Prescriptive Norms		
3. My co-workers would approve of me during working hours…		
Visit non-job-related websites?	.65	.83
Check non-work-related email?	.64	.83
Visit social networking sites (Facebook etc.)?	.61	.83
4. My supervisors would approve of me during working hours…		
Visit non-job-related websites?	.68	.82
Check non-work-related email?	.69	.82
Visit social networking sites (Facebook etc.)?	.59	.84

Table 21
Reliability Analysis for Attitude Towards Cyber-loafing Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. Worthless/Valuable	.82	.86
2. Unenjoyable/Enjoyable	.74	.89
3. Harmful/Beneficial	.81	.86
4. Bad/Good	.77	.88

Table 22
Reliability Analysis for Perceived Behavioural Control Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. My favourite websites are blocked at work	.64	.66
2. My company blocks access to certain websites	.63	.66
3. I can get to any website I want to at work	.55	.74

Table 23
Reliability Analysis for Intention to Engage in Cyber-loafing Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. I intend to shop online while at work at least once in the forthcoming month.	.51	.94
2. I will use my phone for personal reasons while at work at least once in the forthcoming month.	.88	.87
3. I will send at least a few text messages while at work at least once in the forthcoming month.	.86	.87
4. I intend to send a non-work-related email at work at least once in the forthcoming month.	.81	.88
5. I plan to browse non-work-related websites at work at least a few times in the forthcoming month.	.82	.88
6. I plan to use a social networking site (e.g. Facebook) while at work at least once in the forthcoming month.	-	-

Table 24
Reliability Analysis for Intention to Engage in Cyber-loafing Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. I intend to shop online while at work at least once in the forthcoming month.	.52	.88
2. I will use my phone for personal reasons while at work at least once in the forthcoming month.	.83	.84
3. I will send at least a few text messages while at work at least once in the forthcoming month.	.82	.84
4. I intend to send a non-work-related email at work at least once in the forthcoming month.	.78	.85
5. I plan to browse non-work-related websites at work at least a few times in the forthcoming month.	.84	.84
6. I plan to use a social networking site (e.g. Facebook) while at work at least once in the forthcoming month.	.42	.91

Table 25
Reliability Analysis for Intention to Engage in Cyber-loafing Scale

Scale Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. I intend to shop online while at work at least once in the forthcoming month.	-	-
2. I will use my phone for personal reasons while at work at least once in the forthcoming month.	.83	.84
3. I will send at least a few text messages while at work at least once in the forthcoming month.	.82	.84
4. I intend to send a non-work-related email at work at least once in the forthcoming month.	.78	.85
5. I plan to browse non-work-related websites at work at least a few times in the forthcoming month.	.84	.84
6. I plan to use a social networking site (e.g. Facebook) while at work at least once in the forthcoming month.	-	-

Appendix E: Validity Analysis

Table 26
Component Matrix of the Cyber-loafing Scale

Scale Item	Component 1
Visit non-job-related websites	.49
Visit general news websites	.56
Visit entertainment websites	.64
Visit sport-related websites	.64
Download non-work-related information	.57
Look for employment	.55
Visit online discussion boards or forums	.59
Visit video-sharing websites (e.g. YouTube)	.48
Visit social networking websites (e.g. Facebook)	.59
Visit investment/banking websites	.47
Check non-work-related emails	.44
Send non-work-related emails	.66
Receive non-work-related emails	.76
Visit social news websites	.69

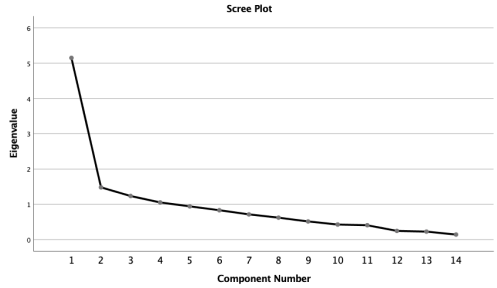

Figure 1. Scree Plot of Cyber-loafing Scale

Table 27
Component Matrix of Intention to Engage in Cyber-loafing Scale

Scale Item	Component 1
I will use my phone for personal reasons while at work at least once in the forthcoming month.	.94
I will send at least a few text messages while at work at least once in the forthcoming month.	.94
I intend to send a non-work-related email at work at least once in the forthcoming month.	.89
I plan to browse non-work-related websites at work at least a few times in the forthcoming month.	.91

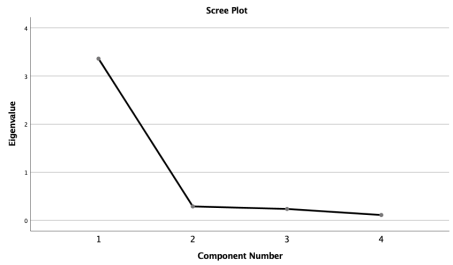

Figure 2. Scree Plot of Intention to Engage in Cyber-loafing

Table 28
Component Matrix of Attitude Towards Cyber-loafing Scale

Scale Item	Component 1
Worthless/Valuable	.89
Unenjoyable/Enjoyable	.82
Harmful/Beneficial	.91
Bad/Good	.88

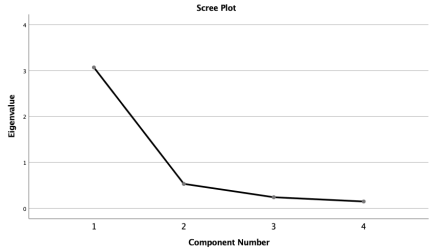

Figure 3. Scree Plot of Attitude Towards Cyber-loafing Scale

Table 29

Component Matrix of Descriptive and Prescriptive Norms Scale

Scale Item	Component 1
Descriptive Norms	
1. How often do your co-workers do each of the following things during working hours?	
Visit non-job-related websites?	.90
Check non-work-related email?	.87
Visit social networking sites (Facebook etc.)?	.76
2. How often do your supervisors do each of the following things during working hours?	
Visit non-job-related websites?	.83
Check non-work-related email?	.86
Prescriptive Norms	
1. My co-workers would approve if I did the following things during working hours…	
Visit non-job-related websites?	.78
Check non-work-related email?	.78
Visit social networking sites (Facebook etc.)?	.61
2. My supervisors would approve if I did the following things during working hours…	
Visit non-job-related websites?	.80
Check non-work-related email?	.81
Visit social networking sites (Facebook etc.)?	.69

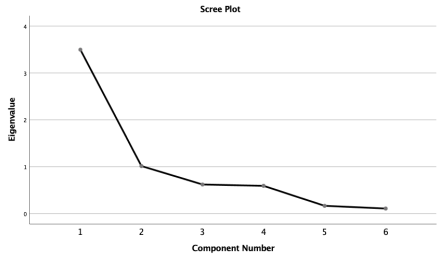

Figure 4. Scree Plot of Prescriptive Norms

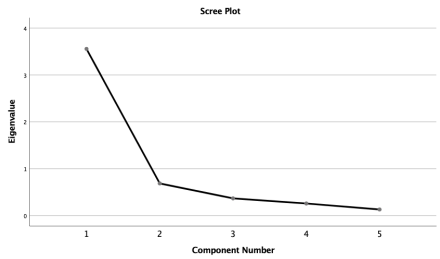

Figure 5. Scree Plot of Descriptive Norms

Table 30

Component Matrix for Perceived Behavioural Control Scale

Scale Item	Component 1
1. My favourite websites are blocked at work	.85
2. My company blocks access to certain websites	.85
3. I can get to any website I want to at work	.79

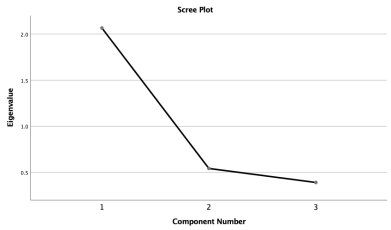

Figure 6. Scree Plot for Perceived Behavioural Control Scale

Appendix F: Evaluation of Assumptions

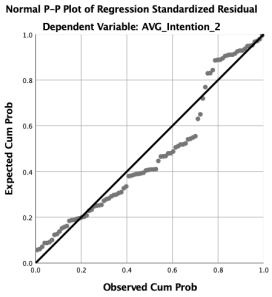

Figure 7. Normal Probability Plot for Hypothesis 1

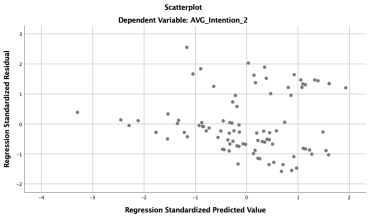

Figure 8. Residual Scatterplot for Hypothesis 1

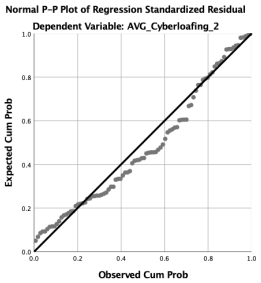

Figure 9. Normal Probability Plot for Hypothesis 2

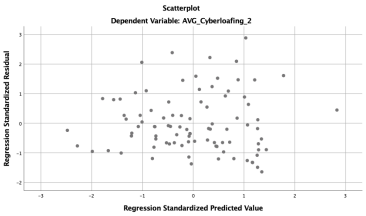

Figure 10. Residual Scatterplot for Hypothesis 2

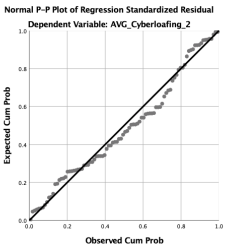

Figure 11. Normal Probability Plot for Hypothesis 3

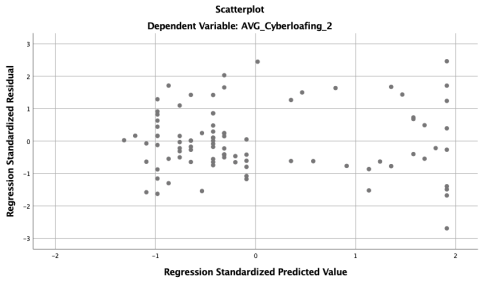

Figure 12. Residual Scatterplot for Hypothesis 3