Is Loafing at Work Necessarily Detrimental? - A Study of the Impacts of Loafing on Productivity and Satisfaction

By

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ABSTRACT

For decades, employees' loafing behaviour has been a concern for employers because by taking time away from work activities it is seen as detrimental to workers' productivity (Bennett & Robinson, 200; Dixon, 2005). Prior to the 1990s, loafing occurred when workers physically allocated time to non-work activities (e.g. chatting with colleagues or running non-work related errands during work hours), but since the development of Internet and Social Networking Sites (SNS) loafing behaviour has moved to include the virtual world ('cyber' space). As a result, loafing has likely become less visible and harder to detect. Paradoxically, though, some types of loafing have recently been found to help employees to recharge their concentration and to improve their satisfaction toward their jobs (Coker, 2013; Lim & Chen, 2012; Messarra, Karkoulian, & McCarthy, 2011).

Although the impact of cyber-loafing and SNS usage at work on employees' productivity or satisfaction has been studied to some extent, little attention has been given to their combined effect with physical loafing. Existing studies have tended to evaluate the impact of loafing on either employees' productivity or satisfaction, and very few examine both outcomes. Building from these empirical findings, this thesis examines the effects of three types of loafing collectively on both job productivity and job satisfaction via three distinct categorisations: 1) time spent loafing, 2) aggregated loafing activities, and 3) combinations of activities at particular times of the work day.

On average, white-collar respondents in this research spent about 4 hours per week loafing at work. This number is comparable but slightly lower than the weekly average of 4.2 hours spent on cyber-loafing in the Asia Pacific region (Zhou & Zhuoqiong, 2005). As expected, the study also found that job satisfaction relates positively to productivity. Similarly, autonomy as part of a job's characteristic has a positive relationship with job satisfaction. Regarding the relationship between loafing behaviour and job productivity, loafing in the morning was found to affect job productivity negatively, especially if it is cyber-loafing activities (except for checking SNS). However, if the same activities are being conducted in the afternoon, it affects productivity positively. As regards to the relationship between loafing behaviour and job satisfaction, when loafing behaviour, both cyber and physical loafing, occurs in the

morning, this exhibits a positive relationship with job satisfaction. Conversely, these are negatively related to job satisfaction when they are happening in the afternoon.

The findings of this study contribute to the organisational behaviour literature by considering the effects of the three types of loafing activities collectively on job satisfaction and job productivity. Furthermore, in drawing on international studies for measures of job productivity, job satisfaction, autonomy, and loafing behaviour, this study found appropriate levels of reliability and validity, which suggests that the New Zealand context is comparable to other studies using these measures internationally. This research also has implications for management practitioners in providing a better understanding of white-collar workers' loafing behaviour, which could aid them in designing workplace policies related to loafing. It might also be used to inform employees on how particular loafing activities could in fact enhance their productivity without being detrimental to their organisations.

I would like to dedicate this thesis to

My Dearest Mother

Mutti, thesis ini untukmu

For who I am today is because of you

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Never would I have thought that I would ever return to an academic journey again after I finished my previous postgraduate degree. Nevertheless, here I am in utter disbelief, realising that I have almost closed another significant chapter in my life with absolute gratitude. I would never have been able to finish my thesis without the endless support of many individuals. These people have made this journey an enjoyable and memorable ride.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter One: Introduction

"If you think the line between loafing and working is getting fuzzier, it is"

(Sunoo, 1996, p. 56)

1.1   INTRODUCTION

Employees' loafing behaviour has always been a concern for employers because it interferes with the workers' work periods and it usually draws on the company's resources as well. This was highlighted again in a recent survey which revealed that 89% of employees admit to loafing on a daily basis, with 78% of them loafing for around 30 minutes to 2 hours every day, and 4% loafing at least half of the workday on average (Gouveia, 2014). The same survey also noted that employees in the finance and banking industry are the biggest loafers, followed by people working in the arts, media, and entertainment business (Gouveia, 2014). With regards to the types of non-work related activities that employees conduct at work, the possibilities are numerous and growing. To name a few, such loafing includes chatting with their colleagues near the water-cooler, receiving visits from family and friends, making personal phone calls, sending or receiving personal matters e-mails, browsing the Internet for dinner recipes, or checking and updating their personal social networking sites (hereafter abbreviated as SNS) accounts (e.g. Facebook, Twitter, LinkedIn, and Google+) (Bock & Ho, 2009; Boyd & Ellison, 2007; Ellison, Steinfield, & Lampe, 2007; Lim, 2002; Lim & Chen, 2012; Lim, Teo, & Loo, 2002; Messarra, Karkoulian, & McCarthy, 2011; Robinson & Bennett, 1995; Weatherbee, 2010).

Drawing on such evidence, research studies have been conducted and their results exhibit that any form of loafing can brings negative impacts to the organisations since loafing can decrease employees' job productivity which leads to lower performance (Johnson & Rawlins, 2008). These effects are estimated to affect the companies' bottom line from around US$ 34 million (Hallett, 2002; Lim & Chen, 2012) to US$1 billion (Bock & Ho, 2009; Liberman, Seidman, McKenna, & Buffardi, 2011). Contradictorily, however, other scholars have found some positive benefits of loafing behaviour such as that it provides the breaks that are necessary to recharge employees' concentration (Coker, 2013). It is also claimed to help by increasing employees' level of job satisfaction (Coker, 2013; Lim & Chen, 2012; Messarra et al., 2011), and work-life balance (Anandarajan, Paravastu, & Simmers, 2006; Moqbel, Nevo, & Kock, 2013), which may eventually increase their performance (Friedman & Greenhaus, 2000). These paradoxical effects have created debates amongst the academic studies and business practices about the overall impact of loafing at work.

With this situation, it is of interest to gain more knowledge and insight about the impact of loafing behaviour in organisations which will allow management to more effectively determine their standpoint and approach toward it.

1.2   GAPS IN THE LITERATURE

One sphere of the debate which claims the negative effects of loafing behaviour mostly highlights the relationship between the activities and productivity (Bock & Ho, 2009; Dixon, 2005; Hallett, 2002; Liberman et al., 2011; Lim et al., 2002), whereas the other group, which argues for the benefits of loafing behaviour, commonly emphasises the link between loafing behaviour and employees' satisfaction (Coker, 2013; Lim & Chen, 2012; Messarra et al., 2011). Very few studies include both job productivity and job satisfaction in their investigations concerning loafing activities (Douthitt & Aiello, 2001; Messarra et al., 2011; Urbaczewski & Jessup, 2002). Furthermore, the researcher has recognised that amongst these studies, the attention was mostly concentrated on evaluating a particular type of loafing separately, with physical loafing activities receiving the least attention.

Given the existing gaps in the current body of knowledge, this thesis seeks to examine the role of all different types of loafing activities in influencing employees' satisfaction and productivity, and investigates whether autonomy can help explain the relationships. The rationale for the path taken in the present research lies in the increasing use of SNS in particular and the Internet in general in daily lives. For managers, this may be exacerbated by the current advances in technology that make it difficult for employers to track employees' loafing behaviour, and hence, make loafing harder to manage.

In light of these objectives, this thesis is primarily concerned with the broad research question: "Do the type of loafing activities undertaken by employees at work and the time of occurrence of loafing affect their job productivity and satisfaction?".

1.3 SIGNIFICANCE OF THE STUDY

This thesis seeks to contribute to the organisational behaviour literature by empirically exploring the growing SNS phenomenon within a broader loafing context. Building on previous literature, this study aims to shed light onto how the engagement on SNS, other type of cyber-loafing, and physical loafing at work may affect organisations, by using productivity and satisfaction concepts as key outcomes, so management can better decide whether to encourage or discourage their employees' loafing behaviour.

1.4 OUTLINE OF THE THESIS

The present study comprises six chapters and is structured as follows[1]. This first chapter introduces the area of inquiry. Chapter Two reviews the existing literature relating to the topics of SNS, loafing, job productivity, job satisfaction, and autonomy that provide the foundation for this thesis. Chapter Three provides the development of the research framework and hypotheses. Following this, Chapter Four discusses the methodology and the methods of data analysis undertaken for this research. The data and its analysis are presented in Chapter Five. Chapter Six concludes with the theoretical and practical implications of the current findings, the limitations of the study, the opportunities for future research, and a summary of presented work.

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[1] Figure 1.1 presents the graphical outline of the thesis.
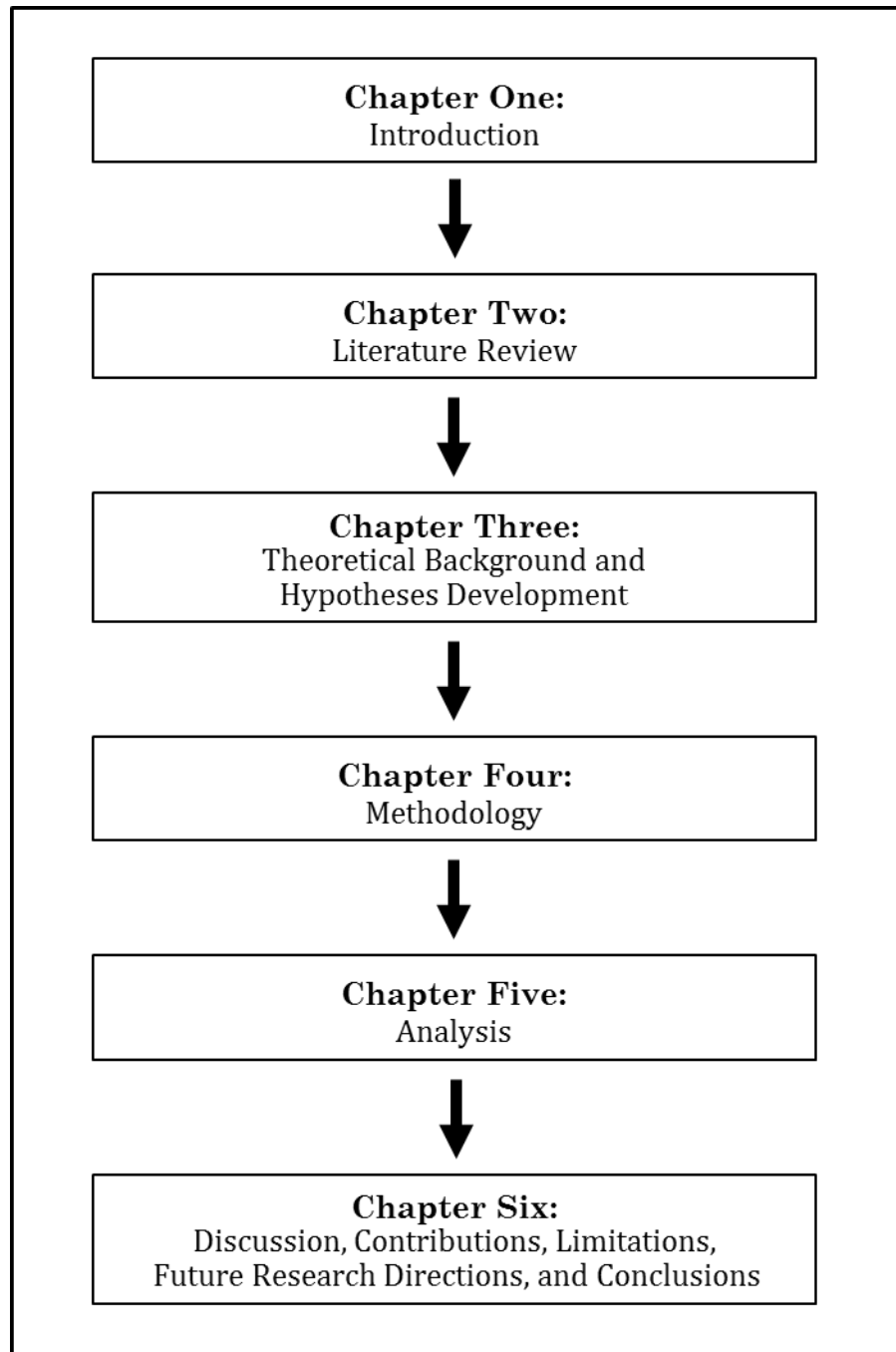
Figure 1.1. Thesis' Outline

Chapter Two: Literature Review

"I not only use all the brains that I have, but all I can borrow"— Woodrow Wilson

2. 1   INTRODUCTION

This chapter provides the background to the research model developed for this study by reviewing the extant literature from a number of areas related to the topic of interest. The literature review begins with an overview of the work-life balance concept. This is followed by a discussion on loafing and its attributes. The next two sections focus on job productivity and job satisfaction and their relationships to loafing behaviour. Lastly, autonomy as a mediating factor in this research is examined.

2. 2   WORK-LIFE BALANCE

2.2.1   HUMAN ROLES: BOUNDARIES AND TRANSITIONS

In life, human beings have different roles in different realms and from time to time, when someone crosses from one realm to another, the action also requires some adjustments in the roles. Furthermore, each role has its own identities and boundaries which will add to the complexity of the person's role switches.
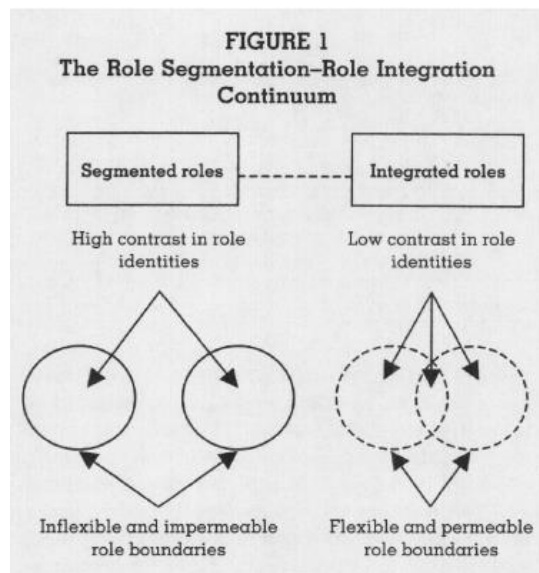
Figure 2.1. The Role Segmentation - Role Integration Continuum

Source: Ashforth, Kreiner, and Fugate (2000, p. 476)

The role boundaries are created by the individuals and it is constructed to define the scope and the perimeter of a particular role in a particular realm (Ashforth et al., 2000). Given that individuals normally have different roles in their lives, the boundaries are necessary to create clear distinctions between the roles. Boundary setting depends on two key aspects: flexibility and permeability of the roles, and it can vary from one individual to another. Flexible boundaries allow the role to be performed in different settings and at various times simultaneously and constantly (i.e. a baker who is also the owner of the bakery) whereas inflexible ones have a more constrained settings and times (i.e. prison guard). Permeable boundaries "allow one to be physically located in the role's domain but psychologically and/or behaviourally involved in another role" (Ashforth et al., 2000, p. 474). For example, an employee who can have family and friends visit her/him at work means s/he has permeable work role boundary also vice versa. Furthermore, roles with strong boundaries will tend to be more segmented from one another while roles with weak boundaries will be more likely to integrate with each other[2]. However, for the purpose of this research, further discussion focuses only on the integrated role.

The advantage of integrated roles is that the process of crossing the boundaries requires a less elaborate effort so it is easier for individuals to switch from one role to another (Ashforth et al., 2000). However, this is a double-edged sword since the less difficult the transition is, the more likely it is to happen frequently. For example, an employee who constantly sends and/or receives text messages from family and/or friends means that this person's role as a worker is being interrupted constantly by their role as a family member and/or a friend. As a consequence of the integrated roles, different roles can become blurred which can lead to confusion and anxiety not only from the individual themselves but also for those they are interacting with.

2.2.2 BRINGING PERSONAL LIFE TO WORK

Drawing on the concept explained above, it can be seen that some individuals may have the tendency to intertwine their roles (integrated roles), across realms (Bulger, Matthews, & Hoffman, 2007). This idea is useful in order to understand the

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[2] See Figure 2.1.

individuals who bring their personal life to work or vice versa. However, for the purpose of this research, this literature review will focus on the former.

Long hours at work could cause role conflicts for individual workers, and hence work-life imbalance. This could cause negative impacts for employees and, consequently, for their companies (Greenhaus & Beutell, 1985; Hobson, Delunas, & Kesic, 2001; Moqbel et al., 2013). Work-life balance relates to whether an equilibrium is achieved between achievement and enjoyment through work (i.e. career) and lifestyle (i.e. family, leisure, spiritual development, health), with the understanding that it does not necessarily mean an equal number of hours for each domain (Bird, 2003; D'Abate, 2005; D'Abate & Eddy, 2007). Many studies have found that companies that give their employees a chance to balance their lives are likely to have more committed and more satisfied individuals and hence, higher levels of organisational performance (Friedman & Greenhaus, 2000; Langford, 2009; Lazăr, Osoian, & Raţiu, 2010; Moqbel et al., 2013). Therefore, work-life balance is critical to business (Langford, 2009).

On average, non-work related activities in the work place are carried out by employees 80 minutes per day (D'Abate, 2005; D'Abate & Eddy, 2007). According to studies (Bock & Ho, 2009; Lim, 2002; Lim & Chen, 2012; Messarra et al., 2011; Robinson & Bennett, 1995; Weatherbee, 2010), these activities cover using the phone to communicate with family and friends; sending or receiving e-mails (usually via personal accounts) to make social plans; conducting social conversations about sports, family, or hobbies with colleagues; surfing the internet for dinner recipes, online banking, travel information, or finding news about favourite celebrities; making doctors, hairstylists, or other services' appointment; paying personal bills; leisure reading like magazines and newspapers; organising or planning for personal time like errands or vacations; betting pools for their favourite sport clubs; daydreaming; and receiving visits from friends and family.

Having looked at these numerous possibilities for non-work activities, several themes occur. The first one relates to the medium they use. These activities can be divided into being conducted via internet or direct physically contact. A second theme within these activities concerns communication. In general, individuals have the emotional need to engage in regular communication with the people in their lives

(Moqbel et al., 2013). It is also safe to assume that if individuals are in regular contacts with others, they will have a more balanced and happier life (Moqbel et al., 2013).

Although arguably all of these activities would be conducted to achieve a balance life between professional and personal worlds from the employees' viewpoints, their employers may view it differently. To the organisations, those activities are not related to work and can be considered as a form of loafing.

2. 3   LOAFING

2.3.1 CONCEPT, IMPACTS, AND TYPES

Loafing is a manifestation of the presenteeism concept (Moqbel et al., 2013). The word presenteesism originates from the word present and absenteeism. Presenteeism can be described as employees who are physically present at work but may not perform to the best of their ability, due to reasons such as a lack of concentration or absentmindedness (D'Abate & Eddy, 2007; Simpson, 1998). This can be caused by physical, mental, personal, or work place problems (Dixon, 2005). Preseenteism theory was originally introduced to describe the situation where employees come to work but they are sick or injured, and therefore could not function at their peak levels (Simpson, 1998). However, later it was also used to categorise people who are physically at work but mentally not focused on work-related activities because they have been distracted by personal matters or non-work related activities (D'Abate & Eddy, 2007; Moqbel et al., 2013; Simpson, 1998).

Loafing by employees means they are not entirely focussed on their work due to other non-work related matters (Moqbel et al., 2013) but it is not a form of withholding effort (i.e. "shirking") (Kidwell & Bennett, 1993). Most employees think their loafing behaviour only takes a couple of minutes and therefore, is harmless. However, often it adds up to hours and can make the employees less productive (Lim, 2002). This was demonstrated by a recent survey of American workers which revealed 89% of them admit to loaf daily, a significant increase of 20% compared to the year before (Gouveia, 2014). 78% of the respondents admit to loafing between 30 minutes to 2 hours daily and 4% loaf at least half of the workday on average (Gouveia, 2014). Amongst those

loafers, employees between the ages of 26 to 39 are the biggest loafers. Moreover, when many employees in an organisation conduct loafing activities, other workers are more likely to imitate this behaviour. Hence, loafing can become a norm (Liberman et al., 2011; Martin, Brock, Buckley, & Ketchen, 2010), and in the bigger picture, it can seriously damage the company's productivity (Bennett & Robinson, 2000; Dixon, 2005). Furthermore, as mentioned above, this research also recognised two different types of loafing activities: physical and virtual (Gouveia, 2014), which will be described below.

2.3.2 PHYSICAL LOAFING

Management scholars have identified loafing behaviour in physical form for several decades (Bock & Ho, 2009; Snyder, Blair, & Arndt, 1990). Back in 1983, ABA Banking Journal (Bock & Ho, 2009; Lim, 2002; Robinson & Bennett, 1995; Weatherbee, 2010) published a comprehensive list describing the various types of activities that are not related to work which includes taking overly long lunch or coffee breaks, reading newspapers, social conversations with colleagues, using either a cell phone or telephone to make and/or receive non-work related phone calls, running non-work related errands during work hours, and taking breaks in between work tasks (e.g., bathroom breaks, snack breaks, stretch breaks) outside of the time that is allotted by one's supervisor. Other scholars also add receiving non-work related visits from friends and/or families and daydreaming as part of physical loafing (Bennett & Robinson, 2000; Liberman et al., 2011).

As a type of loafing behaviour, physical loafing has been argued to be unbeneficial to companies (Bennett & Robinson, 2000), but has not necessarily been studied in depth. Some researchers debate that it could have a positive effect on job performance (Bock & Ho, 2009), particularly in the case of communication. Bock and Ho (2009) claim that there is a strong possibility that during the social conversations the employees may discuss workplace issues, so indirectly, the chat may help them solve work-related problems. Moreover, the informal conversation may improve their bonding, and thus increase their overall job performance (Bock & Ho, 2009).

Physical loafing at one's workplace has been occurring for a very long period of time. However, since the use of Internet has become a more regular feature in people's

daily work activities, another type of loafing called cyber-loafing emerged. This new development obviously could be problematic to companies because it could add to any loafing workplace consequences that physical loafing already created. This was highlighted by several studies which stated that employees who engage in physical loafing are more likely to be involved in cyber-loafing activities because they use the similar justifications in doing both (Berry, Ones, & Sackett, 2007; Blau, Yang, & Ward-Cook, 2006; Bolin & Heatherly, 2001; D'Abate, 2005; Dalal, 2005; Liberman et al., 2011). The following sub-section will give further explanation about cyber-loafing.

2.3.3 CYBER-LOAFING

Over the last three decades, the existence of the Internet has changed the way people operate their lives dramatically, whether it was in the way they work, play, or communicate. Furthermore, the penetration of the Internet into the workplace has brought tremendous benefits to business as it can help to reduce costs, shorten product cycle times, increase access to information, improve the chain of communications, and provide new ways to market their products and services (Liberman et al., 2011). In contrast, it could be equally disadvantageous because the Internet also provides employees with access to the world's biggest amusement park (Bock & Ho, 2009; Lim et al., 2002). Around 26% of employees admit to allocating their work-time by browsing the Internet (Gouveia, 2014).

a. Definition

Cyber-loafing, also known as cyber-slacking or cyber-bludging (Lim, 2002; Lim & Chen, 2012; Messarra et al., 2011; Weatherbee, 2010), can be defined as the employees' voluntary acts in accessing the Internet for non-work related purposes during working hours (Bock & Ho, 2009; Lim, 2002; Lim & Chen, 2012; Lim et al., 2002; Messarra et al., 2011). Many scholars also focus on the use of the organisations' Internet connection and computer resources in conducting cyber-loafing (Bock & Ho, 2009; Robbins & Judge, 2009). However, in recent years with the acceleration of advanced technology such as smartphones which are equipped with data connectivity (Weatherbee, 2010), employees are no longer dependent on their organisation's resources to cyber-loaf.

Therefore, in this study, this requirement for cyber-loafing has been excluded from the definition.

b.   Type of Activities

Based on the existing literature in regards to cyber-loafing, this behaviour covers a wide range of activities which in general can be categorised as follows (Bock & Ho, 2009; Coker, 2013; Lim, 2002; Lim & Chen, 2012; Messarra et al., 2011; Weatherbee, 2010):

1. Personal e-commerce
   a. Online stock trading
   b. Online banking
   c. Internet shopping
   d. Organising and conducting personal business (moonlighting)
   e. Browsing or participating in online auction websites
2. Personal communication
   a. Personal emailing
   b. Instant messaging
   c. Participating in personal newsgroup/forum postings (including blogs).
3. Internet browsing
   a. Read online news
   b. Data search for personal interest
   c. Job hunting
4. Downloading files for personal purposes
5. Internet Entertainment
   a. Online gaming
   b. Online gambling
   c. Watching online media (e.g. video streaming)
   d. Viewing adult-oriented (sexually explicit) websites

In contrast, Mastrangelo, Everton, and Jolton (2006) categorised the types of cyber-loafing activities above as Counterproductive Computer Use and Non-Productive Computer Use, based on their potential for harm. The former involves activities that may cause legal problems to the organisation (e.g., illegal downloading, distribution of

pornography, exposing the firm's systems to viruses, or 'malware' through surfing, and online gaming), whereas the latter consists of activities that are seen to be less destructive (e.g., online banking, non-work-related emailing activities). Research found that employees are more likely to engage in cyber-loafing activities that they perceive to be harmless rather than activities that potentially have serious negative consequences, because they do not want to risk the company's disciplinary actions (Blanchard & Henle, 2008; Vivien & Thompson, 2005), especially since companies are more likely to punish serious loafing behaviours compared to the minor cyber-loafing actions (Lichtash, 2004; Simmers, Anandarajan, & D'Ovidio, 2008). To gauge the extent of these issues, a survey in the United States of America (USA) found that over 60% of the American employees had been disciplined and over 30% of the companies had fired workers for Internet misuse (Greenfield & Davis, 2002).

Although personal emailing normally does not cause serious liability, it does have the tendency to trigger a negative effect on employees' productivity since studies have shown that 40% of the employees did not return to their original task after emailing (Lim & Chen, 2012). This would be a concern especially since personal emailing as well as internet browsing are employees' preferred procrastination options (Lavoie & Pychyl, 2001). These activities provide a displacement where the employees try to avoid other job tasks (Lavoie & Pychyl, 2001).

c.   Negative Impacts

With the ease of Internet access these days, more and more employees engage in cyber-loafing and as a result, they have less time to do the actual work. In fact, four of five employees who have access to Internet and computers at work do conduct cyber-loafing (Garrett & Danziger, 2008aa). Numerous studies demonstrate the globally widespread cyber-loafing phenomenon. Employees in the Asia Pacific region spend roughly 4.2 hours per week on cyber-loaf activities, with Chinese as the biggest loafers since they conduct cyber-loafing for around 5.6 hour weekly (Zhou & Zhuoqiong, 2005). Furthermore, Singaporeans spent approximately 38 to 51 minutes per day (Lim & Chen, 2012). Alternatively, American workers reported a slightly higher organisational time to using the Internet with an average of 1.25 (Fox, 2007) to 1.7 hours (Liberman et al., 2011) per day. This more alarming number in the USA is not surprising as according to a survey by an American Internet monitoring company, 61% of American employees

engage in some form of cyber-loafing and within that group, on average, they spent about 24% of their working hours loafing virtually, implying an average of 10 hours per employee per week (Lim & Chen, 2012). Similarly, evidence in the United Kingdom (UK) revealed that the employees spent about 40% of their working hours loafing on the Internet (Amble, 2004). This increased over Christmas due to the Christmas e-card correspondence which led to 22 million working hours lost (Hallett, 2002). Parallel results were found in Vivien & Thompson's (2005) and Vault.com's (Bock & Ho, 2009) studies which revealed 88% and 90%, respectively, of their respondents admitted cyber-loafing (Bock & Ho, 2009). It seems that loafing behaviour is prevalent in today's society so it is unsurprising that the majority of employees perceive cyber-loafing as acceptable (Lim & Chen, 2012). According to Lim (2002), one of the justifications to cyber-loaf was because the employees claim that they have accumulated enough "credits" by finishing their work, and thus, they are allowed to be "cashing in" these accrued credits by loafing on the Internet to make it fair.

Fair or not, this situation of the loss of employee's time on non-work related task is a concern to organisations, especially with the mounting evidence regarding the negative impacts of cyber-loafing on organisations' overall performance, in terms of reducing its profitability and productivity (Bock & Ho, 2009; Dixon, 2005; Lim et al., 2002). Moreover, cyber-loafing has been argued to cause missed deadlines, slowed computer time, loss of goodwill, and the generation of poor customer service (Messarra et al., 2011). Many studies reported that, annually, cyber-loafing can cost businesses from US$ 34 million (Hallett, 2002; Lim & Chen, 2012) to $54 billion (Liberman et al., 2011) in the USA and around £154 million in the UK (Hallett, 2002; Lim & Chen, 2012). Furthermore, these studies suggested that cyber-loafing caused a 30-40% productivity decrease (Bock & Ho, 2009; Liberman et al., 2011).

Based on these estimates, it is apparent that cyber-loafing can lead to reductions in productivity and an inefficient use of resources which results in an uncompetitive organisation. Therefore, it is reasonable to assume companies see cyber-loafing as a perennial threat to their performance, profitability, and productivity (Weatherbee, 2010).

d. Positive Impacts

Although there is much evidence focussing on the negative impacts of cyber-loafing, some researchers have proposed an opposite effect.

The first benefit of cyber-loafing is that it provides breaks for the employee. Ideally, employees should be able to remain focused for long periods without taking a break to restore concentration. However, in reality, as the employee's mental resources are expended, their concentration will decline after 5 to 15 minutes, depending on the job task (Warm, Parasuraman, & Matthews, 2008). The more intense the task, the faster the attention decreases (Coker, 2013). Moreover, an employees' inability to replenish their attentional resources will ultimately result in declining performances. Therefore, it is evident that taking small breaks in addition to the scheduled breaks can be important to improve the employees' attentional resources (Coker, 2013; Simmers et al., 2008). Not only that, but breaks may also aid employees to make better decisions over time (Lehrer, 2009; Speier, Valacich, & Vessey, 1999) and improve their ability to control stress in the office and avoid burnout (Lim & Chen, 2012; Uleman & Bargh, 1989). Recent research has suggested that more pleasurable breaks will result in greater endurance task vigilance than less enjoyable breaks, because pleasure is essential for emotional well-being, sense of accomplishment, and creativity which are all related to attention alertness (Coker, 2013; Csikszentmihalyi, 1975).

Before the Internet, people typically took breaks in a form of physical activities such as having informal chats with their co-workers or having toilet breaks. More recently, the Internet provides employees with their mini breaks by for example watching videos on YouTube. Stanton (2002) study revealed that employees found non-work related Internet browsing at work is a pleasurable activity. Referring back to the studies mentioned above, should the employees choose to undertake online recreation (cyber-loaf) as their additional breaks, it could prove beneficial (Coker, 2013; Lim & Chen, 2012). Therefore, cyber-loafing is argued should be treated more as another informal break activity rather than workplace deviance behaviour (Coker, 2013).

The second benefit of cyber-loafing is making the employees feel more satisfied about their jobs, thus more productive (Lim & Chen, 2012; Messarra et al., 2011). Stanton's (2002) research revealed that employees who use the Internet for non-work related activities may frequently be happier and more productive workers. Another study reported that employees think that cyber-loafing makes their work become more interesting, and thus made them turn into more interesting workers (Lim & Chen, 2012). This would increase their workplace morale and subsequently make them perform better (Lim & Chen, 2012). Conversely, banning them from cyber-loafing seems to lower

their morale and as a result decrease their job satisfaction and productivity (Douthitt & Aiello, 2001; Messarra et al., 2011; Urbaczewski & Jessup, 2002).

e.   Company Policies on Cyber-loafing

The two spheres of possible negative and positive impacts of cyber-loafing for organisations cause a dilemma for management in designing an Internet policy. On one hand, cyber loafing could be a greater threat to a company compared to physical loafing because the Internet makes loafing activities become easier and less visible and thus harder to monitor by management. Based on this situation, many companies may make a policy that prohibits Internet for personal use during work hours. However, contrariwise, cyber-loafing may bring benefits to the organisations and raises questions on whether those advantages should be harnessed by the management.

Messarra et al.'s (2011) study found that applying restrictions on personal Internet use at work decreases cyber-loafing. Also, such a policy had no direct relationship to job satisfaction. Since the study only investigated Internet loafing using the office's computer, it was not known whether permission in cyber-loafing on one's own device might change the cyber-loafing intensity and/or aid job satisfaction under some circumstances. Furthermore, Messarra et al. (2011) reasoned that allowing the employees to cyber-loaf will eventually lead to an increase in employees' satisfaction. Therefore, Messarra et al. (2011) suggest that companies should train their employees to be responsible in its usage and be aware of its consequences.

Based on the discussion above, it is apparent that cyber-loafing behaviour has become a trend in the past decades. This situation has been exacerbated by the development of SNS in the late 1990s which will be discuss in the following sub-section.

2.3.4 SOCIAL NETWORKING SITES LOAFING

In the beginning, SNS was developed to create virtual communities to bring people together to interact through chat rooms (Boyd & Ellison, 2007). Later on, starting in 1997, the SNS began to focus more on the users' profiles through personal profiles and lists of friends (Boyd & Ellison, 2007). These features soon became part of the SNS mainstream and quickly grew in popularity globally (Boyd & Ellison, 2007).

a.   Definition

According to Boyd and Ellison (2007, p. 211), SNS is "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection with, and (3) view and traverse their list of connections and those made by others within the system."

b.   Types of SNS

SNS can be divided into two main types: internal (e.g. Watercooler at HP, Beehive at IBM, and Town Square at Microsoft) and public (e.g. Facebook, Twitter, and LinkedIn) (Ellison et al., 2007; Moqbel et al., 2013). The internal SNS are owned by companies and used internally while the public SNS are run by commercial providers (Moqbel et al., 2013). The present study will only focus on the public SNS because internal SNS are less likely to be associated with loafing behaviour.

c.   SNS Usage

The growing popularity of SNS in society nowadays is clearly evident in the number of users on each SNS. For example, Facebook has more than 964 million registered users worldwide and ranked as the eBizMBA's number 1 SNS as of June 2013 (Yang & Lin, 2014). MySpace has 126 million memberships, followed by LinkedIn which has about 36 million members and Twitter, 10 million users (Yang & Lin, 2014).

Technological advances like tablets and smartphones have further changed people's way of accessing the Internet. With these gadgets, people can surf the net at whatever times and wherever place theywish. A survey by Gouveia (2014) found that 23% of the respondents check Facebook whereas 14% check LinkedIn, while only a small number (2%) view YouTube at work. Typically, these users check their SNS accounts for 20 minutes a day and two-thirds of them normally log into their SNS accounts at least once per day (Ellison et al., 2007). Moreover, Hubspot reported 33% of time online was spent on Facebook resulting in 53.5 billion minutes spent on Facebook (Rauniar, Rawski, Yang, & Johnson, 2014, p. 7). This clearly shows how closely integrated SNS are in people's daily lives, not only in their personal time but also potentially during professional hours. Since SNS are on the Internet, accessing them

during office hours for personal purposes makes them a form of cyber-loafing, and thus they could share similar controversy and traits.

There are many debates around SNS usage at work as well. SNS usage at work, which from this point onwards will be called SNS loafing, is argued to decrease job productivity which then will lead to lower performance (Johnson & Rawlins, 2008). In contrast, SNS is claimed to be the useful medium to achieve work-life balance (Moqbel et al., 2013). The next sub-sections explore the risks and the benefits of SNS loafing on organisations based on the past literature.

d.   Negative Impacts

As a part of cyber-loafing, it is obvious that SNS loafing in general possesses all the negative impacts associated with cyber-loafing. Firstly, SNS loafing is accused to be a theft of work time in which employees have stopped working to pay attention to their SNS accounts (Ellison et al., 2007). Consequently, they may delay their job tasks which would cause their productivity to decrease (D'Abate & Eddy, 2007; Johnson & Rawlins, 2008; Messarra et al., 2011; Moqbel et al., 2013). Since any slight change in productivity will impact the organisations' costs, it is apparent that an organisation may have as much concern with SNS loafing as they do for cyber-loafing. Several studies have highlighted this worry: an IT research firm reported in July 2009 that employee productivity drops 1.5% at companies that allow full access to Facebook in the workplace (Gaudin, 2009; Messarra et al., 2011). The same survey also showed that 77% of workers who have a Facebook account use it during work hours (Gaudin, 2009).

Moreover, SNS is being blamed to lower the quality of employees' performance since they tend to engage in SNS loafing simultaneously with their work, a form of multitasking (Bock & Ho, 2009; Ellison et al., 2007). Unlike the time theft case in which employees stop their work to engage in SNS loafing, in multitasking the work does not stop (Ellison et al., 2007). Instead, the employees divide their attention between work tasks and SNS loafing (Ellison et al., 2007). This situation mostly happens in instant messaging. Most SNS platforms provide a messaging feature and the typical SNS users utilise this actively. Jackson, Dawson, and Wilson's (2003) study found that this feature proves to be a distraction for employees since it requires immediate attention. Furthermore, it takes more than 64 seconds for the employees to recover to the same

concentration rate on their work task after every message (Jackson, Dawson, & Wilson, 2003). Constant interruptions may result in a great deal of time wastage. Moreover, such multitasking means the employees are not fully focussed on their job, and thus, the quality of their work may suffer.

The other feature of SNS is the facility for the users to make posts. This may create problems and negative consequences to both employees as individuals and the organisation as a whole if the employees create posts that are offensive, disparaging of co-workers, or customers, that represent the organisation poorly, diminish someone's reputation, and/or breach an organisation's confidentiality - as this kind of content may invite attacks on someone's or some organisation's reputation as well as pose legal risk to the organisation (Ellison et al., 2007; Liberman et al., 2011; Weatherbee, 2010).

e.   Positive Impacts

Since SNS loafing is a part of cyber-loafing, it can be argued to generate identical positive impacts to the organisation for cyber-loafing. Thus, SNS loafing could allow mini breaks that give the opportunity for the employees to temporarily take their mind off work, and help them to be more focussed and perform better (Coker, 2013; Landers & Callan, 2014).

Moreover, SNS loafing can also make employees feel more satisfied about their jobs through the achievement of work-life balance (Moqbel et al., 2013). As mentioned above, SNS platforms with posting and instant messaging facilities enable the users to converse with each other and therefore, it is not surprising that many people use SNS as a medium to maintain communication with their family and friends (Ellison et al., 2007). In this case, SNS helps the individuals to fulfil their sense of emotional urgency to communicate (Moqbel et al., 2013). As the employees use SNS at work to keep in touch with their families and friends, the three realms – work, home, and leisure are combined together and help make the life of the employees become more in balance (Moqbel et al., 2013). Employees with more balanced lives feel more satisfied about their jobs and consequently work better (Friedman & Greenhaus, 2000; Messarra et al., 2011; Moqbel et al., 2013). Moqbel et al.'s (2013) study shows that for every 10% increase in SNS use intensity, the employees' job satisfaction level increases by 2.2%. Furthermore, for every 10% increase in job satisfaction level, the employees' performance will increase 3.1%

(Moqbel et al., 2013). Based on the findings, it is expected that employees believe doing SNS loafing is worthwhile (North, 2010).

Following the argument that SNS loafing increases employees' satisfaction, it has also been argued that SNS loafing can escalate employees' productivity too through the increase of employees' morale (Bennett, Owers, Pitt, & Tucker, 2010; Moqbel et al., 2013). However, it is important to note that as Coker (2013) suggests, SNS usage may have a curvilinear relationship with job productivity in which the usage should be less than 12% of their work time, to make the employee maintain higher productivity.

In summary, it seems that SNS loafing does not necessarily equate to a decrease of employees' performance. This means that allowing employees a few minutes of work time on SNS loafing may not necessarily translate into a financial loss. It may well be seen as an investment for a greater long-term bottom line.

2.4 JOB PRODUCTIVITY

Most organisations' main goal in business is to be successful and make profits (Kanungo, 1986). Therefore, in order to generate the desired returns, it is important for organisations to increase the productivity of their workforce (Ray & Sahu, 1989), particularly for knowledge workers (Drucker, 1999) or white-collar workers (Nickols, 1983; Ramírez & Nembhard, 2004).

a. DEFINITION

Productivity can be defined as efficiency in production: the amount of output obtained from a given set of inputs in a specific period of time (Schreyer, 2001; Syverson, 2011). Typically, the productivity of a given subject (e.g. person, machine, factory, system, etc.) is assessed relative to an average for similar subjects doing similar work (Schreyer, 2001; Syverson, 2011).

Employee productivity is an assessment of the efficiency of a worker or group of workers in producing goods and/or services in a given input (i.e. the amount of time, the type of task, and the number of people in employment) (Schreyer, 2001).

Based on the existing literature, job productivity and job performance are often equated. However, this thesis will consider them as distinct concepts with productivity as a part of performance (Pekuri, Haapasalo, & Herrala, 2011). Figure 2.2 illustrates these relationships between them. For clarity, the word job productivity and job performance will be used separately throughout.
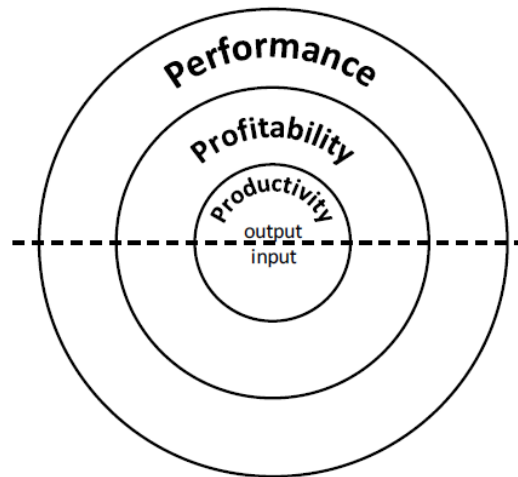
Figure 2.2. Relationship between performance, profitability, and productivity

Source: Pekuri et al. (2011, p. 49).

b.   WHITE-COLLAR WORKERS

Traditionally, productivity has been associated with the optimisation of direct manufacturing and manual workers (Ray & Sahu, 1989). However, with the increase in technology and workplace automation, the percentage of white-collar workers has risen. Consequently, companies have started to pay more attention to this type of employee (Ray & Sahu, 1989; Schroeder, Anderson, & Scudder, 1986).

White-collar jobs range widely from those which are creative and innovative in nature to those which are quite routine and structured (Drucker, 1999; Nickols, 1983; Ramírez & Nembhard, 2004; Ray & Sahu, 1989; Thomas & Baron, 1994). White-collar workers are typically individuals with a high degree of education or expertise whose job requires substantial professional skills because it mainly converts information or knowledge from one form to another with the aim to produce a certain final form of product or service required for the business (Drucker, 1999; Nickols, 1983; Ramírez & Nembhard, 2004; Ray & Sahu, 1989; Thomas & Baron, 1994). White-collar occupations can be categorised into three groups: clerical, professional, and managerial with the

examples including managers, engineers, computer programmers, lawyers, accountants and purchasing agents (Coates, 1986) and such workers would typically have more discretion to engage in loafing behaviour (Andreassen, Torsheim, & Pallesen, 2014; Garrett & Danziger, 2008b).

c.   THE RELATIONSHIP BETWEEN JOB PRODUCTIVITY AND LOAFING

Instinctively, assuming other things are equal, white-collar workers who spend more time on their work are likely to perform better due to the increased input. Correspondingly, the less time such employees allocate to their work, the poorer they would perform. However, in practice, the relationship between job performance, job productivity and loafing could be more complex.

As discussed previously, the more concentrated a task, the faster attention decreases (Coker, 2013). Since it seems that white-collar workers have more workload that require more intense brain power compared to other types of workers, it is more likely for them to have or need breaks in between work tasks by, for example, checking their SNS accounts. Coker (2013) proposed the maximum of 12% of employees' work time to keep it beneficial. However, as many reported, not all individuals do limit themselves in loafing. In fact, there are many individuals who exceed this advised limit (Amble, 2004; Ellison et al., 2007; Gouveia, 2014; Liberman et al., 2011; Zhou & Zhuoqiong, 2005).

As above, loafing activities, be they physical loafing, cyber-loafing, or SNS loafing, normally bring direct negative impact to employees productivity but at the same time, if there is a positive effect on job satisfaction and organisational commitment, they could eventually affect employees' job performance positively (Bennett et al., 2010; Bock & Ho, 2009; Coker, 2013; Lim & Chen, 2012; Moqbel et al., 2013). Furthermore, different types of loafing may cause different impacts on job productivity and overall performance. Bock and Ho (2009) found that cyber-loafing reduces employees' productivity, whereas physical loafing increases employees' performance. So, should the employees do both types of loafing, at the end there is a possibility that the effects of those two offset each other, and hence, do not affect the organisation negatively.

Moreover, there is also a dilemma amongst business practitioners on controlling employees' loafing behaviour. It is understood that tight control will increase the

productivity in the short term at the cost of employees' satisfaction. This could lead to the long term lowering of productivity levels (Bock & Ho, 2009).

2.5 JOB SATISFACTION

It is a common belief that one of an organisation's main goals is to increase productivity in order to gain more profits. Kanungo (1986) has identified two major influences that were believed to have substantial effects on productivity: job satisfaction and job involvement. Since several studies have found the positive association between employees' satisfaction and productivity (Friedman & Greenhaus, 2000; Judge, Thoresen, Bono, & Patton, 2001; Lim & Chen, 2012; Messarra et al., 2011; Moqbel et al., 2013; Stanton, 2002), also emphasised by the above discussion, the present study will focus only on job satisfaction and exclude job involvement.

a. DEFINITION

To many individuals, jobs are important since they provide a sense of accomplishment and identity (Onukwube, 2012) in addition to income. It is also common for people to identify themselves with their professions. Consequently, it is important for individuals to feel satisfied with their occupation in respect to their well-being. Moreover, as mentioned above, happier employees will tend to perform better, be more productive, be absent less, and be more committed to the organisations (Ho & Nesbit, 2014; Onukwube, 2012; Petty, McGee, & Cavender, 1984). Therefore, employees' job satisfaction is also vital to the organisation and should be the area of concern for management.

Robbins and Judge (2009, p. 30) describe job satisfaction as "a positive feeling about one's job resulting from an evaluation of its characteristics", whereas Locke (1969) defines it as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience. Organ and Near (1985) simply stated it as an organisational member's happiness at work, while Messarra et al. (2011) classify job satisfaction as an emotional reaction to how well outcomes meet or exceed the employees' expectations. In summary, job satisfaction can be defined as how much an individual is fond of his/her job (Smith, Kendall, & Hulin, 1969).

b.   **THE RELATIONSHIP BETWEEN JOB SATISFACTION AND LOAFING**

Research has shown that an employee's perspectives of their work environment, whether it is derived from the nature of the job itself or from external factors such as supervision, will reflect correspondingly to their satisfaction level of their occupation (Janz & Prasarnphanich, 2003; Messarra et al., 2011; Moqbel et al., 2013).

There is very limited research about the effects of cyber-loafing on job satisfaction (Robbins & Judge, 2009). Those that exist found that employees who are discontented with their work environment tend to cyber-loaf more (Darrat, Amyx, & Bennett, 2010; Mount, Ilies, & Johnson, 2006; Robbins & Judge, 2009). This description has further supported by Galetta (2003) who stated that job dissatisfaction is likely to make employees feel detached from aspects of their jobs, thus, substituting work tasks with cyber-loafing.

Several researchers found that this situation will lead to lower performance (Douthitt & Aiello, 2001; Judge et al., 2001; Lim & Chen, 2012; Messarra et al., 2011; Urbaczewski & Jessup, 2002). However, Mahatanankoon (2002) found that the relationship between job satisfaction and cyber-loafing may also be dependent on employees' personality, culture, and norms. Some people can cyber-loaf without lowering their performance quality or feeling dissatisfied. Given this reasoning, it is evident that a balanced work environment can enhance employees' job satisfaction (Janz & Prasarnphanich, 2003; Moqbel et al., 2013). Additionally, researchers also found that employees who can balance their professional and personal lives have the tendency to feel more satisfied about their job and are less likely to feel burnt out (Malik, Saleem, & Ahmad, 2010; Moqbel et al., 2013). Overall, some loafing may be positively related to job satisfaction, whereas this relationship can be reversed when employees are dissatisfied.

c.   **JOB SATISFACTION'S FACETS**

Job satisfaction has many facets. It can be the overall satisfaction of the occupation in general (what is it like most of the time) (Brayfield & Rothe, 1951) or more particular aspects which are described as followed.

First, there is the nature of the work itself. This facet can be defined as the extent to which the job provides employees with stimulating tasks, opportunities to learn and

grow, and the chance to be responsible and accountable for results (Robbins & Judge, 2009). It also covers the kind of work activities one does, the operating procedures, and the work-life balance the jobs were entitled to (Brayfield & Rothe, 1951; Janz & Prasarnphanich, 2003; Langford, 2009; Moqbel et al., 2013; Petty et al., 1984; Porter, Steers, Mowday, & Boulian, 1974; Rehman, 2011; Rehman & Waheed, 2011; Spector, 1985). A study found that 'the work itself' facet has a significant relationship with job satisfaction, which means the better the feelings employees have towards the occupation itself, the happier they are (Oshagbemi, 2000). Correspondingly, if employees dislike the nature of the profession, the more likely s/he feels less satisfied (Oshagbemi, 2000).

Second is pay/remuneration. This aspect is influential to employees' satisfaction as it is closely related to their economic need fulfilments. This aspect may include salary, fringe benefits, contingent rewards, and other types of compensation. It is essential for organisations to understand the importance of this facet to employees' satisfaction since dissatisfaction with their payment could decrease an employee's commitment to the job (increasing absenteeism, coming late to work, taking longer breaks, and decreasing productivity), provoke stealing, and increasing turnover (Currall et al., 2005; Greenberg, 1990). Although important, scholars have found ambiguous results regarding the relationship between pay and job satisfaction (Onukwube, 2012). Oshagbemi (2000) suggested that both are significantly related while Young, Worchel, and Woehr (1998) found no significant relationship between the two variables.

The subsequent dimension is the employees' satisfaction level with supervision. The relationship between employees and their immediate supervisor is an important facet to determine employees' satisfaction (Onukwube, 2012; Robbins & Judge, 2009). The supervisor's ability to supervise; provide emotional and technical support; give guidance in work related task; be considerate about employees feelings, well-being, and contributions; as well as be democratic, are the predictors in this facet (Onukwube, 2012; Robbins & Judge, 2009).

Next, researchers have found that promotion has a positive relationship with job satisfaction (Cattell, Edwards, Distiller, & Bowen, 2008; Oshagbemi, 2000; Pergamit & Veum, 1999). This is because promotion or even promotion opportunities provide the chance to grow and develop themselves, thus, enabling them to feel more satisfied.

Lastly, studies have shown that good relationships with colleagues contribute to an increase of one's satisfaction (Beehr, 2003; Bonache, 2005; Kreitner & Kinicki, 2008). This is intensified if the co-workers are also viewed as friends and/or a support system, as communication between colleagues is better and makes for happier employees (McNeese-Smith & Nazarey, 2001).

In summary, people behave and react correspondingly to their met expectations. When expectations in regards to the job satisfaction aspects above are met, they will respond by contributing more to the organisational goals (Porter & Steers, 1973). Otherwise, when employees feel that the organisation fails to meet their expectations, they will react negatively and this can be in a form of loafing (Porter & Steers, 1973).

2.6 AUTONOMY

The importance of autonomy as a key job characteristic among skill variety, task identity, task significance, and feedback has been proclaimed by numerous scholars across several research domains (Breaugh, 1985; Hackman & Oldham, 1976). In fact, autonomy was the most commonly and frequently manipulated organisational variable in experiments related to job characteristics (Cummings & Molloy, 1977), and thus, an important moderating factor on the subject of work-life balance and productivity (Breaugh, 1985).

Several researchers have connected autonomy with job satisfaction (Breaugh, 1985; Hackman & Oldham, 1980; Littman-Ovadia, Oren, & Lavy, 2013; Loher, Noe, Moeller, & Fitzgerald, 1985), while others have linked it with job productivity (Stanton, 2002). Littman-Ovadia et al. (2013) and Loher et al. (1985) postulated that decentralisation at work in the form of autonomy positively affected employees' satisfaction. Janz and Prasarnphanich (2003), however, found that not all employees, especially white-collar workers, embrace increased levels of autonomy. Autonomy will only be appreciated if it is parallel with organisational support and acknowledgement in employees' strong performance along with low levels of fear of reprisal from failure in taking educated risks. Moreover, higher degrees of autonomy require higher level of self-leadership skills in order to generate success (Neck, 1993). Therefore, Ho and

Nesbit (2014) delineated that people with lower self-leadership will feel more satisfied if they work under low job autonomy, and vice versa.

Furthermore, Stanton (2002) stated that lack of autonomy leads to short term productivity at the cost of the workers satisfaction, but it can reduce long term productivity. Moreover, autonomy has a positive correlation with performance quality and organisational commitment (Anand & Chhajed, 2012) but negative relationship with absenteeism and burnout (Hackman & Oldham, 1975).

Normally, white-collar occupations are privileged with moderate to high levels of autonomy in conducting their day-to-day work. However, it could be a double-edged sword as with a greater degree of freedom, such workers would also have more opportunity and ability to do personal activities at work, and hence, conduct loafing activities (Andreassen et al., 2014; Garrett & Danziger, 2008b) .

a.   DEFINITION

Job autonomy can be conceptualised as the degree of freedom, independence, and discretion an individual is entitled to in scheduling their work and determining how the work will be performed (Breaugh, 1985; Hackman & Oldham, 1975, 1976, 1980).

b.   AUTONOMY'S FACETS

According to Breaugh (1985), autonomy has three interrelated dimensions: work method autonomy, work scheduling autonomy, and work criteria autonomy. Work method autonomy is the extent to which workers feel they can make decisions on the procedures they utilise in doing their work. Work scheduling autonomy is the degree of control the employees are entitled to in scheduling, sequencing, and timing their work activities. Work criteria autonomy is the amount of freedom in modifying or choosing the criteria used for evaluating their performance.

Although not identical to Breaugh, other scholars have presented similar concepts to his. Morgeson and Humphrey (2006) concluded that autonomy comprises of three interconnected facets centred on freedom in work scheduling, decision making, and work methods, whereas Hackman and Oldham (1980) was focused only on the decision-making and work methods. Furthermore, Anand and Chhajed (2012)

emphasise the decision-making aspect of autonomy while the Nova-Weba survey highlights work scheduling and work methods components when discussing autonomy (Schouteten & Benders, 2004).

Additionally, (Beyerlein, Beyerlein, Richardson-Ellison, and Teams (1993)) categorised the facets of autonomy based on the three subjects it is linked to. First, they concluded that autonomy can be the extent of independence one has in relation to the people in the organisation (e.g. recruit or fire team members, determine compensation, and conduct peer evaluation). They also highlight the level of freedom in planning (e.g. setting goals, budgeting, and scheduling) and the degree of liberty in deciding the work processes (e.g. develop system, tools to utilise, and testing procedures) as other aspects.

2.7   CHAPTER SUMMARY

This chapter has reviewed the key concepts in the literature that form the foundation of this thesis. Based on this review, the extant study was able to identify the potential for an employees' desire to achieve work-life balance to be linked with their loafing behaviour. Furthermore, studies also found there are two distinct types of loafing: physical loafing and cyber-loafing. By taking into account the SNS phenomenon, literature has shown that SNS loafing can be classified as a type of cyber-loafing. Moreover, the literature recognises that there are connections between loafing behaviour, job productivity, job satisfaction, and autonomy. However, despite numerous empirical studies conducted in these four areas, research has evaluated the interconnections between the components separately, tending to either assess loafing behaviour with job productivity, loafing behaviour with job satisfaction, or job satisfaction with job productivity. Moreover, in regards to the loafing behaviour itself, these studies largely fail to collectively measure the combination of physical loafing, cyber-loafing, and SNS loafing's effects on job productivity and job satisfaction.

Therefore, there is an opportunity to study the effects of these types of loafing on job productivity and satisfaction, while taking into account autonomy. The penetration of Internet and SNS usage into people's daily lives as well as in their work environment further re-in forces the significance of filling this gap in the literature so both academics and management practitioners have better understanding of this phenomenon.

In accordance to the literature review and the identified gap, it would be of interest to evaluate the following within the broader relationships between loafing, job satisfaction and job productivity:

1. Does the use of SNS by employees during office hours lead to lower job productivity and/or better job satisfaction?

2. Does cyber-loafing other than SNS usage at work by employees lead to better job productivity and/or lower job satisfaction?

3. Does loafing physically at work lead to lower job productivity and/or better job satisfaction?

4. Does the time of day that loafing occurs yield different results with respect to job productivity and satisfaction?

5. Is there any relationship between job productivity and job satisfaction for these employees?

6. Does autonomy have any impact on loafing behaviour, job productivity, and/or job satisfaction?

Having established the relevant areas of literature and identified the research problem as well as objectives of the current research, the next chapter discusses in more detail the possible relationships between these disciplines. The conceptual framework for this study is also presented.

Chapter Three:

Theoretical Background and Hypotheses Development

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hypothesis / *n.* (*pl.* –theses/):

proposition or supposition made as the basis for reasoning or investigation

(Oxford-Dictionary, n.d.)

3.1   INTRODUCTION

The literature review identified a lack of investigation regarding the impacts of physical, cyber, and SNS loafing in influencing employees' satisfaction and productivity, and how autonomy affected these relationships. Drawing on this, a conceptual framework is developed as well as hypotheses anchored in the framework and the literature review.

3.2   JOB SATISFACTION AND JOB PRODUCTIVITY

Scholarly interest in the relationship between employee satisfaction and their productivity, (or also labelled performance in several studies), go back as far as 1930s (Judge et al., 2001). Since then, an abundance of studies have revealed that there is a strong link between the two variables, although causality is less clear. Grounded from the premise that "people who evaluate an attitude/object favourably tend to engage in behaviours that foster or support it, and people who evaluate an attitude object unfavourably tend to engage in behaviours that hinder or oppose it" (Eagly & Chaiken, 1993, p. 12), it is logical to posit that employees who feel satisfied with their occupation tend to work better. This suggestion also supports Strauss (1968, p. 264), who postulates "higher morale would lead to improved productivity".

As has already been discovered by existing literature, it was found that, employees who are allowed to loaf may often be happier and since their morale increases, so does their productivity (Lim & Chen, 2012; Messarra et al., 2011; Stanton, 2002). In light of this reasoning, the researcher predicts the following hypothesis:

> *H1: The employee's job satisfaction has a positive relationship with job productivity*
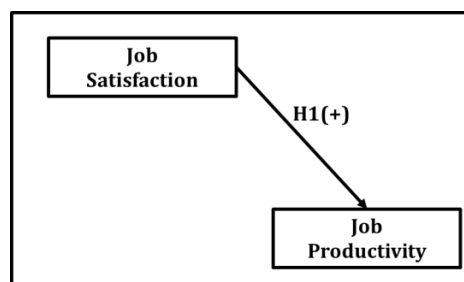
Figure 3.1. The Proposed Relationship between Job Satisfaction and Job Productivity

3.3   LOAFING

3.3.1 LOAFING AND JOB PRODUCTIVITY

As previously discussed, research examining the relationship between loafing and job productivity has been inconclusive. Several researchers agree that loafing generates a negative impact for the organisation since the time lost could affect individuals' productivity, which leads to damage to the company's bottom line (Bock & Ho, 2009; Dixon, 2005; Liberman et al., 2011; Lim, 2002; Liu & Kuo, 2007; Sullivan, Baird, & Donn, 2013; Weatherbee, 2010). Moreover, another study stated that the time spent on cyber-loafing activities could lead to missed deadlines, slowed computer time, loss of goodwill, and generation of poor customer service (Messarra et al., 2011).

However, other researchers have found contrasting arguments. Some studies argued that the use of SNS can bring a positive benefit to the organisation. AT&T (2008) reported that 65% of employees believed that the use of SNS helped them become more productive. Furthermore, Coker (2011) revealed that the ability to access SNS while at work gives workers a short break which enables concentration levels to be restored and thus, help the workers become more productive. A similar opinion is echoed by Lim and Chen (2012) which argued that cyber-loafing activities could actually help workers perform better.

Hence, based on these findings, the researcher hypothesises that employees' higher engagement in loafing behaviour will result in lower job productivity, although it was recognised that there could be a positive impact only to a certain threshold according to one previous study:

> ***H2: The employee's loafing behaviours has a negative relationship with job productivity***

3.3.2 LOAFING AND JOB SATISFACTION

Given the evidence presented in Chapter Two, it was acknowledged that loafing activities have the inclination to improve employees' morale either through providing pleasurable mental break, giving a sense of trust from the company, and/or a tool to achieve work-life balance (Anandarajan et al., 2006; Lim & Chen, 2012; Malik et al., 2010; Messarra et al., 2011; Moqbel et al., 2013; Stanton, 2002). Employees with high

morale have the tendency to feel more satisfied with their occupation, and vice versa (Douthitt & Aiello, 2001; Messarra et al., 2011; Urbaczewski & Jessup, 2002). Based on the arguments above, the following relationship is proposed:

H3: The employee's loafing behaviour has a positive relationship with job satisfaction
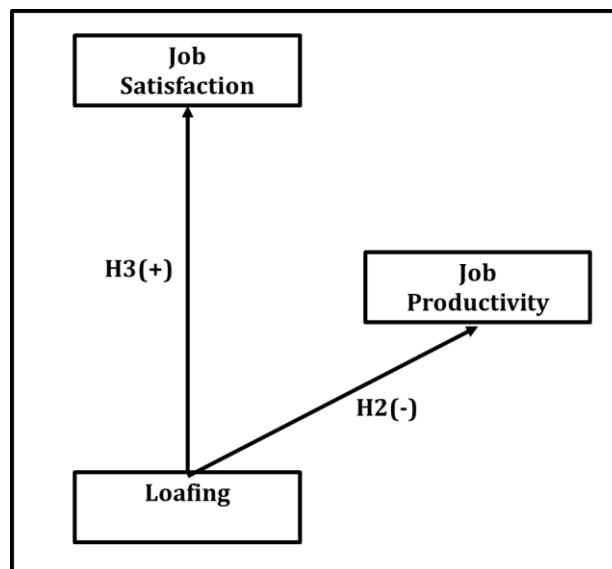
Figure 3.2. The Proposed Relationship between Loafing and Job Satisfaction as well as Job Productivity

3.4 AUTONOMY

Scholars have long recognised the importance of autonomy as a potential factor affecting employees' satisfaction and productivity (Breaugh, 1985; Cummings & Molloy, 1977; Hackman & Oldham, 1976). The review of the existing literature showed that several researchers believed autonomy has a positive connection with employees' satisfaction because it gives them a sense of freedom and trustworthiness in conducting their work task (Littman-Ovadia et al., 2013; Loher et al., 1985). Furthermore, another study revealed that there is a strong link between employees' level of autonomy and their productivity (Stanton, 2002). Lack of autonomy may create higher productivity in the short-term but not for in a long term (Stanton, 2002). Additionally, Garrett and

Danziger (2008b) postulated that greater autonomy may provide employees with a higher chance to loaf. Based on the studies noted above, the researcher offers the following hypotheses:

H4a: The employee's level of autonomy has a positive relationship with job satisfaction

H4b: The employee's level of autonomy has a positive relationship with productivity

H4c: The employee's level of autonomy has a positive relationship with loafing behaviour
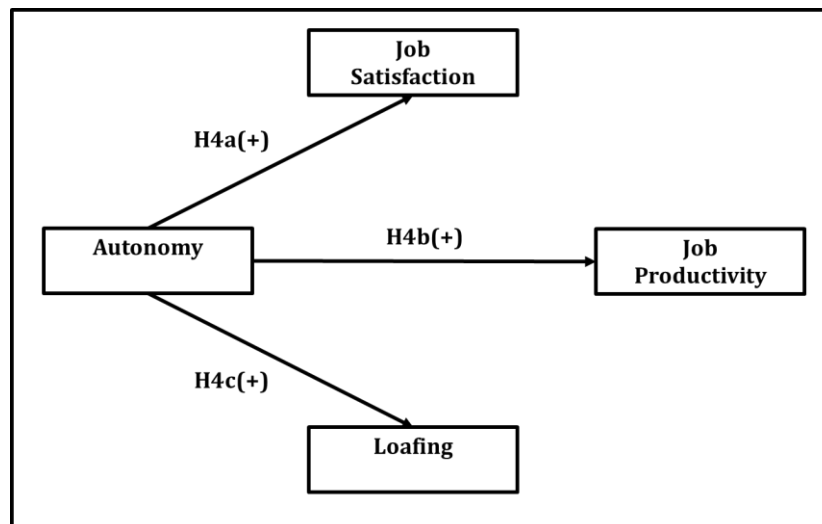
Figure 3.3. The Proposed Relationship between Autonomy and Other Constructs

3.5   CHAPTER SUMMARY

Based on the theoretical background, six hypotheses were developed as a foundation for this thesis. Additionally, a research framework has been formed to guide the present study in empirically testing the hypothesised relationships. The graphical summary of the research framework is presented in Figure 3.4. The next chapter explains the methodology and research approach used to test this research framework in a greater detail.
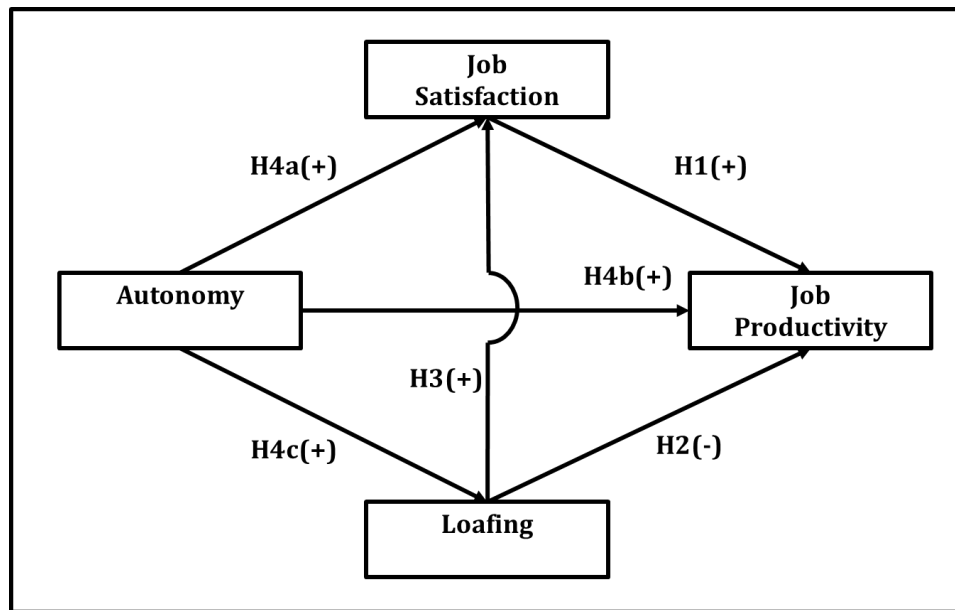
Figure 3.4. Research Framework Model

Chapter Four: Methodology

"But if no one checked Facebook at work, would our GDP really jump by that much?...If people weren't checking Twitter, they might be out smoking...They'd find reasons to run out to their car on errands. They'd make thinly disguised work calls that are more for gossiping with co-workers than anything else. Workplace distraction did not begin with social media. It will not end when the next thing comes along, either"

– <u>Laura Vanderkam,</u> time management and productivity books' author

<u>(Vanderkam, 2012, para. 2)</u>

4.1 INTRODUCTION

This chapter outlines the research methodology used to operationalise the research framework and hypotheses developed in the previous chapter. First, it discusses the research paradigm selection. Next, it explains the chosen methodology, followed by a description of the research methods. Last, it presents the survey and data collection methods. The outline of this chapter is presented in Figure 4.1.
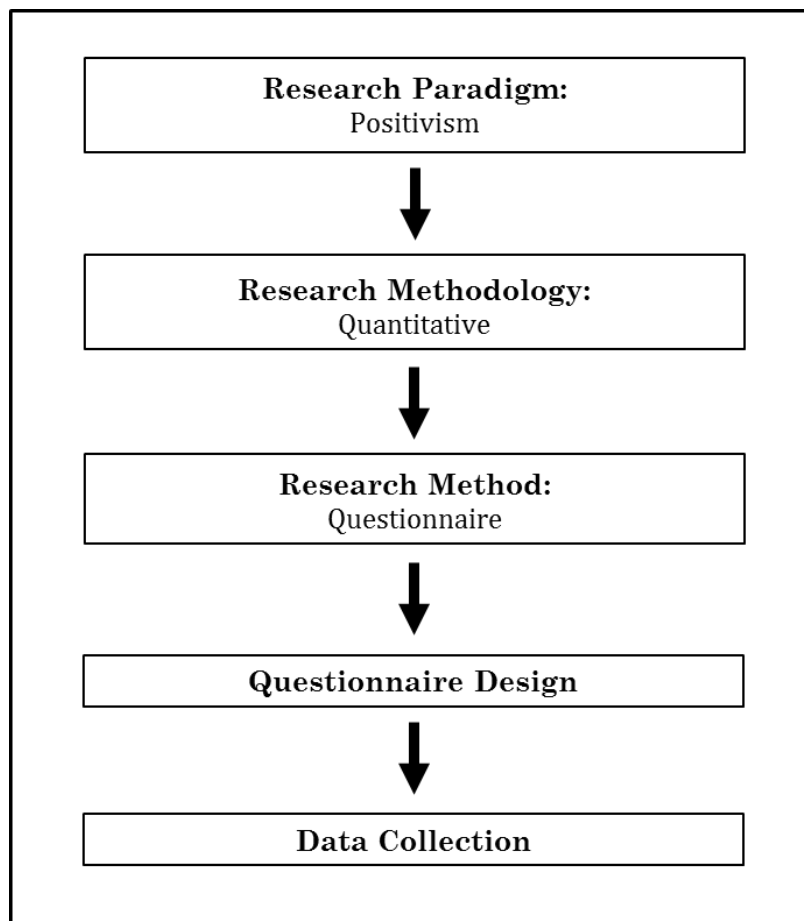
Figure 4.1. Outline of Chapter Four

4.2   RESEARCH PARADIGM

A paradigm can be described as the underlying set of basic beliefs that will guide the way researchers view the world they investigate. It also affects the manner in which researchers interpret their frameworks (Burrell & Morgan, 1979; Guba & Lincoln, 1994). The paradigm adopted for a study separates researchers from one another and makes them more inclined to utilise different methodologies.

A paradigm can be categorised by the way the researcher respond to the ontological, epistemological, and methodological questions (Guba & Lincoln, 1994). The approach undertaken for this study will be justified based on those three questions.

The ontological question asks 'what is the nature of reality' (Guba & Lincoln, 1994). The positivism spectrum views that in general true knowledge exists and can be acquired 'out there' in the world (Burrell & Morgan, 1979; Guba & Lincoln, 1994). In contrast, constructivists assume that knowledge depends on each individual's perspectives based on his/her interactions with reality, and thus, it is the product of one's mind (Burrell & Morgan, 1979; Guba & Lincoln, 1994). In exploring the phenomenon concerning employees' loafing actions at work, the researcher believes that such acts do exist in reality and can be learned/measured as well as understood through employees' observable and tangible daily activities. However, the researcher also acknowledges that objectivity cannot be achieved fully due to the necessity of utilising employees' self-assessments in observing and reporting their productivity, satisfaction, and autonomy. Notwithstanding this caveat, the present study adopts a positivist's viewpoint instead of constructivism because of a methodological desire to understand the extent to which loafing occurs broadly for a particular sub-population of employees as well as its generalised relationships with other concepts (job productivity, satisfaction, autonomy).

Epistemologically, in answering the question of what the relationship between the inquirer and the knowable should be, the researcher considered several researchers' viewpoint on objectivity. Guba, Lincoln, and Creswell believe that objectivity is important but cannot be achieved in its absolute form (Creswell, 2014; Guba, 1990; Guba & Lincoln, 1994). Therefore, in order to attain this to its greatest extent, the best thing the investigator can do is be as neutral as possible in evaluating a phenomenon (Creswell, 2014; Guba, 1990; Guba & Lincoln, 1994). Given this consideration, the researcher decided that remaining distant from the subject of the research, so that s/he

neither affects nor is affected by them, would be beneficial. Consistent with this choice, the researcher, again, takes a positivist stance.

Associated with ontological and epistemological questions, the methodological question asks the way the inquirer will investigate and obtain the 'knowledge' (Burrell & Morgan, 1979; Guba & Lincoln, 1994). The answer to this question may perhaps be limited by the answers to the previous two questions (Guba & Lincoln, 1994). As elucidated by the ontological and epistemological positions, this thesis leans towards a positivistic perspective. Additionally, it was recognised that most of the concepts adopted in the extant study have been studied previously through a positivism position, consistent with this perspective enabling the generalisation of findings for broad knowledge (Cavana, Delahaye, & Sekaran, 2001). Given these situations and the importance for this thesis to harness the benefits of positivism, consequently, the researcher took methodology quantitative measurement approach in investigating the employees' loafing activities at work.

Based on the various elements considered above, the overall research paradigm chosen for this scientific endeavour is consistent with positivism.

4.3   RESEARCH METHODOLOGY

Generally, positivist studies are more likely to employ quantitative methodologies to collect data and use statistical analysis to test the hypotheses because it enables researchers to maintain their scientific objectivity (Cavana et al., 2001; Lancaster, 2005; O'Leary, 2010). This choice is predictable because within the quantitative tradition, "there is an underlying belief in the power of numbers and their ability to represent the world with both vigour and accuracy" (O'Leary, 2010, p. 106), not only in natural or formal sciences field, but also in social sciences (Cavana et al., 2001; O'Leary, 2010).

Furthermore, Creswell (2014) suggests that the adoption of research methods should be consistent with the way research questions and objectives are phrased. If it asks 'do' or 'does' instead of the 'how' or 'what' then quantitative research methods are more appropriate. As the present study asks - "Do the type of loafing activities undertaken by employees at work and the time of occurrence of loafing affect their job

productivity and satisfaction?"- it seems appropriate to adopt a quantitative research approach.

The other consideration in utilising quantitative approach for this thesis was its ability to be comparable to previously established theories (Cavana et al., 2001; Creswell, 2014). The fundamental ideas of the existing study are all based on previous well-known theories within the management literature as explained in the literature review. To build on that, the researcher identified many published studies that investigated the constructs of interest separately and have developed instruments to analyse and understand the constructs better. To conduct this thesis, the researcher utilises the selected well-established measurements that fit the context of this thesis, hence a quantitative approach is required.

Moreover, the present study aims to evaluate the potential relationships between the constructs. This requirement can also be accommodated by quantitative research methods (Creswell, 2014). In regard to the above prerequisites, a quantitative approach was deemed appropriate to be adopted as the main methodology for this thesis.

4.4 RESEARCH METHOD

Quantitative research can be conducted through surveys, questionnaires, personality tests, and standardised research instruments (Burrell & Morgan, 1979; Cavana et al., 2001; Creswell, 2014; O'Leary, 2010).

As a tool to achieve the main objective of the study, the research method's selection should be based on the requirements of the particular investigation. Considering the desire to evaluate the relationships between constructs of interest and also the impracticality to get responses from employees on loafing and match those with their supervisors' assessments on productivity, it was essential to collect measurable data from employees themselves to test the proposed hypotheses, and to capture a large number of responses. Thus, the researcher selected an online questionnaire as the primary data collection method.

Following this decision, the subsequent sections describe the development of the online questionnaire in a greater detail. An overview of the survey design, sampling technique and the selection of a target sample frame are presented. Afterward, the methods of data collection and pilot test are explained. Human ethics approval is also covered.

4.5 QUESTIONNAIRE DESIGN

4.5.1 DEVELOPMENT OF THE MAIN CONSTRUCTS' MEASUREMENT

As suggested by many scholars, to ensure the validity and reliability of the measurement, the present study employed scale items from well-established studies as much as possible to reduce potential for bias. Minor adjustments in wording were applied where necessary to fit the context of the study, since an appropriate description of the constructs is essential for valid measurement (Ahire, Golhar, & Waller, 1996; Churchill, 1979; Nielsen, 2014).

For the job satisfaction, job productivity, and autonomy constructs, the researcher was able to follow this approach closely. However, there was no established measurement instrument for loafing activities that suited this thesis, and so the researcher adapted several measurements and tailored them to meet this study's needs as will be explained.

Additionally, there has been some debate over the optimal number of points for a Likert scale. "Too few categories result in too coarse a scale and loss of much of the rater's discriminative powers. Conversely, too fine a scale may go beyond the raters' limited powers of discrimination" (Jacoby & Matell, 1971, pp. 495-496). Recent scholars tend to suggest the use of as wide a scale as possible to collect more precise answers (Allen & Seaman, 2007). Overall, a seven-point rating scale was considered to be ideal for this study since it has been shown to have the highest rank in scale reliability (Allen & Seaman, 2007; Green & Rao, 1970; Jacoby & Matell, 1971).

Also, the Cronbach's alphas for the items were adopted are reported to provide reliability indications of the selected items. Cronbach's alpha is a reliability test to evaluate the internal consistency of a construct or a dimension (Cavana et al., 2001). Values above 0.7 are typically assumed to demonstrate acceptable reliability (Cavana et al., 2001).

The following is an explanation of job productivity, job satisfaction, autonomy, and loafing activities assessment tools' development.

a.   <u>Job Productivity</u>

Referring back to the definition of employee productivity[3], it was identified that there are two components required to take into consideration in its evaluation: inputs and outputs (Schreyer, 2001; Syverson, 2011). However, unlike calculating blue-collar productivity, white-collar productivity measurement is more difficult and complicated since the inputs and outputs are often intangible and not easily observable (Ramírez & Nembhard, 2004; Schroeder et al., 1986). According to Sullivan et al. (2013, pp.8-9), defining and measuring productivity in the context of the office is highly problematic given that many aspects of office productivity are not readily quantifiable.

Schreyer (2001) identified the inputs of workers' evaluations as consisting of the amount of time, the type of task, and the number of people in employment. While the last one is easy to identify, the first two can be vague in the white-collar workers' situation. Unlike manual workers, white-collar workers typically have no production standard times plus their tasks are not fixed and can be performed in various ways depending on individuals (Ramírez & Nembhard, 2004). Moreover, most white-collars workers use their knowledge to do their work tasks and this knowledge is challenging to quantify.

Furthermore, outputs are also often difficult to define and are not quantifiable, and thus cannot be directly measured by traditional methods of manufacturing workers (Ray & Sahu, 1989). Additionally, some outputs may not be apparent for months, or in the case of some research and development projects, years (Ray & Sahu, 1989). Moreover, white-collar workers normally are more concerned with outcomes rather than outputs. For example, in the health care industry, *outcomes* in terms of quality of care, community health or recovery of patients are more important than *output* factors such as the number of pills dispensed, operations performed, or patients visited (Schroeder et al., 1986). In other situations, even the outcomes are hard to define (e.g. customer satisfaction or managerial effectiveness) (Schroeder et al., 1986). These difficulties are worsened by management's tendency to measure activities rather than results (Ray & Sahu, 1989).

Even with the complications above, there are many scholars that have examined this problem and have developed methods to measure what is believed to be unmeasurable (Ray & Sahu, 1989; Schroeder et al., 1986). Although varied, the approach

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[3] Refer to Chapter Two.

usually includes: work tasks; daily activities; quantity (how much gets done); quality (how well it gets done); timeline (when it gets done); multiple priorities (how many things can be done at once); the costs (to get the outcomes); the profits produced; the innovations and creativity involved; absenteeism; and autonomy (Drucker, 1999; Ramírez & Nembhard, 2004; Ray & Sahu, 1989; Schroeder et al., 1986). Due to the nature of these methods, most of them are job-specific, thus, there is an understanding that there is no one universal and practical method that covers all of these dimensions across all different industries (Drucker, 1999; Ramírez & Nembhard, 2004; Ray & Sahu, 1989; Schroeder et al., 1986). Therefore, management or researchers should select the one that is most appropriate to their condition. The one selected for the present study is Koopmans et al.'s (2013) Individual Work Performance Questionnaire (IWPQ).

All items in this section were adapted from IWPQ since it provides a general survey that can be used across a different range of jobs (white, pink, or blue-collar) but at the same time also provides specific questions to white-collar workers. This type of measurement is useful because not only does it provide the instrument to assess the tangible output suitable for manufacturing workers, but also the less tangible outputs and outcomes of white-collar workers (Drucker, 1999; Ramírez & Nembhard, 2004; Ray & Sahu, 1989; Schroeder et al., 1986).

Since the present study aims to be able to harness as varied white-collar industries as possible, this measurement tool is deemed appropriate. Moreover, although the IWPQ measures performance broadly, it is still relevant to measure job productivity in this study because performance covers productivity[4] (Pekuri et al., 2011). So, by analysing employees' job performance, it also examines their productivity.

The IWPQ consists of three dimensions: task performance, contextual performance, and counter-productivity. The task performance scale is comprised of indicators that measure work planning and organisation, results, task prioritisation, and work efficiency. The contextual performance scale included criteria that measure whether workers take initiative, take on challenging work tasks, keep job knowledge and skills up to date, and solve problems. The counterproductive scale is made up of indicators that measure excessive negativity in attitudes and harmful actions to the organisation.

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[4] Refer to Chapter Two

The items chosen for the present study were taken from the final version of IWPQ's task performance and contextual performance dimensions (Koopmans et al., 2013). Additionally, one particular item "I had trouble setting priorities in my work" was taken from the earlier version of IWPQ. This item was in the previous version but later on it was deleted due to its misfit. However, the researcher considers this particular item to be potentially important because of the relevancy between the ability to set priorities, the decision to loaf, and the employee's productivity level (Andreassen et al., 2014; Breaugh, 1985). This item was reverse coded so that a low score meant lower work performance and a high score meant higher work performance. The eighteen items of Job Productivity utilised here are shown in Table 4.1.

Table 4.1. Job Productivity Items

Construct	Dimensions	Items	Sources	Scale respond anchors	Codes
Job productivity (JP)	Task Performance	I managed to plan my work so that it was done on time	(Koopmans et al., 2013) **Cronbach's α was not reported**	"Never" to "Every time"	JP1
		I kept in mind the results that I had to achieve in my work			JP2
		I had trouble setting priorities in my work (R)[5]			JP3
		I was able to separate main issues from side issues at work			JP4
		I was able to perform my work well with minimal time and effort			JP5
		I was able to meet my appointments			JP6
		Collaboration with others went well			JP7
		Communication with others led to the desired result			JP8
	Contextual performance	I took the initiative when something had to be organised	(Koopmans et al., 2013) **Cronbach's α was not reported**	"Never" to "Every time"	JP9
		I started new tasks myself when my old ones were finished			JP10
		I was open to criticism of my work			JP11
		I tried to learn from the feedback I got from others on my work			JP12
		I took on challenging work tasks when available			JP13
		I worked at keeping my job knowledge up-to-date			JP14
		I worked at keeping my job skills up-to-date			JP15
		I was able to cope well with difficult situations and setbacks at work			JP16
		I recovered fast, after difficult situations or setbacks at work			JP17
		I came up with creative solutions to new problems			JP18

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[5] R= Reversed item

b.   <u>**Job Satisfaction**</u>

Job satisfaction (or dissatisfaction) can be evaluated by assessing one's attitude and feelings toward their jobs in general (Brayfield & Rothe, 1951; Fox, 2007; Langford, 2009; Locke, 1969; Sullivan et al., 2013). As discussed previously in the literature review, job satisfaction has many dimensions and many scholars have created well-established job satisfaction measurements that include different facets of job satisfaction. To name a few, Hackman and Oldham (1980) developed the Job Diagnostic Survey that divides work satisfaction into two main dimensions: general job satisfaction and growth satisfaction. Smith et al. (1969) created the Job Descriptive Index (JDI) which uses five dimensions of job satisfaction: satisfaction with supervision, co-workers, pay, promotional opportunities, and the work itself to measure the overall satisfaction. Moreover, Brayfield and Rothe (1951) formed the Index of Job Satisfaction (IJS) to capture the individuals' overall attitudes toward their occupation. Lastly, Spector (1985) developed Job Satisfaction Survey (JSS) which considers nine aspects of job satisfaction: pay, promotion, supervision, benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication. Since the present study focuses more on the work-life balance facet of job satisfaction, items related to that dimension and the overall satisfaction dimension were selected.

Five items were taken from Moqbel et al.'s (2013) study that examined the relationships between employees' SNS and their level of satisfaction, organisational commitment, and performance. These items were selected due to the closeness between Moqbel et al.'s (2013) study and this thesis. Three items were adopted from Brayfield & Rothe's (1951) IJS because they cover the aspect of overall job satisfaction. One of the items, "it seems that my friends are more interested in their jobs", was reverse coded so that a high score meant lower satisfaction feeling about one's job and a low score meant higher satisfaction. The last five items were taken from Langford's (2009) measurements on work practices and outcomes. These items were selected since they comprise the aspect of work-life balance on job satisfaction dimension as well as the overall job satisfaction facet. A total of thirteen items were selected for job satisfaction construct as illustrated in Table 4.2.

Table 4.2. Job Satisfaction Items

Construct	Dimensions	Items	Sources	Scale respond anchors	Codes
Job Satisfaction (JS)	Overall Satisfaction	I am very satisfied with my current job	(Moqbel et al., 2013) **Cronbach's α= 0.932**	"Strongly Disagree" to "Strongly Agree"	JS1
		My present job gives me internal satisfaction			JS2
		My job gives me a sense of fulfilment			JS3
		I am very pleased with my current job			JS4
		I will recommend this job to a friend if it is advertised/announced			JS5
	Overall Satisfaction	My job is usually interesting enough to keep me from getting bored	(Brayfield & Rothe, 1951) **Cronbach's α=0.87**		JS6
		It seems that my friends are more interested in their jobs (R)[6]			JS7
		I like my job better than the average worker does			JS8
	Work-life balance satisfaction	I maintain a good balance between work and other aspects of my life	(Langford, 2009) **Cronbach's α= 0.88**		JS9
		I am able to stay involved in non-work interests and activities			JS10
		I have a social life outside of work			JS11
		I am able to meet my family responsibilities while still doing what is expected of me at work			JS12
	Overall Satisfaction	Overall, I am satisfied with my job			JS13

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[6] R= Reversed items

c.   <u>Autonomy</u>

In the context of employees' behaviour, autonomy is measured by the employee's impression on their level of autonomy instead of the actual amount of autonomy employees have in their work because this perception is what will eventually affect their reaction towards their jobs (Breaugh, 1985; Hackman & Lawler, 1971). The measurement itself may comprise of different variations of autonomy's facets.

Grounded from the review on the related works provided in Chapter Two, it was acknowledged that job position may hold a different level of autonomy which determines employee's degree of freedom in scheduling activities in the workplace. The autonomy's work scheduling facet is an important element in understanding employee's time management, not only in conducting their work tasks but also in carrying out loafing activities. Therefore, the present study adopted three autonomy work scheduling items from Morgeson and Humphrey's (2006) work characteristics study. Additionally, three items on autonomy in general, as a part of job characteristics were taken from Idaszak and Drasgow's (1987) revision on Job Diagnostic Survey. The items are listed below.

Table 4.3. Autonomy Items

Construct	Dimensions	Items	Sources	Scale respond anchors	Codes
Autonomy (A)	Work Scheduling Autonomy	The job allows me to make my own decisions about how to schedule my work	(Morgeson & Humphrey, 2006) **Cronbach's α= 0.94**	"Strongly Disagree" to "Strongly Agree"	A1
		The job allows me to decide on the order in which things are done on the job			A2
		The job allows me to plan how I do my work			A3
	Autonomy in general	The job gives me a chance to use my personal initiative of judgement in carrying out the work	(Idaszak & Drasgow, 1987) **Cronbach's α= 0.8**	"Strongly Disagree" to "Strongly Agree"	A4
		The job gives me considerable opportunity for independence and freedom in how I do the work			A5
		How much autonomy is there in your job?			A6

d.   <u>Loafing Activities</u>

As previously mentioned, three categories of loafing activities will be examined in this thesis: SNS loafing (SNSL), other types of cyber-loafing apart from SNS usage (OCL), and physical loafing (PL). Unfortunately, there were no established measurements that could be adopted from the literature to measure these constructs. Therefore, a customised instrument was created by adapting elements drawn from the literature.

For each category, two main elements were looked at: (1) the type of loafing activities, and (2) the usage patterns the participants normally undertook at their workplaces.

1.   <u>Activities</u>

Based on the literature review, the researcher was able to compile a list of activities associated with each category and used this as a foundation in the present study's loafing construct analysis. In the SNSL category, any form of activity being carried out in the participants' SNS accounts when they were logged-in, whether it was active (i.e. posting something) or passive (i.e. reading the feed), was included in the investigation (Boyd & Ellison, 2007). For OCL, activities included visiting news websites, downloading non-work related information, online shopping, online gaming, corresponding with non-work related matters via email, online banking, and visiting other non-work related websites such as sports, investment, and entertainment websites (Coker, 2013; Lim, 2002; Lim & Chen, 2012). The PL category included having social conversations with co-workers, receiving non-work related visits from friends and/or families, daydreaming, making and/or receiving non-work-related phone calls, running non-work-related errands, taking short breaks in between work tasks, and using cell phone applications (Liberman et al., 2011).

2.   <u>The Usage Patterns</u>

To investigate the extent to which each participant was actively engaged in the abovementioned activities, a measurement based on Ellison et al.'s (2007) "Facebook Intensity Scale" was created. This scale has three indicators: Frequency, Regularity, and Duration. In the frequency section, participants were asked about the frequency of engaging in each activity in general. Six-point scales were used with a scale response anchor from "never" to "daily". Furthermore, this survey was programmed to use piping,

so that if a respondent indicated they did do a certain activity in the frequency section, they proceed to the regularity and duration sections, which asked further questions relating the intensity of performing that particular activity. Participants were asked how often they did the activity within a day and the average duration spent doing the activity. In this section, the day was divided into three parts: the first part of the working day, breaks (if any), and the second part of the working day. Five-point scales were used for the regularity indicator with scale response anchors from "not at all" to "frequently" while the duration indicator used six-point scales from "0 minutes" to "more than 10 minutes". All scale response anchor choices for regularity were based on Bass, Cascio, and O'Connor's (1974) work which allowed anchors to be chosen that were relatively equally spaced across the scale. These detail responses were requested so that the researcher could better comprehend any loafing pattern. If the respondents selected "never" in any of the activity choices, they would skip that particular activity's regularity and duration block of questions automatically. This was designed to reduce the participant's effort.

The six and five-point scale were chosen in the usage's pattern questions because a seven-point scale broke the time interval very finely which may cause difficulty for the respondents to discriminate between choices (Nunnally, 1978). Moreover, since Jacoby and Matell (1971) found that a three-point range scale would be reliable and valid enough for the social science study, a five-point scale can be considered adequate. Additionally, a rating scale can be truncated into an even number of points to remove the "neutral" option if this is appropriate for the study (Allen & Seaman, 2007).

4.5.2 QUESTIONNAIRE'S OUTLINE

The questionnaire's content was divided into three main sections:

a. <u>Screening section</u>

Filter questions were used to eliminate respondents who did not fit the target sample profile for this study. Prior to entering the main body, three filter questions were asked to ensure the eligibility of the respondents. The questions were whether the respondents had an SNS account, were working in an office setting environment, and were accessing SNS during work hours. The first and third questions sought to ensure that loafing activities using SNS were an option for each respondent, whereas the second

aimed to only include participants from similar white-collar settings. In successfully passing the screening section, the respondents entered the main body of the questionnaire.

b.   <u>Main body</u>

In the main section, questions related to the investigation were asked. The first four sub-sections consisted of the main construct measurements developed previously regarding job satisfaction, job productivity, autonomy, and loafing activities. Additionally, several other questions were added so that participants work settings could be analysed. In the SNSL section, more specific questions such as the type of SNS the respondents utilise, the device they tend to use, and the work policies regarding SNS access were asked to give a better general understanding about the respondents' SNSL situations. Furthermore, in the OCL section, a question about the device the respondents normally use when loafing was also asked. An additional "N/A" option was added to accommodate the respondents who never engaged in certain loafing activities. The last sub-section of the main body contained demographic questions.

Also, to ensure respondents understood what each sub-section related to while completing the questions, the researcher provided a note at the beginning of each sub-section reminding the respondents to keep referring to their job situation over the past three months when answering the questions. This recall period was chosen so that typical activity for comparable time periods was being assessed for each respondent.

c.   <u>Concluding page</u>

On the concluding screen, respondents were thanked for their participation and were given an opportunity to write feedback about the questionnaire.

4.6   DATA COLLECTION

4.6.1 SAMPLING

The context of the present study was rather specific about loafing activities at work for white-collar workers. Consequently, the study could not use a random sample from a broad working population as the respondents may then include blue-collar workers, and thus, do not fit the desired sample. Based on this circumstance, a sampling technique that does not involve a random selection was necessary (Cavana et al., 2001), and a non-probability purposive sampling approach was deemed to be appropriate because this sampling is "confined to specific types of people who can provide the desired information" (Cavana et al., 2001, p. 263).

Furthermore, to ensure the study had an appropriate sample, several pre-determined criteria were set to help in recruiting suitable respondents. To qualify as respondents, the individuals needed to be white collar workers who were physically at work during fixed working hours (e.g. 9am-5pm) during workdays and performing work-related tasks in an office setting (e.g. provided computers in workstations) with easy access to the Internet. These two criteria are important to set a baseline in making comparisons in subsequent analysis. Should the respondents have an overly wide-ranging degree of flexibility and/or autonomy, it would be hard to make comparisons from one to another because the combinations of loafing behaviour could be extremely diverse. Also, it was necessary for individuals to have Internet access and be able to check their SNS accounts while at work. As SNS debatably have similar features and characteristics (Beer, 2008), respondents did not need to be members of any specific SNS. A final requirement was that the respondents had to live in New Zealand to ensure similar work contexts.

The researcher also asked the sample participants to refer the questionnaire on to other people who they thought may fit the criteria and would be willing to respond. The reason for utilising such snowball sampling was to generate a larger sample and potentially collect a more diverse pool of participants.

4.6.2 Data Collection Methods

Data were gathered through the use of Internet survey software to enhance accessibility and convenience. An online questionnaire can be very efficient in terms of cost and speed (Cavana et al., 2001). Furthermore, because of the nature of Internet as the medium, the questionnaire can be conducted without a face-to-face connection, and thus, protects the participants' anonymity (Creswell, 2014; Hamersveld & Bont, 2007; Marquis, Marquis, & Polich, 1986; Sale, Lohfeld, & Brazil, 2002).

However, the researcher recognises the shortcomings of this method particularly for assessing a construct like job productivity. Since the questionnaires would be self-reported ones, it may be less objective than managerial ratings. A study revealed that managerial ratings on job performance have 0.10 points higher in its correlation to an objective measure than self-ratings (Jaramillo, Carrillat, & Locander, 2005). Furthermore, people have the tendency to exhibit higher tolerance on themselves and are more likely to present themselves in a desirable light when it comes to their performance (van der Heijden & Nijhof, 2004). Thus, self-ratings on that matter are normally one-half to one standard deviation higher than managerial ratings (van der Heijden & Nijhof, 2004).

Self-report questionnaires were still chosen due to several reasons. First, there is no guarantee that the managers will generate more objective assessments (Dalal, 2005). Second, the target of this study is white-collar workers. Due to the nature of their work, direct measurements of their objectively quantifiable outcomes are hard to obtain. Moreover, the employees themselves are often the ones who have the best opportunity to observe their own behaviours relative to their supervisors (van der Heijden & Nijhof, 2004). Third, as the study investigates loafing behaviour, which can be regarded as a counterproductive activity, it is highly likely employees engage in these actions secretively, so they are unobservable by others. Finally, the study would have been greatly complicated if it had attempted to match employee and manager responses. This may also have affected the sample size and response rate. Therefore, the employees themselves are more viable in judging their own loafing behaviour (Berry, Carpenter, & Barratt, 2012).

The online survey was created using the Qualtrics online research software tools to generate a survey link which later was made accessible to the respondents. To

enhance response rate and accuracy, the introduction, purpose of the study, instructions, and guidance on how to fill the questionnaire were also provided in the invitation, information sheet, as well as the questionnaire site itself.

The procedure of the survey distribution was as follows. First, the researcher selected prospective participants from the researcher's personal contact database, who based on the researcher's judgement would fit the criteria determined earlier. Subsequently, the researcher sent invitations to these individuals utilising both email and Facebook as the main tools. In the invitation, the researcher attached the information sheet[7].

The information sheet explained the purpose of the study, the information concerning the ethical approval of the research[8] and highlighted anonymity of the respondents, the inclusion criteria requirements for respondents, the amount of time required to complete the survey, the way the survey data would be used, and the link to the questionnaire. The researcher and supervisor's contact details were also included should the respondents have any queries regarding the study during the period the questionnaire was available. Additionally, the researcher also encouraged respondents to complete all questions to ensure the completeness of the data.

Lastly, the researcher requested respondents to distribute the survey to their acquaintances who they thought may be suitable. Due to this procedure, it was not possible to calculate the response rate for this survey since the researcher did not know in advance of how many people the survey would be extended to. The questionnaire was made active on 6 January 2015 and was deactivated on 28 January 2015.

Once the questionnaire was created in the software, a pre-test was conducted to assess whether the questions included in the survey were robust. The process of this test is explained below.

4.6.3 PILOT TEST

A pilot test is a trial study being conducted before the actual investigation to assess the feasibility, reliability and validity of the proposed study design and the

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[7] See Appendix 1

[8] Further explanation about the research's ethics approval is in sub-section 4.6.4.

instruments being used (Baker, 1988; Thabane et al., 2010; van Teijlingen & Hundley, 2002). The information gathered from the pilot study is used to refine and/or modify the research methodology for a study and to develop large-scale studies (Thabane et al., 2010). Pilot testing is a crucial component for good survey design because it increases the chance of success since it will give advance warning should the methods and/or instruments be inappropriate, too complicated, or too difficult to understand by the participants (van Teijlingen & Hundley, 2002). Recognising this importance, the present study carried out a pilot study to ensure the adequacy of the research instruments.

The pilot test was conducted in two rounds: expert assessment and convenience review. During the expert critique stage, two academic staff members and one market researcher were involved, since such individuals with experience and/or expertise in scale development are capable of providing valuable inputs to help refine a research instrument (van Teijlingen & Hundley, 2002). Those experts were given a hard copy of the questionnaire and informed of the research's purpose and objectives. Later, they were asked to give feedback on the overall questionnaire, the instructions provided, the questions included as well as their wording. Based on the experts' opinion, the questionnaire passed the face validity check, being clear enough and understandable, and the items were viewed to measure the concepts adequately (Cavana et al., 2001).

Afterwards, questionnaires were distributed to a small convenience sample that fitted within the respondent criteria. The objectives of this stage were to conduct a validity test to ensure the clarity and readability of the questionnaire to general participants, and to figure out the length of time taken to complete the questionnaire. This is important since a lengthy and time-consuming questionnaire will discourage participants from taking part, finishing all parts, and submitting the questionnaire responses.

Eleven people were selected for the convenience review phase and were given access to the questionnaire via email. The same procedures as in the expert assessment were conducted to this group in terms of filling out the survey. The participants were asked to complete the survey, to indicate whether any questions were redundant or unclear, and to provide comments regarding the questionnaire's length, flow, and clarity of the instructions. Once the respondents had filled out the questionnaire, a face-to-face meeting and/or phone conversation was conducted to talk over their feedback. Most

participants indicated that the face validity of the questionnaire was good. Nevertheless, several modifications were necessary to improve the quality of the questionnaire. The alterations included the rewording of the instructions and some questions, as well as the simplification of the layout and format. On average, the participants in the pilot study took 10 minutes to complete the questionnaire, which was considered to be within a reasonable time frame. Once the amendments were made, the final version[9] of the questionnaire was made available to potential participants from the broader population.

4.6.4 ETHICS APPROVAL

Prior to the questionnaire distribution, Human Ethics approval from the Victoria University of Wellington's Human Ethics Committee (HEC) was obtained to ensure that the research conducted was complied with research ethics and academic integrity. In this study, all respondents responded anonymously to protect privacy as well as to encourage a greater and more accurate set of responses.

4.7 CHAPTER SUMMARY

In summary, this chapter has provided a comprehensive discussion of the methodology behind the study, the description of the sample selection, the selection of constructs and items represent manifestations of these constructs in developing the online questionnaire, the pilot test procedure, and the revision for the final questionnaire. The methods of questionnaire distribution were also outlined. The results of the online questionnaire are presented in the following chapter, along with discussions of the evidence associated with each hypothesis.

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[9] The final version of the questionnaire can be seen in Appendix 2.

Chapter Five: Analysis

"The absence of counterproductive behaviours is not identical to good contextual performance, and likewise, the presence of functional behaviours is not identical to low counterproductivity" (Koopmans et al., 2013, p. 8)

5.1   INTRODUCTION

This chapter will focus on the analysis of the data yielded from the online questionnaire and the tests of the hypotheses associated with the defined research objectives. The methods of data analysis, the preparation of the data sets, a descriptive analysis, and the measurement evaluation will also be discussed.

5.2   METHODS OF DATA ANALYSIS

As there are many potential connections that can take place among the constructs and many were a predictor in one relationship and a criterion explanatory variable in another, the present study required a tool that can estimate those relationships concurrently. Social science scholars recommend the use of Structural Equation Modelling (SEM) as an appropriate technique to use in this situation (Nachtigall, Ulf Kroehne, & Steyer, 2003). SEM is a valuable tool because it not only takes into account several equations simultaneously but it also allows for consideration of correlated error terms, which provides a more accurate estimation (Nachtigall et al., 2003). The AMOS 22 software was chosen to perform the SEM analysis.

5.3   PREPARATION OF THE DATA SETS

5.3.1 SAMPLE SIZE REQUIREMENT

Following the questionnaire distribution via email and the researcher's Facebook account, a total of 337 responses were gathered, of which only 171 were deemed valid for the analysis. 44 responses were invalid because the respondents did not pass the filter questions (13 respondents did not work in an office setting environment, and 31 respondents did not access SNS during work hours) and the remaining 122 invalid responses were incomplete because they exited the questionnaire before finishing it. Therefore, these 166 were considered not useable and eliminated from the analysis.

According to Roscoe (1975, as cited in (Cavana et al., 2001), as a rule of thumb, sample sizes that are larger than 30 and smaller than 500 are appropriate for most research studies. However, scholars have more specific recommendations in the

minimum sample size standard for SEM analysis. Hoelter (1983) advised an index value above 200. Additionally, Nachtigall et al. (2003) proposed the sample size has to be more than 25 times the number of parameters to be estimated. Using these formulas, ideally the adequate sample size for the extant study was between 2975 and 3200. However, due to the time limitation associated with completing the thesis, it was not possible to gather data from that number of respondents. Nevertheless, based on the equation from Soper (2015) and Westland (2012), the minimum sample size necessary for this study's model structure would be between 100 to 138. Therefore, 171 respondents were deemed appropriate as an initial assessment of these hypotheses.

5.3.2 TREATMENT OF MISSING DATA AND NEGATIVE QUESTIONS

Several steps were taken to ensure there were no missing data and the coding of scale items was numerically aligned.

Missing data concerns items that had no response (Allen & Bennett, 2010). Although the survey utilised the *force response* tool to make sure respondents answered all of the questions before continuing to the next page, there were a few questions regarding the loafing activities which offered a "never" answer choice. When the respondents selected that option, they would skip the entire section of that particular activity. As a result, all the items' values in the omitted parts were recorded as missing by Qualtrics. To fix this, the missing values were adjusted to "0" so that each was categorised as "not at all" in the regularity segment and "0 minutes" for the duration question, instead of being missing.

There were two negatively worded questions employed in this thesis; one was an item measuring the job productivity dimension (JP3) and another one from the job satisfaction dimension (JS7). In line with the original studies, the responses to these items were reversed. After this, systematic data preparation was completed, analysis could begin.

5.4 RESPONSES STATISTICS

The present study first carried out a descriptive analysis on the dataset to give information on the demographic characteristics of the respondents, as shown below.

Table 5.1. The Respondents' Characteristics

Variables	Frequency	Percentage (%)
Age		
21-25	31	18.1
26-30	38	22.2
31-35	33	19.3
36-40	24	14.0
Over 40	45	26.3
Gender		
Male	88	51.5
Female	83	48.5
Type of Organisation		
Business	72	42.1
Education	27	15.8
Government	42	24.6
Non-profit	10	5.8
Other	20	11.7
Current Position		
Middle management	34	19.9
Line management	10	5.8
Employee	104	60.8
Other	23	13.5
Employment status		
Part time	10	5.8
Full time	161	94.2
Working hours		
The responses varied from a starting time at 7am to 9.30am and finishing time from 4pm to 7pm. Only two people finished at after 7pm (one at 8pm and another one at 9pm).		

SNS Choices. (May select more than one)			
	Facebook	160	54.8
	Twitter	28	9.6
	LinkedIn	62	21.2
	Google +	21	7.2
	Other	21	7.2
Office Regulations Regarding SNS			
	Does your work allow you to have SNS access?	Yes	140	81.9
		No	12	7
		Not sure/Do not know	19	11.1
	Does your work have any written regulation regarding SNS access?	Yes	30	17.5
		No	79	46.2
		Not sure/Do not know	62	36.3

Devices used to Loaf. (May select more than one)								
Activities	**Office computer**		**Office smart phone**		**Personal smart phone**		**Other**	
	Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**
Checking SNS account(s)	71	41.5	4	2.3	92	53.8	4	2.3
Visiting news websites	147	67.1	11	5	54	24.7	7	3.2
Downloading non-work related information	101	70.1	1	0.7	32	22.2	10	6.9
Online shopping	93	69.4	0	0	36	26.9	5	3.7
Online gaming	7	35.0	1	5	10	50	2	10
Non-work related e-mail	124	53.5	10	4.3	90	38.8	8	3.5
Online Banking	117	59.4	7	3.6	67	34.0	6	3.1
Visiting other non-work related websites	125	58.7	8	3.8	69	32.4	11	5.2

From the table above, it was evident that across the age and gender categories, the respondents were spread fairly evenly. As for the type of organisation, although the study attracted more responses from a business context, there still were a few responses in the other categories allowing some consideration of those groups. 60.8% of the respondents were in the lowest level of a management hierarchy. These people tend to

be the ones with the lowest level of autonomy, and thus, are more restricted in conducting loafing. Additionally, most of the working hours range between 7am to 7pm. Thus, the first part of their working day can be assumed to occur in the morning and the second part of their working day in the afternoon. This assumption will be carried forward throughout the subsequent discussion. Furthermore, the majority of SNS used by respondents was Facebook, which was not unexpected considering it was one of the questionnaires' distribution methods. It has also always been a popular website (Ellison et al., 2007). Additionally, it seems that the majority of the organisations the respondents work for tend to be quite open to SNS access (e.g. no restrictions and regulations). This again is not surprising as even in 2010, only 29% of organisations had a social media policy set for their employees (McCollum, 2010), relying instead on informal expectations about their use or non-use. These statistics also show that employees tend to use their own personal devices in doing SNSL but utilise the office computer in conducting OCL. This could potentially be because these types of OCL activities are more comfortably conducted on computers rather than on cell phones. However, since no questions were asked about the reason for this preference, no further explanation and conclusions can be made.

It would have been desirable to compare the data for those who completed and those who did not, to see whether there were differences in terms of their demographic characteristics. However, as these questions appeared at the end of the questionnaire, if they quit the questionnaire midway, these were the questions they definitely missed. As a result it was impossible to make such comparisons. Additionally, most of the respondents did not give any feedback on the concluding screen. The ones who did mostly used it to explain their flexible work hours.

5.5   CONSTRUCT ANALYSIS

The first part of the structural equation model (SEM) analysis was the base model investigation. This section discusses the data gathered from the adaptations of the previously established instruments (e.g. JS, JP, A) using the SEM analysis procedure called measurement model. Afterwards, the loafing data is examined. The last part of the data analysis was the hypotheses testing using the combination of the base model and the loafing model. This method is also known as a structural model testing in the SEM.

However, before carrying out the SEM analysis, measurement evaluation and normality testing were conducted using SPSS 22 software to ensure the subsequent modelling fit the SEM modelling assumptions. These assessments and the results will now be discussed.

5.5.1 MEASUREMENT EVALUATION

The key indicators of the quality of a measuring instrument are the reliability and validity of the measures. It is essential to ensure that the items accurately measure what they are expected to measure (Cavana et al., 2001), especially after the adaptations made to fit the context of the study. To verify this, statistical analyses to check the validity and reliability of the items were performed. Additionally, Table 5.2 summarises the tests employed in the measurement evaluation phase as well as their purposes and associated rules-of thumb.

Table 5.2. Exploratory Factor Analysis Tests and Rule-of-Thumbs

Tests	Purposes To evaluate…	Rules
Convergent Validity		
KMO	Dataset's variance explained by the factors.	≥ .6[a]
Factor loadings	The degree of factor underlying the items	> .7 (ideal); > .4 (acceptable)[bc]
Communalities	Capacity of items to describe the construct/dimension	> .5[c]
Discriminant Validity		
Bivariate correlation	Multicollinearity	< .75[d]
Reliability		
Cronbach's α	Internal consistency of construct/dimension	≥ .7[e]

Note. Sources: [a](Allen & Bennett, 2010); [b](Trochim and Donnelly (2007));[c]Hair Jr, Black, Babin, Anderson, and Tatham (2014); [d]Grewal, Cote, and Baumgartner (2004); [e](Cavana et al., 2001).

a.   <u>Validity</u>

Validity of a scale is the degree to which it measures what it is supposed to measure and it is normally assessed through content and construct validity (Cavana et al., 2001; Field, 2009).

1. **Content Validity**

Content validity, also known as face validity, is a subjective evaluation on how accurately the instrument represents the concept it is trying to measure (Cavana et al., 2001). This was achieved through the pilot test phase. However, this check alone was not sufficient to conclude the overall validity of the instruments. Thus, additional statistical validity tests for construct validity were subsequently carried out.

2. **Construct Validity**

Construct validity is the degree to which a study matches the theories that underlie it (Cavana et al., 2001). Generally, it can be calculated in two ways, convergent and discriminant validity. It is important to remember that those two tests work together and neither alone is sufficient for indicating construct validity (Trochim & Donnelly, 2007).

i. Convergent Validity

Convergent validity can be established using factor analysis by ensuring the items under a construct that theoretically should be related, are also related in reality. However, a particular standard needs to be met before factor analysis can be executed to evaluate its appropriateness in applying such analysis (Cavana et al., 2001). The present study adopted the Kaiser-Meyer-Olkin (KMO) method as the assessment.

a. **KMO**

KMO values vary between 0 and 1 with values closer to 1 considered more favourable as it indicates closer correlations between the items. As a rule-of-thumbs, KMO's cut-off point is 0.6.

Table 5.3. Kaiser-Meyer-Olkin Measure of Sampling Adequacy

Construct	KMO
Job Satisfaction (JS)	.903
Job Productivity (JP)	.814
Autonomy (A)	.870

As presented in Table 5.3, all of the KMO values were higher than the minimum cut-off point, thus, factor analysis could proceed.

b. Factor Analysis

Factor analysis is a statistical technique of data reduction. It enables the researcher to investigate concepts that are not easily measured directly by collapsing a larger number of items into a few interpretable underlying factors (Hair Jr et al., 2014). Factor analysis techniques are used in constructing factor models. Furthermore, factor analysis also assesses whether each item loads highly onto one and only one factor (Hair Jr et al., 2014).

Since the constructs in this study were based on already established studies, some knowledge about the relationships between the variables and their underlying factors was known. Accordingly, principal components analysis was performed (Byrne, 2010). This analysis is a method to verify the uni-dimensionality of the constructs which can be measured through the factor-loading scores of the constructs. Ideally, the factor-loading scores need to be above 0.7 but above 0.4 is still deemed to be acceptable.

Table 5.4. Validity for the Variables

Construct	Code	Factor Loading	Communalities
Job Satisfaction (JS)	JS1	.896	.802
	JS2	.905	.820
	JS3	.919	.845
	JS4	.937	.878
	JS5	.723	.522
	JS6	.879	.774
	JS7	-.253	.064
	JS8	.783	.613
	JS9	.361	.130
	JS10	.264	.070
	JS11	.127	.016
	JS12	.257	.066
	JS13	.921	.848
Job Productivity (JP)	JP1	.755	.571
	JP2	.568	.322
	JP3	-.238	.057
	JP4	.473	.224
	JP5	.551	.303
	JP6	.628	.394
	JP7	.620	.385

	JP8	.567	.321
	JP9	.649	.421
	JP10	.691	.477
	JP11	.537	.288
	JP12	.535	.287
	JP13	.644	.415
	JP14	.687	.471
	JP15	.654	.428
	JP16	.710	.504
	JP17	.704	.496
	JP18	.625	.390
Autonomy (A)	A1	.836	.699
	A2	.842	.709
	A3	.865	.749
	A4	.843	.710
	A5	.876	.767
	A6	.822	.676

The factor analysis revealed that based on each items' factor loadings, eight items (JS1, JS2, JS3, JS4, JS5, JS6, JS8, and JS13) in the job satisfaction variable were above the cut-off point of 0.4 which indicated a strong association with the underlying concept of job satisfaction. However, the other five items, JS7, JS9, JS10, JS11, and JS12, showed factor loadings below 0.4 which means these items have strong associations with another aspect of job satisfaction. One reasonable explanation for the weak association of JS9, JS10, JS11, and JS12 to the other items was that in the original study, these items were measuring the work-life balance dimension of job satisfaction instead of the overall job satisfaction. As for JS7, it could potentially be because it was reversed coded. Some testing of the relationships with this second job satisfaction factor was undertaken, but no significant relationships with the study's other constructs were found (apart from job productivity). Therefore, these five items were entirely omitted from subsequent analysis to allow a more parsimonious model to be presented. Item JS13 had been initially included to give a view of the overall satisfaction. In other words, JS13 alone served as an envelope around the other items. Its high loading and communality suggest that together, the other seven items accomplish their aim of measuring job satisfaction.

A similar result was revealed in the job productivity variable in which 17 items have strong associations with a single underlying factor, with the exception being JP3

(again a reverse-coded measure). Consequently, JP3 was excluded. All six items under the autonomy variable exhibited high factor loadings which showed strong association with each other, and thus, they can be grouped together.

Convergent analysis can also be evaluated by communalities. Communality indicates the total amount of variance of each item described by the construct (Cavana et al., 2001). As a rule of thumb, the cut-off point is 0.5 and any below should be eliminated from further analysis (Hair Jr et al., 2014). As expected from the factor loadings, the same five items of job satisfaction that met the criteria to be excluded also had communalities below the cut-off point of 0.5.

ii. **Discriminant Validity**

Discriminant validity test is important to ensure there are no strong correlations / overlap between constructs. A lack of divergence in between constructs can pose multicollinearity issues for Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) later on (Grewal et al., 2004). Grewal et al. (2004) suggested a correlation score below .75 to indicate no multicollinearity problems and that discriminant validity is supported by the dataset. The correlational analysis between the three constructs showed all values below .75 which means multicollinearity was not viewed to be an issue.

Table 5.5. Discriminant Validity of the Constructs

		JP	JS	A
JP	Pearson Correlation	1	0.25	0.271
	Sig. (2-tailed)		0.001	0
	N	171	171	171
JS	Pearson Correlation	0.25	1	0.45
	Sig. (2-tailed)	0.001		0
	N	171	171	171
A	Pearson Correlation	0.271	0.45	1
	Sig. (2-tailed)	0	0	
	N	171	171	171

b.   Reliability

Reliability is the extent to which a measurement gives results that are consistent and accurate in measuring a concept (Cavana et al., 2001). Normally, it is assessed via Cronbach's alpha (α) coefficients above the cut-off point of 0.7[10].

The reliability analysis (Table 5.6) shows that all Cronbach's α values were above the recommended figure. Therefore, all constructs satisfied the recommended requirements and were retained for the subsequent analysis. Additionally, the values were similar to those in the original studies for these constructs.

Table 5.6. Cronbach's Alpha (α) Coefficient

Construct	Cronbach's α	Number of Items
Job Satisfaction (JS)	.949	7
Job Productivity (JP)	.901	17
Autonomy (A)	.921	6

5.5.2 NORMALITY TESTING

It is essential to ensure that the dataset is normally distributed before conducting the SEM analyses as many subsequent aspects of SEM will be based on this assumption (Allen & Bennett, 2010; Byrne, 2010). Assessment of the normality of the data distribution consisted of the calculation of Skewness and Kurtosis (Byrne, 2010). Skewness measures the symmetry of the data distribution, whereas Kurtosis considers the shape of the distribution of the data (Field, 2009). Skewness and Kurtosis values should be as close as possible to zero or at least be within the range of ±2 for Skewness and ±3 for Kurtosis for data to be accepted as normally distributed (Field, 2009).

If the absolute value of the skewness for the data is more than twice the standard error this indicates that the data are not symmetric, and therefore not normal (Zaiontz, 2014). Similarly if the absolute value of the kurtosis for the data is more than twice the standard error this is also an indication that the data are not normal (Zaiontz, 2014). A

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[10] Refer to the Rule-of-thumbs table (Table 5.2).

flatter distribution has a negative kurtosis. A distribution more peaked than a Gaussian distribution has a positive kurtosis (Zaiontz, 2014).

Table 5.7. Skewness and Kurtosis Analysis

Construct	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Job Satisfaction (JS)	-1.153	.186	.921	.369
Job Productivity (JP)	-.529	.186	.468	.369
Autonomy (A)	-.886	.186	1.359	.369

The skewness and kurtosis analysis for the constructs showed that the data set was approximately normally distributed as both values were all within the acceptable range[11]. The standard errors of the skewness and kurtosis of all three constructs were the same because it used the same sample (Tabachnick & Fidell, 2007). Therefore, all three constructs were retained for subsequent analysis. The Skewness' absolute values were all more than twice the standard error, indicating that the data were not symmetric. Furthermore, the positive values for kurtosis indicate that the distribution of the data is more peaked than normal.

Part of the reason in conducting the abovementioned tests was to check whether the way people responded to these previously validated items in this dataset was similar to the way people responded to it in the past. Generally most of the constructs performed as expected. Accordingly, these items can then be used in the subsequent evaluations phase and the constructs will be formed in the manner described in the following sub-section.

5.5.3 MEASUREMENT MODELS EVALUATIONS

In this stage, each construct was considered as an independent structural model and the relationships between the constructs and its items within the measurement model were evaluated. Furthermore, Goodness-of-fit tests and relevant modifications

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[11] Refer to Table 5.6.

were made, which resulted in an acceptable fit measurement model used in the next phase.

It is important to note that evaluating the measurement models of JP, JS, and A are critical because it further establishes the validity of underlying constructs which the final structural model will depend on. Should the measurement model be less sound, the less credible the results of hypotheses testing in the later stage would be (Byrne, 2010). Additionally, from this point onwards, constructs will be referred to as latent variables and their items will be referred to as observed variables to match the common usage in the literature (e.g. Byrne, 2010).

The dataset included three distinct measurement models for: (1) job satisfaction, (2) job productivity, and (3) autonomy. Each model can be illustrated with a latent variable and its associated observed variables. Each observed variable was also connected to a corresponding measurement error. For model identification purposes, a path from the latent variable to one of its observed variable was constrained to a nonzero loading, preferably to be a value of 1 (Byrne, 2010). The measurement models are displayed in Figure 5.1.
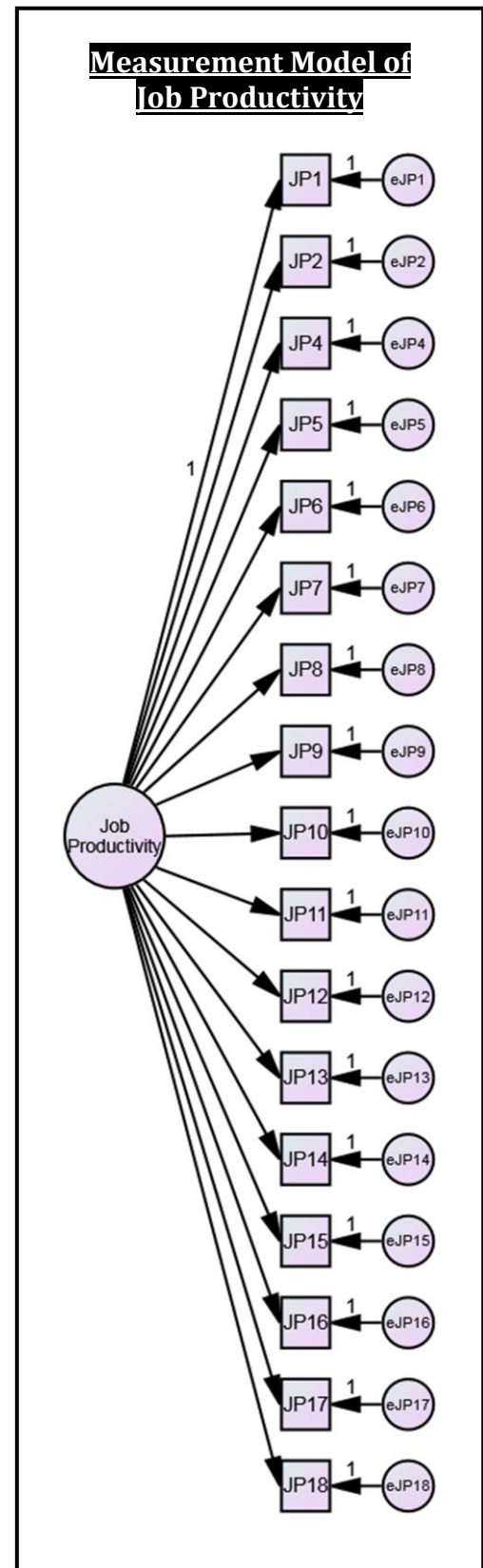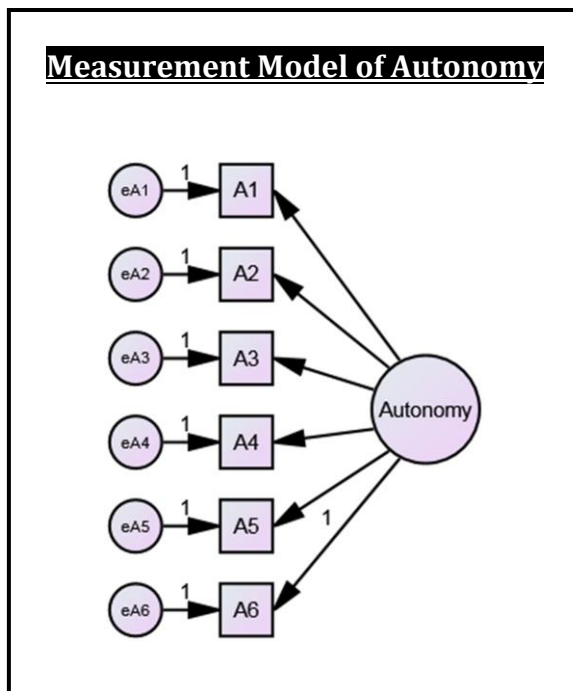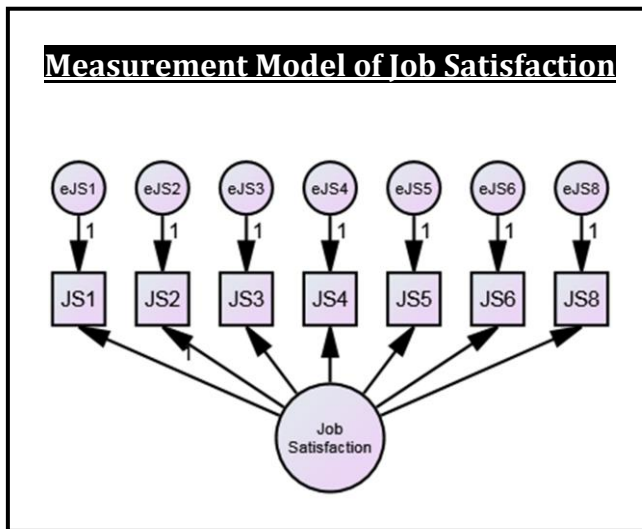
Figure 5.1. The Pre-Modified Measurement Models

According to Byrne (2010), SEM's main interest is to check the extent to which the hypothesised models "fit" or adequately describe the data. This can be achieved by evaluating the adequacy of both the parameter estimates and the model as a whole. The same evaluation will be performed on both the measurement models and the structural models. However, this section will focus on the former, whereas the latter will be presented in Section 5.7.

a. Measurement Models Parameters and Interpretation

The statistical significance of each latent variable in the measurement model can be checked from its parameter estimates, standard error (SE), and critical ratio (CR) as summarised in Table 5.8 (Byrne, 2010).

The parameter estimates ranged from .435 to .951 and show that all observed variables loaded onto the suggested latent variables. There have not been any agreement amongst scholars on the exact appropriate range of parameter estimate. However, Byrne (2010) suggested that correlations > 1.00 and/or with negative variances are unreasonable. The estimated values showed that no standardised parameter estimates fell outside of >1.00 and none of the error variances were negative. Therefore, all parameter estimates were considered to be reasonably acceptable (Byrne, 2010). Second, SEs reflect the level of precision with which the parameter has been estimated. The less extreme the values are, the more accurate the estimation is, thus, the better fit the model is. However, again, there are no absolute criteria of "small" and "large" values since SEs depend on the numbers of observed and latent variables (Byrne, 2010). The SE results suggest that all SE numbers appeared to be in good order. Lastly, the analysis revealed that all CR numbers were ≥ 1.96 which means all CRs were statistically significant (Byrne, 2010). In conclusion, the measurement model analysis indicates that each observed variable and its relations to the respective latent variables can be considered important and should be included in the subsequent structural model.

Table 5.8. Summary of Standardised Parameter Estimates, SEs, and CRs for Each Latent Variable

Latent Variable	Observed Variable	Standardised Estimate	SE	CR	Error Measurement	Variance
JS	JS1	.892			eJS1	.411
	JS2	.936	.048	20.209	eJS2	.209
	JS3	.951	.051	21.164	eJS3	.193
	JS4	.930	.051	19.828	eJS4	.259
	JS5	.637	.072	9.778	eJS5	1.155
	JS6	.860	.059	16.400	eJS6	.521
	JS8	.755	.059	12.738	eJS8	.692
JP	JP1	.738			eJP1	.421
	JP2	.525	.095	6.484	eJP2	.519
	JP4	.435	.111	5.376	eJP4	.790
	JP5	.528	.141	6.551	eJP5	1.145
	JP6	.597	.075	8.724	eJP6	.427
	JP7	.569	.099	6.363	eJP7	.521
	JP8	.517	.104	5.804	eJP8	.621
	JP9	.622	.112	7.959	eJP9	.624
	JP10	.672	.125	8.908	eJP10	.699
	JP11	.479	.122	4.955	eJP11	.858
	JP12	.483	.100	5.561	eJP12	.604
	JP13	.603	.111	7.894	eJP13	.628
	JP14	.678	.112	8.363	eJP14	.546
	JP15	.645	.117	7.614	eJP15	.646
	JP16	.694	.117	7.974	eJP16	.570
	JP17	.674	.126	7.749	eJP17	.691
	JP18	.605	.116	7.958	eJP18	.683
Autonomy	A1	.792			eA1	.569
	A2	.853	.086	12.471	eA2	.409
	A3	.811	.079	11.678	eA3	.423
	A4	.831	.082	12.048	eA4	.415
	A5	.801	.094	11.491	eA5	.619
	A6	.795	.090	11.374	eA6	.586

Note: SE and CR values for JS1, JP1 and A1 are blank because the associated parameter was fixed to 1.

b. <u>Goodness-of Fit Tests and Modification Indices</u>

As mentioned above, the next phase of the evaluation concerns the goodness-of-fit tests of the whole model. AMOS software automatically presents many goodness-of-fit indices. However, reporting every index shown in the report is not necessary nor

realistic because it may create burden and confusion to both the researcher and the readers (Byrne, 2010). Therefore, following Byrne's (2010) suggestion, only the Chi-Square, Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) indices were employed in the present study and are discussed below

The first fit statistics is Chi-Square (χ^2) divided by degrees of freedom (df). It was selected because it is a better measure than χ^2 alone as it is less affected by sample size (Byrne, 2010; Hu & Bentler, 1999). A value for χ^2/df of less than 3 is considered as appropriate and less than 2 means a good fit (Byrne, 2010).

The next goodness-of-fit statistics are baseline comparisons whereby the fitness level is based on a comparison between the χ^2 of hypotheses models and the χ^2 of standard model (i.e. baseline model). This study used the Comparative Fit Index (CFI) from the baseline comparisons because it takes small sample size into account (Byrne, 2010). CFI values of above .95 indicate a good fit of the model (Byrne, 2010; Hu & Bentler, 1999).

The last statistic employed in this thesis was the root mean square error of approximation (RMSEA). RMSEA was deemed to be the most informative test in covariance structure modelling because it is sensitive to the number of estimated parameters in the model (Byrne, 2010). RMSEA values less than .05 indicates good fit for the model, and those values between .05 and .08 show acceptable fit with reasonable errors of approximation in the population. Values ranging from .08 to .10 suggest a mediocre fit, whereas those greater than .10 indicate relatively poor fit (Byrne, 2010). Another benefit of RMSEA is the ability to estimate its precision using confidence interval (Byrne, 2010). AMOS software can automatically report this for a 90% confidence interval. Combined together, a small RMSEA value with a narrow confidence interval is an indication of a well-fitting model (Byrne, 2010).

Table 5.9 presents the summary of the absolute fit indices and their generally accepted cut-off values. The summary of the test results are presented in Table 5.10.

Table 5.9. Goodness-of-Fit Indices and their Acceptable Values

Fit Indices	Acceptable Values
Relative Chi-Square (χ^2/df)	< 2 (good fit); < 3 (acceptable fit)
CFI	> .95
RMSEA	< .05 (good fit); .05 – .08 (acceptable fit); .08 – .10 (mediocre fit); >.10 (poor fit)

Source: Byrne (2010).

Table 5.10. Goodness-of-Fit Statistics for Each Latent Variable

Latent Variable	χ^2/df	CFI	RMSEA	Lo 90	Hi 90
JS	3.025	.977	.109	.072	.148
JP	5.521	.623	.163	.151	.175
A	15.802	.835	.295	.253	.339

As a good-fitting model is rarely achieved initially, in the event that a model did not fit the data, modifications should be made to improve the model and data fitness. Byrne (2010) suggests to conduct modification based on the Modification Index (MI). In this study, cautious modifications in the SEM models were made according to the successively largest MI, and its relevancy to theories. Should the suggested modification on the biggest MI value make no sound substantive sense theoretically, the next largest MI value was considered. This caution was stressed to avoid the models to be overfitted or resulting in Type 1 error (Byrne, 2010; Schreiber, Nora, & Stage, 2006). As a result, a few theoretically justified modifications in the measurement models were made primarily by correlating observed variables' error term to achieve a good fit model.

Table 5.11. Goodness-of-Fit Statistics for Each Latent Variable Post-Modification

Latent Variable	χ^2/df	CFI	RMSEA	Lo 90	Hi 90
JS	2.317	.986	.088	.047	.130
JP	2.248	.902	.086	.072	.100
A	1.519	.996	.055	.000	.123

The outcomes presented in Table 5.11 revealed that overall the absolute fit indices were acceptable post-modification. After modification, the JS and JP χ^2/df numbers were below 3, suggesting acceptable fit, whereas for Autonomy the χ^2/df value

decreased to below 2 which meant it had the best model fit amongst the three. A similar pattern also happened in the CFI indices in which JP and A exceed the acceptable levels to be a good fit model after adjustments. Furthermore, RMSEA indices of all three models improved substantially. JS and JP moved to mediocre fit category, whereas A had an acceptable fit based on RMSEA. To an extent, these levels may have been due to the relatively small sample size generated in this study. The final measurement models with their estimated coefficients are shown in Figure 5.2.
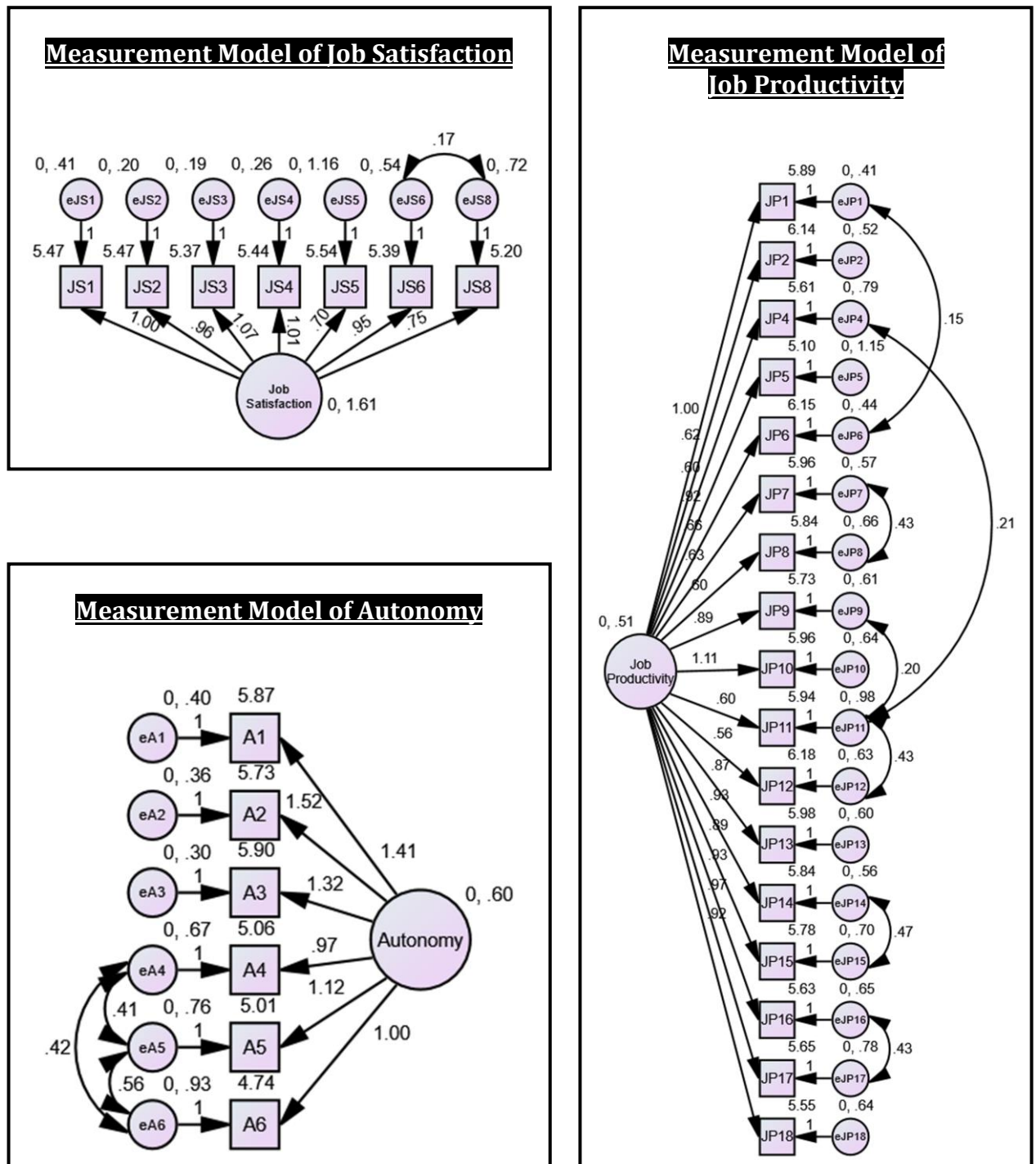
Figure 5.2. Good-Fit Measurement Sub-Models with Correlations

5.6   LOAFING DATA ANALYSIS

This section discusses the loafing data gathered from the questionnaire. As mentioned in the previous chapter, the data contained detailed assessments of each type of loafing activity the respondents usually engaged in during office hours. It also includes detailed figures on the regularity and the duration of those activities as well as when these occurred during the typical day. To simplify the presentation, the time intervals of the work hours were divided into three slots: morning, breaks, and afternoon. The summary of the loafing data frequency is presented in Table 5.12. Due to the size of the table, the regularity and the duration data is provided in Appendix 3.

As displayed in Table 5.12, several activities such as SNSL, reading news websites (OCL1), and engaging in social conversations with co-workers (PL1) were conducted daily. This made them a lot more frequent than others which were conducted more on a monthly basis (i.e. online shopping (OCL3) and receiving non-work related visits (PL2)). Also, amongst all loafing actions, online gaming (OCL4) appeared to be the least frequent with only 6.4% of the respondents engaged in it. Also, it is important to note that certain loafing (SNSL, social conversation (PL1), non-work related phone calls (PL4), non-work related errands (PL5), and cell phone application usage (PL7)) occurred more during breaks than in work time, whereas others did not have distinct differences in time intervals. Since the focus of present study was more on the loafing activities during work time, the analysis paid most attention to the morning and afternoon time slots.

Several interesting outcomes are revealed in the regularity and duration data[12]. The data analysis showed that SNSL was only conducted around 3-4 minutes in each time slot. This amount is proportionally small in the scheme of daily activity, which was unexpected. The most time being consumed for loafing was in social conversation which took from 4 to 6 minutes in each time category it is being conducted. Additionally, although the respondents claimed that they are very rarely doing non-work related errands during office hours, when they do conduct these and they take quite a long time (4-8 minutes) compared to the other loafing activities which were done rather more frequently.

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[12] Refer to Appendix 3.

Table 5.12. Summary of Loafing Data - Frequency

Frequency	Activities Code	SNS SNSL		News Websites OCL1		Download Non-ork Related Information OCL2		Online Shopping OCL3		Online Gaming OCL4		Non-work Related E-mail OCL5		Online Banking OCL6		Other Non-work Related Websites OCL7	
Options	Value (as a proportion of each day)	Number of Respondent	%	Number of Respondent	%	Number of Respondent	%	Number of Respondent	%	Number of Respondent	%	Number of Respondent	%	Number of Respondent	%	Number of Respondent	%
Never	0	0	0	5	2.9	38	22.2	52	30.4	160	93.6	12	7	17	9.9	16	9.4
Less than Once a Month	0.01	6	3.5	7	4.1	32	18.7	47	27.5	8	4.7	12	7	20	11.7	17	9.9
Once a Month	0.03	4	2.3	4	2.3	16	9.4	20	11.7	1	0.6	2	1.2	11	6.4	6	3.5
2-3 Times a Month	0.1	3	1.8	13	7.6	27	15.8	25	14.6	0	0	16	9.4	26	15.2	21	12.3
Once a Week	0.14	8	4.7	8	4.7	21	12.3	10	5.8	0	0	13	7.6	27	15.8	26	15.2
2-3 Times a Week	0.4	26	15.2	23	13.5	23	13.5	13	7.6	1	0.6	33	19.3	47	27.5	43	25.1
Daily	1	124	72.5	111	64.9	14	8.2	4	2.3	1	0.6	83	48.5	23	13.5	42	24.6
		Min Max Mean SD		Min Max Mean SD		Min Max Mean SD		Min Max Mean SD		Min Max Mean SD		Min Max Mean SD		Min Max Mean SD		Min Max Mean SD	
		0.01 1 0.7953 0.3446		0 1 0.7182 0.39683		0 1 0.1733 0.27909		0 1 0.0829 0.17781		0 1 0.0088 0.08219		0 1 0.5836 0.42324		0 1 0.2849 0.32035		0 1 0.3818 0.38101	

Frequency	Activities Code	Social Conversation PL1		Receive Non-work Related Visits PL2		Daydream PL3		Non-work Related Phone Calls PL4		Non-work Related Errands PL5		Take Breaks in between Work Tasks PL6		Use Applications on Cellphone PL7	
Options	Value (as a proportion of each day)	Number of Respondent	%	Number of Respondent	%	Number of Respondent	%	Number of Respondent	%	Number of Respondent	%	Number of Respondent	%	Number of Respondent	%
Never	0	6	3.5	51	29.8	45	26.3	6	3.5	22	12.9	16	9.4	66	38.6
Less than Once a Month	0.01	5	2.9	52	30.4	26	15.2	27	15.8	34	19.9	8	4.7	10	5.8
Once a Month	0.03	2	1.2	20	11.7	4	2.3	22	12.9	18	10.5	8	4.7	3	1.8
2-3 Times a Month	0.1	8	4.7	14	8.2	12	7	40	23.4	34	19.9	13	7.6	6	3.5
Once a Week	0.14	7	4.1	12	7	15	8.8	23	13.5	26	15.2	13	7.6	12	7
2-3 Times a Week	0.4	23	13.5	13	7.6	31	18.1	35	20.5	29	17	46	26.9	25	14.6
Daily	1	120	70.2	9	5.3	38	22.2	18	10.5	8	4.7	67	39.2	49	28.7
		Min Max Mean SD		Min Max Mean SD		Min Max Mean SD		Min Max Mean SD		Min Max Mean SD		Min Max Mean SD		Min Max Mean SD	
		0 1 0.7666 0.37105		0 1 0.1076 0.23638		0 1 0.3163 0.39315		0 1 0.2348 0.2975		0 1 0.1609 0.23111		0 1 0.5195 0.41015		0 1 0.3595 0.42842	

Several statistical examinations using correlational analysis were conducted on the dataset across all 30 items to measure these different elements and their relationships in detail. As the associated table was very large, it is not reported in this thesis but the key aspects are presented here.

The results revealed that loafing activities definitely happened. However, there were very few significant correlations between responses on one type of loafing to the others, especially within the PL category. This suggests that some people did certain combinations, whereas other people did completely different configurations. The most connected loafing activities found were reading news websites (OCL1) and dealing with non-work related emails (OCL5) as well as downloading non-work related information (OCL2) and online banking (OCL6). Nonetheless, these correlations were not significant. Consequently, no alternative patterns emerged from this set of responses for how to aggregate the loafing activities.

This finding had the potential to create problems in the following SEM analysis because this level of detail is not particularly amenable for such research. As each loafing activity only had one measurement item, adding many loafing constructs would greatly complicate the structural model and likely lead to poor levels for the fit indices. Moreover, some activities were only being undertaken by very few people, in insufficient numbers to allow the researcher to draw a clear conclusion on their effects on JS or JP individually. These situations required the researcher to collapse the very detailed items into a broader categorisation to ensure each occurred sufficiently to warrant further analysis with SEM. Accordingly, summary measures across categories of loafing were made and used as constructs for loafing assessment.

The first assessment was based on the amount of time spent on loafing in each of the time slots. To achieve this, the regularity and duration data of each activity were combined and extracted. As a result, three constructs: morning, breaks, and afternoon were produced. Although break times were not the main focus of this study, they were still included as a part of the model to give a better overview on the employees' day-to-day loafing behaviour and determine if these had any relationship with the other central constructs.

The second calculation was based on the type of loafing activities being performed daily. Similar combination and extraction procedures as in the first assessment were applied here to obtain the constructs. Moreover, since the present study sought particularly to understand SNS loafing, this particular activity was included separately from the other types of cyber-loafing. As a result, three constructs: SNSL, OCL, and PL were formed.

The final categories involved the combination between these two assessments, resulting in six constructs: SNSL in the morning, OCL in the morning, PL in the morning, SNSL in the afternoon, OCL in the afternoon, and PL in the afternoon. The aim of this amalgamation was to examine the relationships between those two categorisations in different configurations. In other words, to figure out whether certain types of loafing activities being conducted at one particular time of the day would have a different influence than if being done in other time slots. The break time construct was deemed unnecessary in this type of configuration particularly because most respondents used their own devices for cyber-loafing and presumably are allowed to undertake these activities during breaks without restriction. The statistics summary of the loafing constructs were presented in Table 5.13.

Table 5.13. Loafing Constructs' Duration Statistics Summary in Minutes per Day

	Morning	Breaks	Afternoon	SNSL	OCL	PL
Minimum	0	0.22	0	0.01	0	0
Maximum	85.2	96.3	105.2	45	143	171
Mean	19.493	27.004	20.668	9.714	24.437	30.112
Std. Deviation	18.253	20.541	20.037	11.159	24.788	28.317

	SNS Morning	OCL Morning	PL Morning	SNS Afternoon	OCL Afternoon	PL Afternoon
Minimum	0	0	0	0	0	0
Maximum	15	50	62	15	51.6	62
Mean	2.719	7.794	8.980	2.985	7.557	10.126
Std. Deviation	4.157	8.754	9.962	4.057	9.097	11.006

The statistics showed that, excluding break time, respondents spend on average around 40 minutes of their work time loafing per day. Although this number is not alarming, some employees can loaf for up to 3.2 hours daily. With the regular 7-8 hours work, that number takes almost half of the employees work time. The result also revealed that respondents are less likely to loaf in the morning. Additionally, in comparison to international data, employees' cyber-loafing time in New Zealand is about 3.74 hours per week, which is lower than the weekly average of 4.2 hours spent on cyber-loafing in the Asia Pacific region (Zhou & Zhuoqiong, 2005)[13].

As mentioned earlier, SNS loafing revealed a low amount of work hours being consumed in doing these particular activities. This number is relatively small compared to the total work time and the other two types of loafing, OCL and PL, which take approximately 2.4 and 2.8 hours respectively. These bigger averages seem reasonable due to the seven activities being contained within each of the types while SNSL only covers one activity. Additionally, PL activities seem to be the type of loafing that consume most of the work time. It is also important to note that there is an increase of 2 minutes in PL in the afternoon compared to the PL in the morning which indicates that employees tend to loaf more in the afternoon.

Since the abovementioned constructs were single indicators, measurement testing and measurement model evaluation similar to the ones being executed in the base model analysis were not possible. Instead, an assumption was made that each construct has a reliability of analogous to a Cronbach's alpha of 0.8 (Cavana et al., 2001). Each construct's variance was then multiplied by (1-0.8) to fix the value for the error variance associated with that single item construct. Models were also run with other levels of reliability assumed. However, these yielded few differences in terms of fit or parameters and so only the estimates for 0.8 reliability are reported below.

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[13] Refer to 2.3.3.c.

5.7 STRUCTURAL MODELS

Following the achievement of a good-fit measurement model of each latent variable in the base model and the formation of the loafing construct, the next step was to develop a structural model to aid the examination of the hypotheses. The structural model schematically portrays the relationships between latent variables in correspondence to the hypotheses. The present study postulates that an employees' job satisfaction (JS) has a positive influence on their job productivity (JP). Therefore, a path was included from JS to JP. Furthermore, loafing was hypothesised to have a positive relationship with job satisfaction but negatively influence job productivity. Thus, paths were added from loafing to JS and JP. In addition, autonomy was proposed to positively affect all other latent variables. Consequently, paths were added from A to JP, JS, and the Loafing constructs.

In analysing the structural model, similar assessment steps to the measurement model were performed. First, the goodness-of-fit statistics of each model was examined. If the hypothesised model did not fit the data, modifications were made to improve it using sound theoretical reasoning (Byrne, 2010). After a good fit was achieved, the second step was to perform the path analysis and hypotheses testing on the modified models. Hypotheses testing was then based on the estimated regression coefficients (β) and significance values (p) of each path between the different constructs. The significance values determine whether the data support or refute the hypothesised relationships, whereas the estimated coefficients indicate the strength and direction of these relationships (Cavana et al., 2001).

Due to the small sample size, this thesis chose to highlight significance levels up to a 0.10 (confidence level above 90%) because it can be typically harder to find very low p-values in such conditions. Moreover, the study's hypotheses are directional, in which they should be either positive or negative. Since the calculated p-values from AMOS are for the two-sided significance test of whether the coefficients differ from zero, highlighting significance levels to 0.10 again seems justified.

The following sub-sections explain the hypotheses testing. Since loafing consisted of three different categorisations, the hypotheses testing of each categorisation was performed separately.

5.7.1 TIME SPENT LOAFING (MORNING, BREAKS, AFTERNOON)

The goodness-of-fit statistics for the time loafing structural model were χ^2/df = 2.140, CFI = .862, RMSEA = .082, Lo90 = .075 and Hi90 = .089. The statistics showed that based on χ^2/df, the model has acceptable fit but CFI indicated it did not fit the data adequately. Furthermore, the RMSEA point demonstrated that the model has mediocre fit. Overall, this structural model was outside the recommended range of good fit, and thus modification was needed.

When the modification suggestion was performed by correlating the morning latent variable's residual term and afternoon latent variable's residual term, the AMOS output showed that the estimated covariance matrix was not positive, likely due to the single indicator constructs for time spent loafing. This alteration was then considered to be inacceptable (Wothke, 1993). Thus, no modification was made to the structural model, and subsequent testing was based on the original model.

As shown in Figure 5.3, five out of twelve paths were significant. Three of the significant paths were positively associated, whereas the other two were negatively associated. The remaining paths were insignificant.
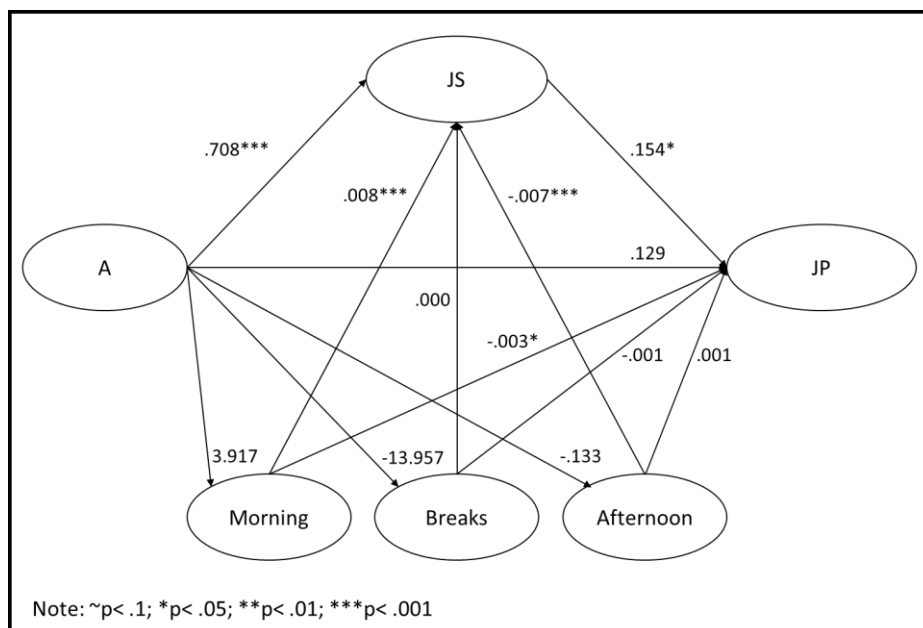
Figure 5.3. Path Diagram for the Time Structural Model

This first model reveals that the relationships between A and JS (β = .708, p < .001) as well as JS to JP (β = .154, p = .017) were in line with the hypotheses. The Morning activities also have the hypothesised relationships; negatively related to JP (β = -.003, p = .016) and positively related to JS (β = .008, p < .001). Contrariwise, Afternoon activities reveal the opposite of what the researcher hypothesised as it had a negative relationship with JS (β = -.007, p < .001). One possible interpretation of this coefficient was that the more loafing activities are conducted in the afternoon, the lower the level of employees' satisfaction is. However, since the path is correlational, should the direction of the path be drawn inversely, the interpretation could be different. The result could potentially mean the lower satisfaction the employees feel, the more loafing happens in the afternoon. Moreover, Afternoon activities do not affect JP at all, which was not in line with the hypothesis. The other interesting finding was that loafing activities over the Breaks seem to not have any effects on either satisfaction or productivity.

5.7.2 LOAFING ACTIVITIES

a. <u>Hypothesised Structural Model Analysis</u>

GFI statistics from the analysis of the activities were χ^2/df = 1.866, CFI = .891, RMSEA = .071, Lo90 = .064 and Hi90 = .079. The figures showed that although the χ^2/df and RMSEA values indicate a good or acceptable fit, respectively, the CFI value shows that the model is not within the acceptable range of model fit. This suggests that modification was necessary to gain a better fit.

b. <u>Modified Structural Model Analysis</u>

Based on the MI suggestion, the modification was conducted on the activities' structural model by creating a path between the OCL latent variable's residual term and PL latent variable's residual term. As predicted, the outcome showed better figures; χ^2/df = 1.688, CFI = .914, RMSEA = .064, Lo90 = .056 and Hi90 = .071.
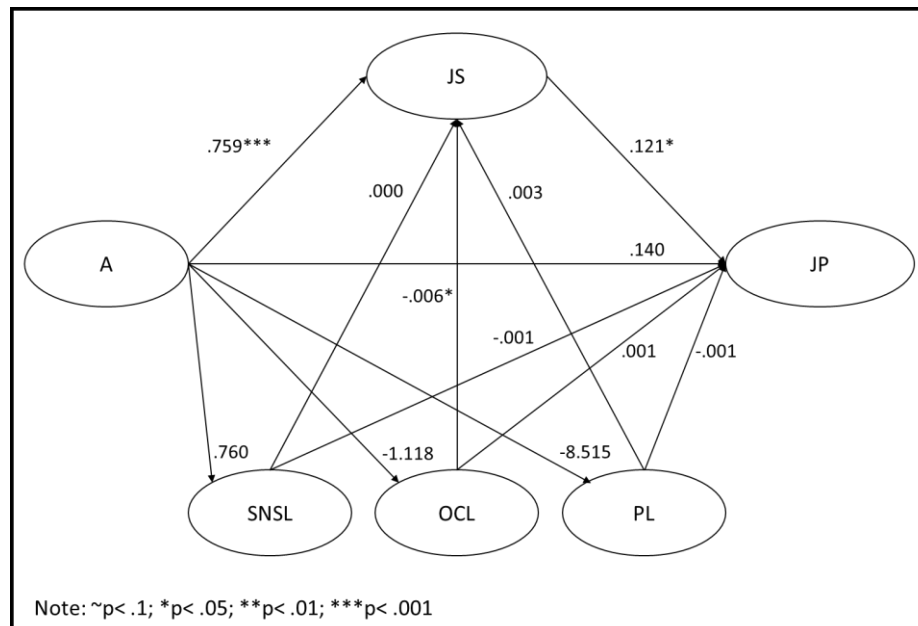
Figure 5.4. Path Diagram for the Activities Structural Model

As shown in Figure 5.4, the majority of the paths had insignificant relationships. Similar to the previous model, the paths between A and JS (β = .759, p < .001) as well as the path between JS and JP (β = .121, p= .029) were found to match the hypotheses. The results for the loafing activities, though, seem to contradict the researcher's initial propositions. The Activities Structural Model reveals that in aggregate, different types of loafing have little impact on JP and JS, with SNSL and PL activities not having any significant impact on JP or JS. Additionally, OCL unexpectedly revealed no significant relationship with JP and a negative correlation with JS (β = -.006, p = .013). It seems that the more OCL activities are being conducted by employees, the less satisfied they feel about their jobs. The other possibility could also occur when the path's direction was drawn differently, was that the less satisfied employees are, the more OCL activities they do.

5.7.3 COMBINATION BETWEEN TIME AND ACTIVITIES

a.   Hypothesised Structural Model Analysis

The analysis of the combination between time and activities revealed χ^2/df = 2.837, CFI = .763, RMSEA = .104, Lo90 = .098 and Hi90 = .110. The figures showed that the model was relatively poor-fitting despite its acceptable fit indicated by χ^2/df points. This was likely due in part to the inability to include paths between autonomy and the loafing time category combinations as these meant the structural model became unidentified. It also suggests that adjustment was required to increase the model fit.

As with the time loafing structural model modification, when the adjustment suggestion was performed by drawing links between PL Morning and PL Afternoon latent variable, the output showed that the following covariance matrix was not positive definitely. According to Wothke (1993), estimation should not be undertaken in this case, and thus, no modification was made in this structural model. The hypothesis testing was then performed based on the original model.
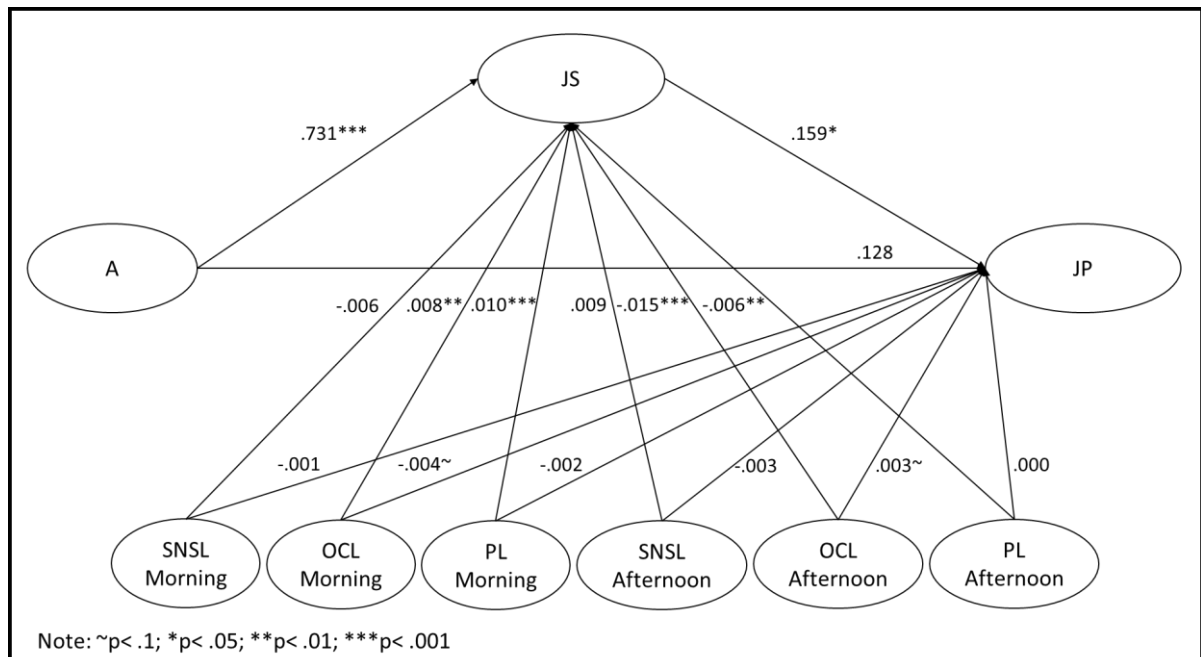
Figure 5.5. Path Diagram for the Time and Activities Amalgamation Structural Model

More than half of the paths in this model were significant, with five of them being positive while the other three were negative. As was found in the previous models, the relationship between autonomy and job satisfaction was positive and highly significant (β = .731, p < .001) in this model. A similar regression coefficient as was found in the other two structural models was found for the relationship between JS and JP here (β =.159, p = .012). This shows that in regard to the three base constructs, A, JS, and JP, the results do not change much throughout the three models. It also demonstrates that the three estimated models were quite stable.

The Time and Activities Amalgamation Structural Model's analysed the correlations between constructs in greater detail. The results prove to be supporting the findings from the previous two models, although several new relationships emerged in this third model. In the second model, no relationship was shown between OCL and JP, or between PL and JS or JP. However, in this combination model, it was revealed that there could be as some coefficients were significant at a p<0.10 level.

Corresponding to the findings before, SNSL being conducted both in the morning and afternoon, did not have any relationship with JP and JS. This is potentially due to the low level of engagement being conducted via SNS day-to-day by the respondents[14]. Furthermore, this model further supports the findings from the second model that different types of loafing affect JP and JS differently. It also demonstrates that loafing activities being conducted at different times of the day may have different effects. The significant negative parameter for OCL activities conducted in the morning matches the hypothesised relationship with JP (β = -.004, p = .061) as does the positive link to JS (β = .008, p = .004). Similarly, Morning PL activities have a positive relationship with JS (β = .010, p < .001) but do not appear to affect employees' productivity. Contrariwise, the OCL and PL activities in the afternoon demonstrate the opposite of the hypotheses. This model reveals that OCL Afternoon was positively related to JP (β = .003, p = .082) although the significance level is relatively low. It also shows that OCL Afternoon was negatively associated with JS (β = -.015, p < .001). Following the same reasoning made in the previous models, this negative path could potentially indicate that the lower the job satisfaction, the more the employees do OCL in the afternoon.

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[14] Refer to Table 5.12 and Appendix 3.

Additionally, this model shows no significant connections between PL Afternoon with JP but it reveals negative path with JS (β = -.006, p = .004). This means that PL activities that are conducted in the afternoon do not affect employees' productivity but the more it is done, the less satisfied the employees feel about their jobs. However, similar to OCL Afternoon, it could also indicate that the lower the JS, the more PL activities are conducted in the afternoon by employees.

5.8 FINDINGS RELATIVE TO HYPOTHESES

Six hypotheses were investigated using three structural models for this questionnaire dataset. Hypotheses with a significance level above 90.0% confidence interval (p<.1) were deemed to indicate some statistical support.

In summary, Table 5.14 presents the results of the hypothesis testing, and revealed two out of six hypotheses were supported across all three models. These were Hypotheses H1, where job productivity was found to be significantly and positively affected by job satisfaction, and H4a, where autonomy was found to be significantly and positively related to job satisfaction. H2 was partially supported in some models under a circumstance in which OCL were being conducted in the morning affecting job productivity negatively. Similarly, H3 was partially supported for some types of loafing behaviour in the morning, specifically OCL and PL, which affected job satisfaction positively. The remaining two hypotheses were not supported due to either a significant negative estimated coefficient (when a positive relationship was hypothesised) or estimated coefficients not differing significantly from zero. Somewhat unexpectedly, autonomy had no direct effect on both job productivity and loafing. For the latter relationship this suggests that loafing activities are not due to job characteristics and more likely vary with respect to factors associated with each individual employee.

Table 5.14. Summary of Hypotheses Testing Outcomes

	Hypotheses	Model 1	Model 2	Model 3	Result
H1	The employee's job satisfaction has a positive relationship with job productivity	✓	✓	✓	Supported
H2	The employee's loafing behaviours has a negative relationship with job productivity	✓	✗	✓ for OCL in the morning ✗ for OCL in the afternoon	Partially supported
H3	The employee's loafing behaviour has a positive relationship with job satisfaction	✓ in the morning ✗ in the afternoon	✗	✓ for OCL in the morning ✓ for PL in the morning ✗ for OCL in the afternoon ✗ for PL in the afternoon	Partially supported
H4a	The employee's level of autonomy has a positive relationship with job satisfaction	✓	✓	✓	Supported
H4b	The employee's level of autonomy has a positive relationship with productivity	✗	✗	✗	Not supported
H4c	The employee's level of autonomy has a positive relationship with loafing behaviour	✗	✗	N/A	Not supported

Chapter Six: Discussion, Contributions, and Conclusions

"This employee may be loafing. Can you tell? Should you care?"

(Sunoo, 1996)

6.1   INTRODUCTION

This chapter discusses in greater depth the findings presented in the previous chapter in light of the existing literature. Some additional relationships outside those hypothesised are also considered here. The discussion of the research findings has the intention to specifically enrich the understanding of the SNS phenomenon in workplaces in the context of loafing.

As for the outline of this chapter, first the results found within the variables in the base model (e.g. job satisfaction, job productivity, and autonomy) will be addressed and then the influences of loafing on those variables. Furthermore, theoretical contributions and managerial implications of the thesis findings are explained. Additionally, as with any other studies, this thesis is not without limitation. Therefore, limitations along with potential opportunities for future research are also presented.

6.2   THE RELATIONSHIP BETWEEN JOB SATISFACTION AND JOB PRODUCTIVITY

In regards to loafing behaviour, several studies assert that job satisfaction influences job productivity in a positive manner (Bennett et al., 2010; Douthitt & Aiello, 2001; Kanungo, 1986; Lim & Chen, 2012; Messarra et al., 2011; Moqbel et al., 2013; Stanton, 2002). The three models used to test the first hypothesis (H1) suggested that job satisfaction indeed has a significant direct positive relationship with job productivity[15]. This indicates that the more satisfied employees feel about their job overall, the more productive they become. This study's result lends further support to Strauss's (1968) finding, which suggests that an increase in employees' morale would lead to higher productivity.

Prior to the exclusion of the work-life balance dimension of job satisfaction from the analysis due to its factor analysis result[16], it was found that this aspect of job satisfaction also had a significant positive relationship with job productivity. This would indicate that when employees achieve greater work-life balance, the more productive these employees are at work. This finding echoes previous studies which stated

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[15] See Figure 6.1.
[16] Refer to Factor Analysis sub-section in Chapter 5

employees who can balance their professional and personal lives have the tendency to feel more satisfied about their job and consequently work better (Friedman & Greenhaus, 2000; Malik et al., 2010; Messarra et al., 2011; Moqbel et al., 2013). This consistent positive association between job satisfaction and job productivity will be used throughout the remainder of the discussion in regards to the other components.
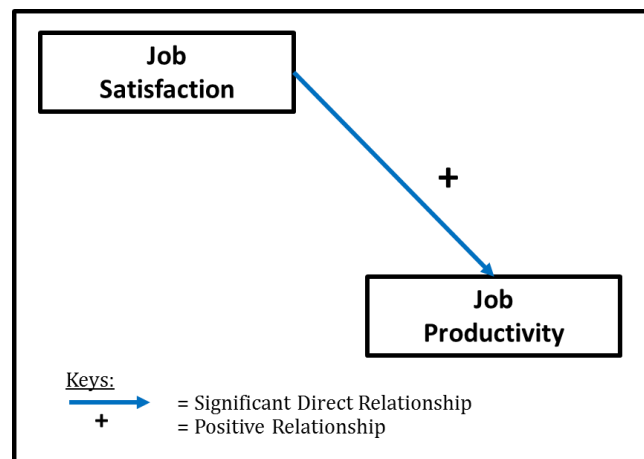
Figure 6.1. The Impact of Job Satisfaction on Job Productivity

6.3   THE INFLUENCE OF AUTONOMY
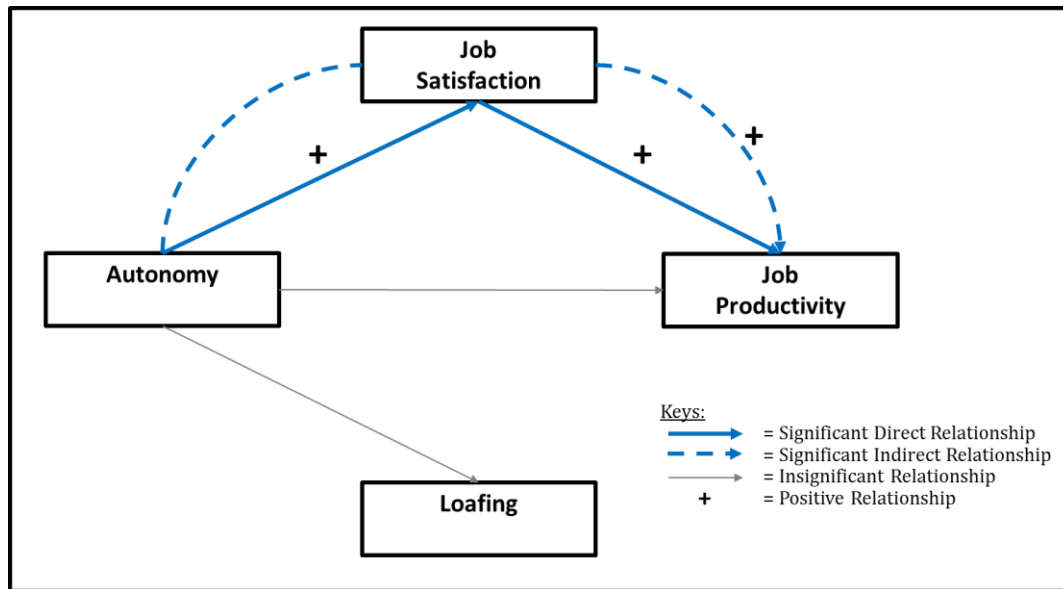
Figure 6.2. The Impact of Autonomy to the Other Variables

The existing management literature notes the significance of autonomy as a factor in job characteristics studies (Breaugh, 1985; Cummings & Molloy, 1977; Hackman & Oldham, 1976). Furthermore, several researchers have established positive relationships between autonomy and the other constructs in this study (Andreassen et al., 2014; Garrett & Danziger, 2008bb; Littman-Ovadia et al., 2013; Loher et al., 1985; Stanton, 2002). Based on that, the present study hypothesised positive relationships between autonomy and job satisfaction (H4a), job productivity (H4b), as well as loafing (H4c).

The present study's analysis, however, showed that only the relationship between autonomy and job satisfaction matched the hypothesis. This finding indicates that in the context of employees' loafing behaviour, the greater the employee's perception of their level of autonomy (Breaugh, 1985; Hackman & Lawler, 1971; Idaszak & Drasgow, 1987), that is the more freedom they think they have on scheduling their work (Morgeson & Humphrey, 2006), the happier they are with their work situation. This is in-line with Littman-Ovadia et al.'s (2013) and Loher et al.'s (1985) notion that decentralisation at work in the form of autonomy positively affects employees' satisfaction.

In regards to the connection between autonomy and the other two components (job productivity and loafing), this thesis' findings disagree to some extent with previous studies since it reveals there are no significant relationships between autonomy and job productivity as well as with loafing. This discrepancy can perhaps be attributed to past studies evaluating the relationships using other facets of autonomy instead of work-scheduling autonomy and autonomy in general aspects (Garrett & Danziger, 2008bb) or not including both job satisfaction and productivity in their model.

More specifically, the findings here suggest that, regardless of the level of autonomy employees enjoy conducting their day-to-day activities, it does not directly reflect on the extent of their productivity or the amount of loafing behaviour being conducted. This connection between autonomy and loafing is inconsistent with Garret and Danzinger's (2008b) study which found that the higher level management, who likely have greater autonomy, tend to loaf more.

Additionally, taking into consideration the direct positive relationship between job satisfaction and job productivity as discussed earlier, this study further suggests that autonomy's influence on job productivity is likely in an indirect and positive way through job satisfaction[17]. Previous studies that have not included both job satisfaction and job productivity may have missed this indirect linkage. This prediction is in accordance to Stanton's (2002) study, which acknowledges the close relationship between job satisfaction and job productivity in regards to autonomy.

6.4   ALTERNATIVE CATEGORISATIONS OF LOAFING

The literature review found that past studies tested loafing activities separately and tend to neglect the physical loafing activities. Therefore, this thesis investigated different types of loafing activities collectively. Initially, the present study proposed negative relationships between loafing and job productivity (H2) and a positive relationship concerning loafing and job satisfaction (H3) as found by past studies on these matters (Bock & Ho, 2009; Coker, 2013; Dixon, 2005; Liberman et al., 2011; Lim, 2002; Liu & Kuo, 2007; Messarra et al., 2011; Moqbel et al., 2013; Sullivan et al., 2013; Weatherbee, 2010).

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[17] See Figure 6.2.

Based on the data analysis, the present study was able to identify three separate categorisations in measuring the connection between loafing and job productivity as well as job satisfaction. These are (1) time spent loafing, (2) loafing activities, and (3) the combination between time and activities. The following sections discuss each of these components in light of relevant findings and past studies.

6.4.1 THE IMPACT OF THE TIME OF LOAFING ON JOB SATISFACTION AND JOB PRODUCTIVITY
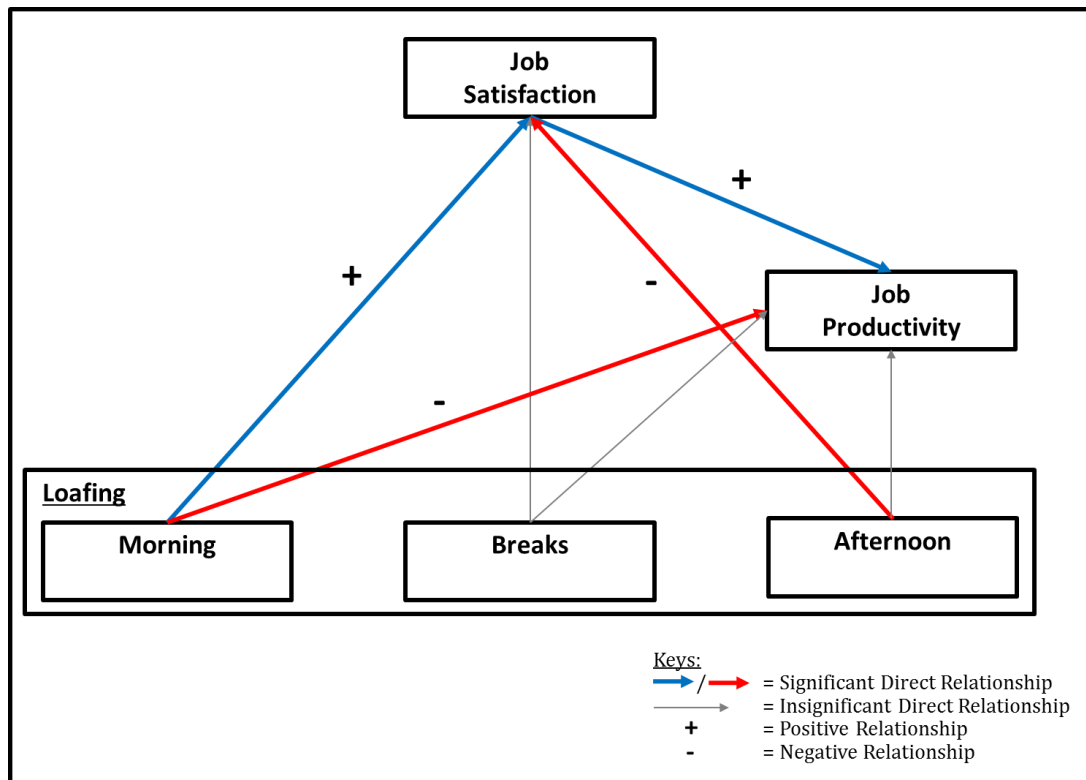
Figure 6.3. The Impact of the Time of Loafing on Job Satisfaction and Job Productivity

The findings suggest that loafing in the morning matched H2, as it exhibited a direct negative effect on job productivity, indicating that as employees when loaf more in the morning, they are less likely to be productive. This seems sensible since employees report that their most productive time of the day is between 9am to 11am (Gouveia, 2014). Therefore, doing non-work related activities during that phase will

probably be detrimental to their productivity and is in agreement with the literature which posits that loafing behaviour can bring direct damage to companies' productivity (Bennett & Robinson, 2000; Dixon, 2005).

Moreover, the direct positive relationship between Morning Loafing and job satisfaction (H3) matches those found by several scholars within the management literature, who suggested that loafing activities can increase employees' morale, hence, higher satisfaction towards their jobs (Lim & Chen, 2012; Moqbel et al., 2013).

Drawing from the result that job satisfaction affects job productivity directly and positively and connecting it to the outcomes from Morning Loafing, the researcher recognises the likelihood that in the end these positive connections may balance out some of the negative impact of loafing behaviours (conducted in the morning) on job productivity.

Another finding was that loafing engagements during the afternoon are directly and negatively related the level of satisfaction the employees have for their jobs. This result was unexpected as it is inconsistent with previous studies (Lim & Chen, 2012; Moqbel et al., 2013). One possible explanation is that the more loafing they do in the second part of their work hours, the less happy they are anyway with job satisfaction driving loafing instead of loafing affecting satisfaction. This interpretation partially supports previous studies which argue that employees who are dissatisfied with their jobs tend to loaf more (Darrat et al., 2010; Mount et al., 2006; Robbins & Judge, 2009).

Additionally, Afternoon Loafing is not significantly related to job productivity. This means that disregarding the amount of loafing being conducted in the afternoon, it does not appear to directly increase nor decrease employees' productivity. This surprising result, again, contradicts the past literature which is divided into two spheres, the ones that posit loafing impact productivity negatively (Bock & Ho, 2009; Dixon, 2005; Liberman et al., 2011; Lim, 2002; Liu & Kuo, 2007; Sullivan et al., 2013; Weatherbee, 2010), and the ones that argue its positive effects (Coker, 2013; Messarra et al., 2011; Moqbel et al., 2013). However, if job satisfaction is lower in the afternoon and this does lead to loafing, then it likely has a simultaneous negative effect on productivity as well.

Other unexpected findings revealed by this model were that loafing during breaks does not appear to have any effect on either job satisfaction or job productivity. This, though, seems reasonable because breaks are considered by most employees to be a pause between work activities, and thus neutral from job related aspects.

6.4.2 THE EFFECT OF THE TYPE OF LOAFING ACTIVITY ON JOB SATISFACTION AND JOB PRODUCTIVITY
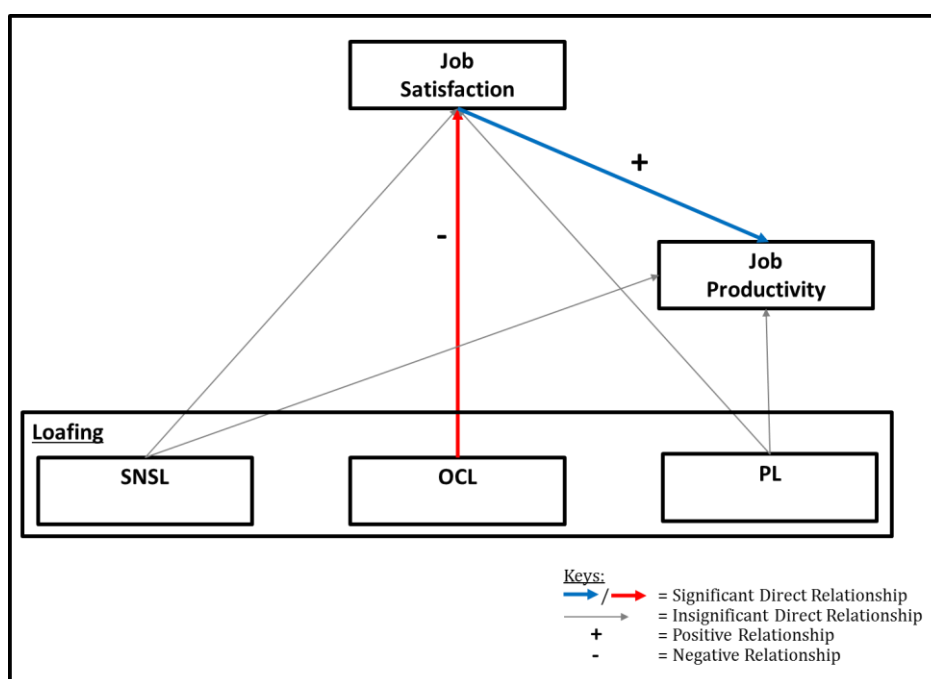
Figure 6.4. The Effect of the Type of Loafing Activity on Job Satisfaction and Job Productivity

A review of past studies on employee's loafing behaviour and its impact on employee's productivity and satisfaction suggested that in general, organisations' attitudes towards any kinds of loafing activities tend to be negative since they consider it as counterproductive behaviour, and thus to be avoided (Bock & Ho, 2009; Gaudin, 2009; Hallett, 2002; Liberman et al., 2011; Lim & Chen, 2012; Messarra et al., 2011; Weatherbee, 2010). The findings of this study disagree with this somewhat as the study found that different types of loafing affect job productivity and job satisfaction differently.

The second model found that the extent of SNS loafing has no significant direct relationships with either employees' productivity or their satisfaction level. Similar results were also found for physical loafing in which it has no significant relationships with job productivity and satisfaction. These outcomes suggest that regardless of the amount of SNS loafing and physical loafing employees conduct, it does not in general affect their level of satisfaction or productivity. These findings are not consistent with the majority of existing studies on loafing behaviour which state that loafing activities always have influence on job satisfaction and productivity whether positively or negatively (Douthitt & Aiello, 2001; Ellison et al., 2007; Gaudin, 2009; Lim & Chen, 2012; Messarra et al., 2011; Urbaczewski & Jessup, 2002). This discrepancy can most likely be explained by these past studies evaluating the type of loafing activities separately, whereas this thesis evaluated them collectively.

Furthermore, in regards to SNS loafing, the present study's findings resonate with Moqbel's (2013) study which suggested that there is no direct effect between the use of Facebook during office hours with employees' performance. Since these authors was assessed job performance broadly, the statement reflects the productivity and satisfaction elements as well. Accordingly, it is expected that notwithstanding the choice of SNS account that employees use to loaf at work, their level of satisfaction and productivity will not necessarily increase or decrease. Moreover, the daily SNS loafing found here was only around 9.7 minutes per day on average[18]. This is relatively small in comparison to other loafing which potentially is the explanation for its insignificant relationships to job productivity and satisfaction. Therefore, this type of loafing should necessarily not be encouraged nor condemned.

In contrast to the other two loafing activities, this model suggests that OCL activities can have a significant negative relationship with job satisfaction. This means employees engaging in cyber-loafing activities other than SNS are less likely to feel satisfied with their jobs. The likely interpretation is that the causality is reversed, with employees who feel dissatisfied with their jobs are more likely to conduct OCL activities. This does not match previous findings, which identified a strong positive influence between loafing behaviour and job satisfaction, whether that was in a form of providing mental breaks (Coker, 2013) or improving employee's morale (Lim & Chen, 2012).

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[18] See Table 5.12.

However, these studies could also not assess the direction of causality since all constructs were measured simultaneously.

6.4.3 THE INFLUENCE OF THE COMBINATION OF TIME OF LOAFING AND TYPE OF LOAFING ACTIVITY ON JOB SATISFACTION AND JOB PRODUCTIVITY
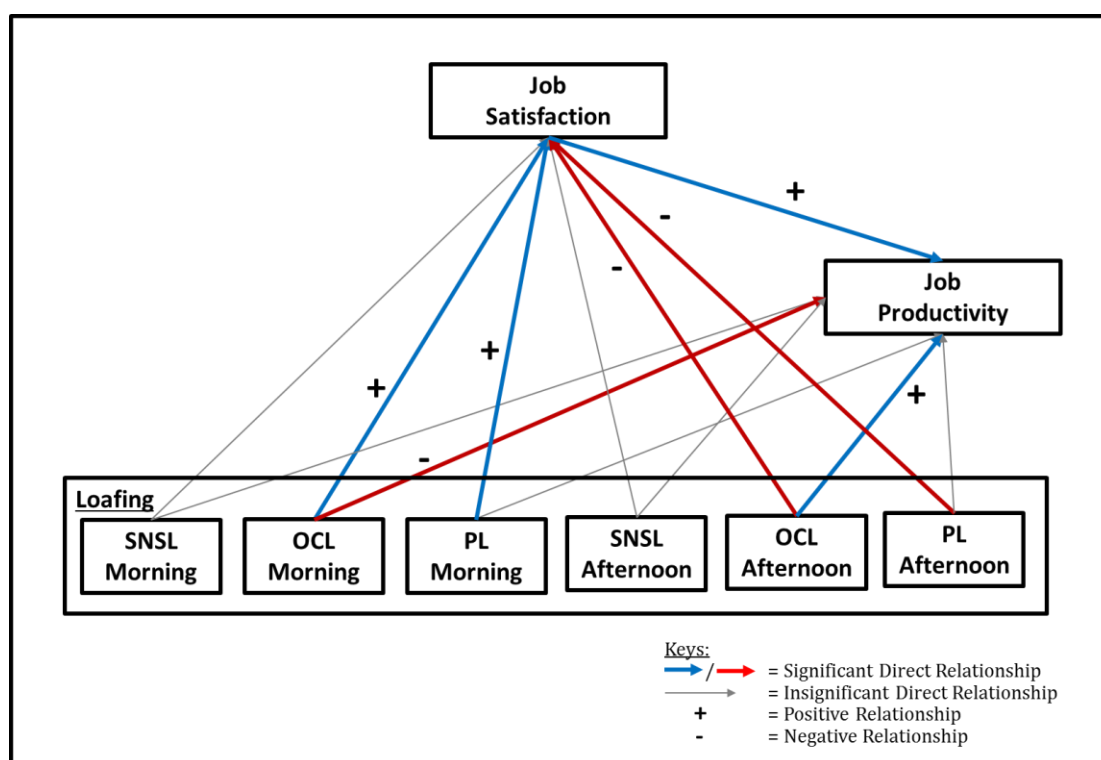
Figure 6.5. The Influence of the Combination of Time of Loafing and Type of Loafing Activity on Job Satisfaction and Job Productivity

This third model is the amalgamation between the time and type of loafing so that the impact of certain kinds of loafing in particular time slots can be assessed. The results from this amalgamation elaborate on and support the findings on previous models.

Specifically, with the other types of cyber-loafing activities (OCL), when it was examined broadly, it directly and negatively impacted job satisfaction. However, the more detailed examination reveals that the negative relationship with job satisfaction actually only occurs when this type of loafing is conducted in the afternoon. If it is being carried out in the morning, OCL seems to make employees feel more satisfied with their

jobs. Furthermore, in the second model, OCL appears to have no significant relationship to job productivity. Again, in the more detailed model, it reveals that OCL may indeed have significant relationships with job productivity. The more OCL activities conducted in the morning, the less productive employees become. However, if it is done in the afternoon, a more positive association appears present.

As there has been no studies evaluating the impact of OCL activities in certain time slots, no comparison against the existing literature can be made on these current findings. Nonetheless, this finding is congruent with previous studies on positive impacts of OCL activities on job satisfaction as it matches views that they can give informal mental breaks and improve employees' morale (Coker, 2013; Lim & Chen, 2012) as well as their negative impact on job productivity (Bock & Ho, 2009; Liberman et al., 2011). As the extent of OCL activities did not seem to differ greatly between the morning and afternoon, it is difficult to surmise why the results were reversed in the afternoon, although if satisfaction levels vary during the work day, then this may provide a partial explanation.

As for the physical loafing, interesting findings appeared when it was analysed to a greater extent. Broadly, physical loafing has no significant impact on either job satisfaction or job productivity. However, the more detailed approach shows that physical loafing in the morning in fact has a significant direct positive relationship with job satisfaction, whereas if it is being conducted in the afternoon its relationship with job satisfaction is again reversed. Thus, again, a more aggregate analysis across the entire workday hides the potentially different relationships between time periods.

Past studies, however, have not fully evaluated any link between physical loafing behaviour and the time of its occurrence, and thus, no comparison to the past literature can be made on these current findings. Nevertheless, this finding is in agreement with Bock and Ho's (2009) study on the positive impact of physical loafing in improving bonding between co-workers.

6.5 CONTRIBUTIONS

6.5.1 THEORETICAL CONTRIBUTIONS

This study contributes to the existing management literature by providing new insights on the topic of loafing, job satisfaction, and job productivity, especially in regards to the SNS phenomenon. Based on the key findings, this study makes theoretical contributions through: (1) further confirming the effect of job satisfaction in relation to job productivity; (2) validating the concept of autonomy in terms of job satisfaction; (3) providing new evidence that on the topic of autonomy in general and work-scheduling autonomy facets, autonomy does not affect job productivity nor loafing behaviour; and (4) testing three types of loafing activities collectively for their impacts on job satisfaction and job productivity. These theoretical contributions suggest that the gap highlighted in Chapter One has been at least partially filled. Furthermore, the findings of the present study demonstrate support for the generalisability of the previously measurement instruments for the core constructs in the cultural context of New Zealand.

The other theoretical contribution that this study made was the finding that SNS loafing has no influence on both job productivity and satisfaction. This is different than the earlier studies which are assertive that SNS loafing has an influence to employee's productivity and satisfaction, either negative or positive. Future study may take this novel revelation into consideration when conducting research on loafing behaviour. Furthermore, it is quite probable that this result was due to the fact that nowadays, being engaged in SNS activities while doing something else (multitasking) is very natural in everyone's life, thus, this kind of activity no longer gives a prominent effect. This potential development could perhaps be an opportunity for an exploratory study in the future.

Additionally, the present study found that physical loafing has no influence on employee's productivity. This discovery may be taken into consideration when examining loafing behaviour in future studies.

This study also suggests that employees' satisfaction may impact on loafing behaviour differently during morning and afternoon timeframes. This result indicates that there may be a potential that employees' level of satisfaction towards their job may

fluctuate throughout the day. This is quite the opposite of the general belief that employees' level of satisfaction is consistent on a daily basis and can only change after a longer period of time (i.e. monthly or yearly), in which can be a possibility for a future study (Brayfield & Rothe, 1951; Hackman & Lawler, 1971; Hackman & Oldham, 1975; Smith et al., 1969).

6.5.2 MANAGERIAL IMPLICATIONS

Despite the common belief that loafing behaviour brings negative impacts to organisations, this study reveals it may also yield positive benefits in some situations. Therefore, deeper understanding of loafing behaviour in relation to job satisfaction, job productivity, and autonomy, as well as the effects of different types of loafing at different times, is essential for management practitioners if they are to attempt to harness each components' full potential. The findings here could change managerial or supervisor perspectives and judgements when finding their employees doing activities that are not related to work.

One of the keys finding of this thesis is the positive relationship between job satisfaction and job productivity. Having acknowledged this, the management should aim to ensure that employees feel satisfied with their jobs should they want their employees to work more productively. The other findings, such as the direct positive relationship between autonomy and job satisfaction as well as the potential indirect positive link between autonomy and job productivity, suggest management be encouraged to give their employees autonomy where possible, due to its significant positive relationship with job satisfaction.

Another implication from this thesis was the knowledge for employees about their own loafing activities. The findings here indicate that different kinds of loafing and the time occurrence of these will result in different impacts. First, any kind of loafing activities in the morning appear beneficial in increasing job satisfaction. Furthermore, apart from checking the SNS accounts, loafing in the afternoon may be symptomatic of lower job satisfaction although it needs to be established whether satisfaction levels tends to differ across the day due to factors such as fatigue or upcoming deadlines. Having such information will hopefully help employees become more aware of their loafing behaviour and aid them in making more conscious decisions about it. In short,

should they have to loaf, they can perhaps pick the activity and time most appropriately so it can benefit both them and their employers.

Furthermore, the findings of the present study are expected to aid management practitioners in taking a formal stand or policy on loafing since it turns out that applying restrictions may not be necessary (Messarra et al., 2011), judging from the extent to which particularly SNS loafing occurs her and the benefits loafing behaviour can have for organisations.

6.6   LIMITATIONS

Despite the significant findings, there are several limitations to this study which should be acknowledged. First, with the limited timeframe for data collection, this study only obtained an adequate size sample. It was sufficient for the present study's analysis but not large enough to fully examine correlations between the types of loafing activities. Thus, it was not possible to establish whether clear patterns exist between loafing behaviour either across time frames or activities. Future studies could collect more data so that more in-depth investigation of any interrelationships could be undertaken. Without such patterns, it is difficult to generate measurement constructs with multiple indicators as would have been most desirable for SEM analysis. It would be interesting to see if such interrelationships between activities exist at particular times since a number of scholars believe that the existence of SNS may drive employees to become more inclined to do other types of cyber-loafing at work (Moqbel, Nevo, & Kock, 2013; Vitak & LaRose, 2011; Liberman, Seidman, McKenna, Buffardi, 2011).

Again due to the sample size, an analysis of a potentially curvilinear relationship of loafing activities on SEM could not be conducted. As a result, the researcher could not assess how much loafing time is acceptable before it shows a clear negative effect on productivity as has been proposed by Coker (2013).

A further limitation to this study is in regards to the questionnaire design, relating to the fact that the demographic questions were asked at the end, meaning that comparison regarding the respondents' demographic conditions between those who completed and those who did not complete the questionnaires could not be made. Future studies could potentially put the demographic questions in the beginning of the questionnaire so that such comparison can be made more readily. Moreover, future

researchers may consider researching to find out whether particular demographic groups loaf more.

Finally, this study suggests that loafing affects job satisfaction negatively but there is also another possible explanation that job dissatisfaction may lead to loafing, particularly cyber-loafing other than SNS. Due to the nature of this study, it cannot distinguish between these. Future study may examine these two options in regards to causality relationship to be able to decide which one applies.

6.7   CONCLUSION

This thesis has provided a comprehensive analysis and discussion on the impact of loafing activities on employees' job satisfaction and productivity. From a review of the literature, it was found that the phenomenon of loafing activities in general and SNS in particular in relation to job satisfaction and job productivity were still under researched. Thus, further empirical studies were conducted to improve our understanding in this area.

This thesis has successfully answered the research questions outlined earlier. SNS usage during work hours has proven to not have any effects on employees' job productivity and satisfaction, whereas other types of cyber-loafing apart from SNS should perhaps be avoided. Additionally, physical loafing appears better conducted in the morning. These results provide an interesting glimpse into how loafing behaviour has affected people at work. Furthermore, as it turns out, the SNS phenomenon is not particularly worrying in New Zealand's workforce both in terms of its duration and its likely effects.

The key findings of this thesis provide valuable insights for both management academics and practitioner regarding organisational behaviour. However, the researcher does not intend for the findings to be viewed in an overly prescriptive way. Rather, these findings highlighted that not all non-work related activities conducted during office hours are dysfunctional for organisations. Therefore, in designing workplace loafing policies, management should allow employees some leeway to loaf in the flexible and time appropriate manner.

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Appendices

Appendix One: INFORMATION SHEET

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

VICTORIA
UNIVERSITY OF WELLINGTON

Hi SNS users!

My name is Satya Duhita and I am a Masters student in the School of Management at Victoria University of Wellington doing a research project about the use of social networking sites (SNS) during work hours. This research is being conducted as part of the requirements for the completion of my degree and is the basis of my Master of Commerce thesis.

Recently, with the emergence of SNS such as Facebook, Twitter, LinkedIn, and Google+, friends and acquaintances have become more accessible and people can communicate more easily with each other almost instantaneously, including during office hours. This research aims to understand the extent of SNS usage during work hours and compare them with other internet activities as well as other breaks taken. This study will also investigate whether these activities affect other aspects of job performance.

I would really appreciate if you can help me by completing this anonymous questionnaire, which has been reviewed and approved by the VUW Human Ethics Committee. Due to the nature of the research, participants need to meet the following criteria: are you required to be physically at work during fixed working hours (e.g. 9am-5pm) performing tasks in an office setting (i.e. provided computers at work stations). You also need to have access to the internet during your work hours. Additionally, you need to have at least one SNS account.

I would greatly appreciate your assistance in my research. Participation is voluntary and by completing this survey, you give your consent for me to use the data. In the survey, you will be asked about whether different activities are undertaken using rating scales or check boxes. It will take about 10 minutes of your time to complete – and please provide answers to all questions. Furthermore, please only complete this survey once. To complete the questionnaire, please click here.

The data gained from this questionnaire will be kept strictly confidential and no individual-identifying details are being requested. Only my supervisor, Assoc. Prof. Urs Daellenbach, and I will have access to the data. The results of this research will be reported in an aggregate manner and available as a thesis in the University Library and Institutional Repository. They may also be published in academic or professional journals.

Many thanks for your interest and help in completing this research. If you find the survey interesting and know of other people who fit the criteria and might be willing to take part in this research, I would greatly appreciate it if you could forward this email to them. Should you have any queries, you could contact me or my supervisor using the contact details below.

Kind regards,

Researcher: Satya Duhita   **Supervisor**: Associate Prof. Urs Daellenbach
          School of Management   School of Management
          Victoria University of Wellington   Victoria University of Wellington

Phone: ██████████   Phone: ██████████
Email: Satya.Duhita@vuw.ac.nz   Email: urs.daellenbach@vuw.ac.nz

Appendix Two: FINAL QUESTIONNAIRE'S USER-INTERFACE

If respondent answers "No" to any of the questions, s/he will be directed to the following message before ending the survey:

If respondent answers "Yes" to all of the questions, s/he was allowed to continue to the next sections

In completing this survey, you will be asked questions focusing on your perceptions about **your job and your activities at work.** Most people complete the survey in approximately 10 minutes.

There are five sections in this questionnaire. Section 1 asks about your current job. Sections 2, 3, and 4 ask about your online and "offline" activities while you are at work. Section 5 asks for some demographic details.

[Previous] [Next]

SECTION 1

In this section, I will be asking about your current **overall satisfaction** towards your job. In answering the following questions, please think about the situations in your current job over the past three months.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I am very satisfied with my current job	○	○	○	○	○	○	○
My present job gives me internal satisfaction	○	○	○	○	○	○	○
My job gives me a sense of fulfilment	○	○	○	○	○	○	○
I am very pleased with my current job	○	○	○	○	○	○	○
I will recommend this job to a friend if it is advertised/announced	○	○	○	○	○	○	○
My job is usually interesting enough to keep me from getting bored	○	○	○	○	○	○	○
It seems that my friends are more interested in their job	○	○	○	○	○	○	○
I like my job better than the average worker does	○	○	○	○	○	○	○
I maintain a good balance between work and other aspects of my life	○	○	○	○	○	○	○
I am able to stay involved in non-work interests and activities	○	○	○	○	○	○	○
I have a social life outside of work	○	○	○	○	○	○	○
I am able to meet my family responsibilities while still doing what is expected of me at work	○	○	○	○	○	○	○
Overall, I am satisfied with my job	○	○	○	○	○	○	○

[Previous] [Next]

Next, I want you to indicate your assessments of your **productivity**. In answering the following questions, please think about the situations in your current job over the past three months.

	Never	Rarely	Occasionally	Sometimes	Frequently	Usually	Every time
I managed to plan my work so that it was done on time	○	○	○	○	○	○	○
I kept in mind the results that I had to achieve in my work	○	○	○	○	○	○	○
I had trouble setting priorities in my work	○	○	○	○	○	○	○
I was able to separate main issues from side issues at work	○	○	○	○	○	○	○
I was able to perform my work well with minimal time and effort	○	○	○	○	○	○	○
I was able to meet my appointments	○	○	○	○	○	○	○
Collaboration with others went well	○	○	○	○	○	○	○
Communication with others led to the desired result	○	○	○	○	○	○	○
I took the initiative when something had to be organised	○	○	○	○	○	○	○
I started new tasks myself, when my old ones were finished	○	○	○	○	○	○	○
I was open to criticism of my work	○	○	○	○	○	○	○
I tried to learn from the feedback I got from others on my work	○	○	○	○	○	○	○
I took on challenging work tasks, when available	○	○	○	○	○	○	○
I worked at keeping my job knowledge up-to-date	○	○	○	○	○	○	○
I worked at keeping my job skills up-to-date	○	○	○	○	○	○	○
I was able to cope well with difficult situations and setbacks at work	○	○	○	○	○	○	○
I recovered fast, after difficult situations or setbacks at work	○	○	○	○	○	○	○
I came up with creative solutions to new problems	○	○	○	○	○	○	○

Previous   Next

The next questions ask about your **autonomy** at work. In answering the following questions, please think about the situations in your current job over the past three months.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The job allows me to make my own decisions about how to schedule my work	○	○	○	○	○	○	○
The job allows me to decide on the order in which things are done on the job	○	○	○	○	○	○	○
The job allows me to plan how I do my work	○	○	○	○	○	○	○

The following questions are also related to **autonomy.** In answering the following questions, please think about the situations in your current job over the past three months.

	None	Somewhat	Moderately	Quite a bit of	A great amount	An extraordinary amount of	All
The job gives me a chance to use my personal initiative of judgement in carrying out the work	○	○	○	○	○	○	○
The job gives me considerable opportunity for independence and freedom in how I do the work	○	○	○	○	○	○	○
How much autonomy is there in your job?	○	○	○	○	○	○	○

This is the end of Section 1 of the questionnaire. Please continue on to Section 2.

Previous   Next

SECTION 2

In this section, I am interested in your **Social Networking Sites (SNS) usage pattern** during a typical day while you are at work. Again, please refer to your work situations in your current job over the past three months.

Which of the following SNS do you use regularly? (You may choose more than one).

☐ Facebook (including the messenger service)   ☐ My Space

☐ Twitter   ☐ Badoo

☐ LinkedIn   ☐ Other (Please specify) [_____]

☐ Google+

Previous   Next

How often do you access your Facebook (including the messenger service) at work in general?

- ○ Less than once a month
- ○ Once a month
- ○ 2-3 times a month
- ○ Once a week
- ○ 2-3 times a week
- ○ Daily

Please indicate when and how often per day you check your Facebook (including the messenger service)?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do check					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How do you normally access your Facebook (including the messenger service) at work?

- ○ Office computer
- ○ Office smart phone
- ○ Personal smart phone
- ○ Other

Previous   Next

Does your work allow you to have SNS access?

○ Yes

○ No

○ Not sure / Do not know

Does your work have any written regulation regarding SNS access?

○ Yes

○ No

○ Not sure / Do not know

This is the end of Section 2 of the questionnaire. Please continue on to Section 3.

| Previous | | Next |

SECTION 3

In this section, I will ask you questions about your **other non-work related online activities** such as visiting news, sports, investment, and entertainment websites, as well as online shopping, and downloading non-work related information while you are at work. Each question will ask you about a specific type of activity or website, please respond accordingly. Again, please refer to your work situations in your current job <u>over the past three months</u>.

How often do you access or do the following activities at work generally?

	Never	Less than Once a Month	Once a Month	2-3 Times a Month	Once a Week	2-3 Times a Week	Daily
News websites	○	○	○	○	○	○	○
Download non-work related information	○	○	○	○	○	○	○
Online shopping	○	○	○	○	○	○	○
Online gaming	○	○	○	○	○	○	○
Non-work related e-mail	○	○	○	○	○	○	○
Online banking	○	○	○	○	○	○	○
Other non-work related websites	○	○	○	○	○	○	○

| Previous | | Next |

How often per day do you visit **news websites** while you are at work?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do check					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you **download non-work related information (e.g. pictures, files, songs)** while you are at work?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do this					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you **engage in online shopping activities** while you are at work?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do this					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you **engage in online gaming activities (e.g. Fancy Football, Minecraft etc)** while you are at work?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do this					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you **check, send, and receive non-work related e-mail** while you are at work?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do this					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you do **non-work related online banking (e.g. paying personal bills)** while you are at work?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do this					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you visit **other non-work related websites (e.g. sports, investment, entertainment, etc)** while you are at work?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do check					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

Previous		Next

How do you normally access the activities above at work? (You may choose more than one)

	N/A	Office computer	Office smart phone	Personal smart phone	Other
News websites	☐	☐	☐	☐	☐
Downloading non-work related information	☐	☐	☐	☐	☐
Online shopping	☐	☐	☐	☐	☐
Online gaming	☐	☐	☐	☐	☐
Non-work related e-mail	☐	☐	☐	☐	☐
Online banking	☐	☐	☐	☐	☐
Other non-work related websites	☐	☐	☐	☐	☐

This is the end of Section 3 of the questionnaire. Please continue on to Section 4.

Previous		Next

SECTION 4

In this section, I will be asking about your **non-work "offline" activities** which occur in your office workplace. Each question will ask you about a specific type of activity, please respond accordingly. Again, please refer to your work situations in your current job <u>over the past three months</u>.

In general, how often do you do the following activities at work?

	Never	Less than Once a Month	Once a Month	2-3 Times a Month	Once a Week	2-3 Times a Week	Daily
Social conversation	○	○	○	○	○	○	○
Receive non-work related visits	○	○	○	○	○	○	○
Daydream	○	○	○	○	○	○	○
Non-work related phone calls	○	○	○	○	○	○	○
Non-work related errands	○	○	○	○	○	○	○
Take breaks in between work tasks	○	○	○	○	○	○	○
Use applications on cellphone	○	○	○	○	○	○	○

How often per day do you have **social conversations** with co-workers, clients, or work acquaintances about non-work related issues (e.g. sports, family, children, travel, television shows, and hobbies) while you are at work?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do this					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you **receive visits at work** from family, friends, or others for leisure-related issues?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do this					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you **daydream** while at work?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do this					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you **take or make non-work related phone calls** (e.g. making a hairstylist appointment) while at work?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do this					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you **run non-work related errands** (e.g. going to the bank, picking up a prescription at the pharmacy) while at work?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

	Regularity					Duration when you do this					
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you **take breaks in between work tasks** (e.g. snack breaks, stretch breaks) outside of the time you are entitled?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

| | Regularity | | | | | Duration when you do this | | | | | |
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

How often per day do you **use applications on cellphone**?

(Breaks refer to either one or two paid 10 minute breaks and/or one unpaid 30 minute meal break).

If you select 'not at all', please select 0 minutes options in the duration column.

| | Regularity | | | | | Duration when you do this | | | | | |
	Not at all	Very rarely	Infrequently	Sometimes	Frequently	0 minutes	Less than 1 minute	1-2 minutes	3-5 minutes	6-10 minutes	More than 10 minutes
During the first part of your working day	○	○	○	○	○	○	○	○	○	○	○
During breaks (if any)	○	○	○	○	○	○	○	○	○	○	○
During the second part of your working day	○	○	○	○	○	○	○	○	○	○	○

This is the end of Section 4 of the questionnaire. Please continue on to Section 5.

Previous   Next

In which age group do you belong?

- ○ Under 20
- ○ 21-25
- ○ 26-30
- ○ 31-35
- ○ 36-40
- ○ Over 40

Are you a:

- ○ Male
- ○ Female

What type of organisation do you work at?

- ○ Business
- ○ Education
- ○ Government
- ○ Non-profit
- ○ Other (please specify) [   ]

Please indicate which of the following organisational levels best describes your current position?
Please add your job title in the box provided.

- ○ Middle management [   ]
- ○ Line management [   ]
- ○ Employee [   ]
- ○ Other [   ]

What is your employment status?

- ○ Part time
- ○ Full time

What is your working hour?

| Start | [   ] |
| Finish | [   ] |

[Previous]   [Next]

Do you have any other feedback about this questionnaire?

This is the end of the questionnaire. Please click on the next button if you wish to submit.

Previous   Next

Thank you for completing this survey.

If you find the survey interesting and know of people who fit the criteria and might be willing to take part of this research, I would appreciate it if you could forward the link to this questionnaire to them.

Appendix Three: LOAFING REGULARITY AND DURATION DATA

Table A1 Loafing Regularity Data Summary

SNS (SNSL), News Websites (OCL1), Download Non-work Related Information (OCL2), Online Shopping (OCL3)

Regularity Options	Activities Code / Value	SNS – SNSL Morning Respondent	Percent	SNS Breaks Respondent	Percent	SNS Afternoon Respondent	Percent	OCL1 Morning Respondent	Percent	OCL1 Breaks Respondent	Percent	OCL1 Afternoon Respondent	Percent	OCL2 Morning Respondent	Percent	OCL2 Breaks Respondent	Percent	OCL2 Afternoon Respondent	Percent	OCL3 Morning Respondent	Percent	OCL3 Breaks Respondent	Percent	OCL3 Afternoon Respondent	Percent
Not at all	0	26	15.2	9	5.3	10	5.8	27	15.8	26	15.2	23	13.5	89	52.0	76	44.4	79	46.2	94	55.0	77	45.0	85	49.7
Very rarely	1	29	17	22	12.9	29	17.0	27	15.8	27	15.8	40	23.4	48	28.1	46	26.9	46	26.9	47	27.5	41	24.0	40	23.4
Infrequently	2	27	15.8	16	9.4	20	11.7	25	14.6	20	11.7	20	11.7	15	8.8	24	14.0	17	9.9	16	9.4	29	17.0	25	14.6
Sometimes	3	50	29.2	59	34.5	66	38.6	32	18.7	53	31.0	54	31.6	19	11.1	24	14.0	28	16.4	10	5.8	18	10.5	11	6.4
Frequently	4	39	22.8	65	38.0	46	26.9	60	35.1	45	26.3	34	19.9	0	0.0	1	0.6	1	0.6	4	2.3	6	3.5	10	5.8

		Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD
		0	4	2.27	1.38	0	4	2.87	1.21	0	4	2.64	1.21	0	4	2.42	1.49	0	4	2.37	1.41	0	4	2.21	1.36	0	4	0.79	1.01	0	4	0.99	1.1	0	4	0.98	1.13	0	4	0.73	1.01	0	4	1.04	1.17	0	4	0.95	1.2

Online Gaming (OCL4), Non-work Related E-mail (OCL5), Online Banking (OCL6), Other Non-work Related Websites (OCL7)

Regularity Options	Code / Value	OCL4 Morning Respondent	Percent	OCL4 Breaks Respondent	Percent	OCL4 Afternoon Respondent	Percent	OCL5 Morning Respondent	Percent	OCL5 Breaks Respondent	Percent	OCL5 Afternoon Respondent	Percent	OCL6 Morning Respondent	Percent	OCL6 Breaks Respondent	Percent	OCL6 Afternoon Respondent	Percent	OCL7 Morning Respondent	Percent	OCL7 Breaks Respondent	Percent	OCL7 Afternoon Respondent	Percent
Not at all	0	167	97.7	167	97.7	164	95.9	30	17.5	29	17.0	25	14.6	54	31.6	46	26.9	48	28.1	58	33.9	39	22.8	44	25.7
Very rarely	1	3	1.8	3	1.8	3	1.8	29	17.0	27	15.8	34	19.9	56	32.7	39	22.8	58	33.9	32	18.7	38	22.2	36	21.1
Infrequently	2	0	0.0	0	0	1	0.6	28	16.4	22	12.9	30	17.5	21	12.3	33	19.3	26	15.2	32	18.7	27	15.8	37	21.6
Sometimes	3	1	0.6	1	0.6	2	1.2	51	29.8	56	32.7	53	31.0	28	16.4	38	22.2	31	18.1	37	21.6	46	26.9	42	24.6
Frequently	4	0	0.0	0	0	1	0.6	33	19.3	37	21.6	29	17.0	12	7.0	15	8.8	8	4.7	12	7.0	21	12.3	12	7.0

		Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD
		0	4	0.04	0.26	0	4	0.04	0.26	0	4	0.09	0.48	0	4	2.16	1.39	0	4	2.26	1.4	0	4	2.16	1.33	0	4	1.35	1.27	0	4	1.63	1.32	0	4	1.37	1.2	0	4	1.49	1.34	0	4	1.84	1.37	0	4	1.66	1.29

Social Conversation (PL1), Receive Non-work Related Visits (PL2), Daydream (PL3), Non-work Related Phone Calls (PL4)

Regularity Options	Code / Value	PL1 Morning Respondent	Percent	PL1 Breaks Respondent	Percent	PL1 Afternoon Respondent	Percent	PL2 Morning Respondent	Percent	PL2 Breaks Respondent	Percent	PL2 Afternoon Respondent	Percent	PL3 Morning Respondent	Percent	PL3 Breaks Respondent	Percent	PL3 Afternoon Respondent	Percent	PL4 Morning Respondent	Percent	PL4 Breaks Respondent	Percent	PL4 Afternoon Respondent	Percent
Not at all	0	12	7.0	13	7.6	11	6.4	110	64.3	83	48.5	97	56.7	77	45.0	68	39.8	62	36.3	35	20.5	23	13.5	24	14.0
Very rarely	1	14	8.2	10	5.8	14	8.2	36	21.1	38	22.2	42	24.6	35	20.5	31	18.1	30	17.5	76	44.4	60	35.1	75	43.9
Infrequently	2	22	12.9	18	10.5	25	14.6	11	6.4	15	8.8	12	7.0	25	14.6	25	14.6	23	13.5	26	15.2	31	18.1	35	20.5
Sometimes	3	62	36.3	50	29.2	68	39.8	11	6.4	29	17.0	17	9.9	22	12.9	32	18.7	36	21.1	29	17.0	43	25.1	32	18.7
Frequently	4	61	35.7	80	46.8	53	31.0	3	1.8	6	3.5	3	1.8	12	7.0	15	8.8	20	11.7	5	2.9	14	8.2	5	2.9

		Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD
		0	4	2.85	1.2	0	4	3.02	1.22	0	4	2.81	1.15	0	4	0.6	0.99	0	4	1.05	1.25	0	4	0.75	1.07	0	4	1.16	1.31	0	4	1.39	1.39	0	4	1.54	1.45	0	4	1.37	1.08	0	4	1.8	1.2	0	4	1.53	1.04

Non-work Related Errands (PL5), Take Breaks in between Work Tasks (PL6), Use applications on cellphone (PL7)

Regularity Options	Code / Value	PL5 Morning Respondent	Percent	PL5 Breaks Respondent	Percent	PL5 Afternoon Respondent	Percent	PL6 Morning Respondent	Percent	PL6 Afternoon Respondent	Percent	PL7 Morning Respondent	Percent	PL7 Breaks Respondent	Percent	PL7 Afternoon Respondent	Percent
Not at all	0	77	45.0	34	19.9	60	35.1	45	26.3	33	19.3	84	49.1	77	45.0	75	43.9
Very rarely	1	59	34.5	40	23.4	57	33.3	29	17.0	27	15.8	25	14.6	18	10.5	21	12.3
Infrequently	2	20	11.7	34	19.9	31	18.1	28	16.4	22	12.9	21	12.3	17	9.9	25	14.6
Sometimes	3	13	7.6	48	28.1	21	12.3	45	26.3	61	35.7	26	15.2	31	18.1	35	20.5
Frequently	4	2	1.2	15	8.8	2	1.2	24	14.0	28	16.4	15	8.8	28	16.4	15	8.8

		Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD
		0	4	0.85	0.98	0	4	1.82	1.28	0	4	1.11	1.06	0	4	1.85	1.43	0	4	2.14	1.39	0	4	1.2	1.41	0	4	1.5	1.58	0	4	1.38	1.44

Table A2 Loafing Duration Data Summary

SNS (SNSL), News Websites (OCL1), Download Non-work Related Information (OCL2), Online Shopping (OCL3)

Options	Value (as a proportion of each day)	SNS Morning No.	SNS Morning %	SNS Breaks No.	SNS Breaks %	SNS Afternoon No.	SNS Afternoon %	News Morning No.	News Morning %	News Breaks No.	News Breaks %	News Afternoon No.	News Afternoon %	Download Morning No.	Download Morning %	Download Breaks No.	Download Breaks %	Download Afternoon No.	Download Afternoon %	Shopping Morning No.	Shopping Morning %	Shopping Breaks No.	Shopping Breaks %	Shopping Afternoon No.	Shopping Afternoon %
0 minutes	0	25	14.6	13	7.6	11	6.4	27	15.8	28	16.4	26	15.2	89	52	76	44.4	80	46.8	93	54.4	79	46.2	87	50.9
Less than 1 minute	0.5	38	22.2	18	10.5	36	21.1	13	7.6	6	3.5	12	7	29	17	30	17.5	29	17	16	9.4	11	6.4	13	7.6
1-2 minutes	1.5	50	29.2	41	24	56	32.7	42	24.6	35	20.5	55	32.2	27	15.8	31	18.1	29	17	16	9.4	11	6.4	17	9.9
3-5 minutes	4	32	18.7	51	29.8	38	22.2	53	31	56	32.7	54	31.6	20	11.7	21	12.3	24	14	18	10.5	27	15.8	16	9.4
6-10 minutes	8	12	7	29	17	17	9.9	26	15.2	28	16.4	16	9.4	4	2.3	9	5.3	7	4.1	19	11.1	22	12.9	24	14
More than 10 minutes	15	14	8.2	19	11.1	13	7.6	10	5.8	18	10.5	8	4.7	2	1.2	4	2.3	2	1.2	9	5.3	21	12.3	14	8.2
Min Max Mean SD		0	15 3.09 4.15	0	15 4.63 4.46	0	15 3.42 4.03	0	15 3.74 3.81	0	15 4.52 4.42	0	15 3.23 3.46	0	15 1.15 2.26	0	15 1.62 2.91	0	15 1.4 2.45	0	15 2.29 3.97	0	15 3.63 5.05	0 15 2.91 4.56

Online Gaming (OCL4), Non-work Related E-mail (OCL5), Online Banking (OCL6), Other Non-work Related Websites (OCL7)

Options	Value (as a proportion of each day)	Gaming Morning No.	Gaming Morning %	Gaming Breaks No.	Gaming Breaks %	Gaming Afternoon No.	Gaming Afternoon %	E-mail Morning No.	E-mail Morning %	E-mail Breaks No.	E-mail Breaks %	E-mail Afternoon No.	E-mail Afternoon %	Banking Morning No.	Banking Morning %	Banking Breaks No.	Banking Breaks %	Banking Afternoon No.	Banking Afternoon %	Other Morning No.	Other Morning %	Other Breaks No.	Other Breaks %	Other Afternoon No.	Other Afternoon %
0 minutes	0	167	97.7	167	97.7	164	95.9	31	18.1	29	17.0	25	14.6	54	31.6	46	26.9	48	28.1	58	33.9	39	22.8	43	25.1
Less than 1 minute	0.5	1	0.6	2	1.2	2	1.2	33	19.3	23	13.5	31	18.1	31	18.1	24	14.0	34	19.9	14	8.2	13	7.6	19	11.1
1-2 minutes	1.5	1	0..6	1	0.6	0	0	52	30.4	52	30.4	61	35.7	51	29.8	53	31.0	55	32.2	43	25.1	37	21.6	46	26.9
3-5 minutes	4	2	1.2	1	0.6	1	0.6	40	23.4	43	25.1	37	21.6	32	18.7	38	22.2	31	18.1	40	23.4	49	28.7	41	24.0
6-10 minutes	8	0	0	0	0	3	1.8	14	8.2	21	12.3	14	8.2	3	1.8	7	4.1	3	1.8	10	5.8	21	12.3	13	7.6
More than 10 minutes	15	0	0	0	0	1	0.6	1	0.6	3	1.8	3	1.8	0	0	3	1.8	0	0	6	3.5	12	7.0	9	5.3
Min Max Mean SD		0	15 0.06 0.45	0	15 0.08 0.68	0	15 0.26 1.58	0	15 2.23 2.47	0	15 2.77 2.98	0	15 2.41 2.78	0	15 1.43 1.68	0	15 2.01 2.61	0	15 1.45 1.65	0	15 2.35 3.24	0	15 3.54 4.03	0 15 2.82 3.65

Social Conversation (PL1), Receive Non-work Related Visits (PL2), Daydream (PL3), Non-work Related Phone Calls (PL4)

Options	Value (as a proportion of each day)	Social Morning No.	Social Morning %	Social Breaks No.	Social Breaks %	Social Afternoon No.	Social Afternoon %	Visits Morning No.	Visits Morning %	Visits Breaks No.	Visits Breaks %	Visits Afternoon No.	Visits Afternoon %	Daydream Morning No.	Daydream Morning %	Daydream Breaks No.	Daydream Breaks %	Daydream Afternoon No.	Daydream Afternoon %	Phone Morning No.	Phone Morning %	Phone Breaks No.	Phone Breaks %	Phone Afternoon No.	Phone Afternoon %
0 minutes	0	12	7.0	13	7.6	11	6.4	109	63.7	82	48.0	97	56.7	76	44.4	68	39.8	62	36.3	36	21.1	23	13.5	24	14.0
Less than 1 minute	0.5	9	5.3	7	4.1	14	8.2	9	5.3	8	4.7	9	5.3	35	20.5	30	17.5	32	18.7	38	22.2	28	16.4	36	21.1
1-2 minutes	1.5	38	22.2	22	12.9	39	22.8	13	7.6	9	5.3	13	7.6	34	19.9	39	22.8	37	21.6	58	33.9	61	35.7	66	38.6
3-5 minutes	4	74	43.3	49	28.7	65	38.0	21	12.3	25	14.6	27	15.8	17	9.9	22	12.9	26	15.2	32	18.7	44	25.7	36	21.1
6-10 minutes	8	26	15.2	44	25.7	30	17.5	12	7.0	12	7.0	16	9.4	5	2.9	8	4.7	9	5.3	5	2.9	13	7.6	9	5.3
More than 10 minutes	15	12	7.0	36	21.1	12	7.0	7	4.1	35	20.5	9	5.3	4	2.3	4	2.3	5	2.9	2	1.2	2	1.2	0	0.0
Min Max Mean SD		0	15 4.36 3.75	0	15 6.58 5.06	0	15 4.36 3.84	0	15 1.81 3.56	0	15 4.32 5.88	0	15 2.31 3.91	0	15 1.38 2.71	0	15 1.67 2.85	0	15 1.89 3.07	0	15 1.78 2.28	0	15 2.43 2.57	0 15 1.95 1.97

Non-work Related Errands (PL5), Take Breaks in between Work Tasks (PL6), Use applications on cellphone (PL7)

Options	Value (as a proportion of each day)	Errands Morning No.	Errands Morning %	Errands Breaks No.	Errands Breaks %	Errands Afternoon No.	Errands Afternoon %	PL6 Morning No.	PL6 Morning %	PL6 Afternoon No.	PL6 Afternoon %	PL7 Morning No.	PL7 Morning %	PL7 Breaks No.	PL7 Breaks %	PL7 Afternoon No.	PL7 Afternoon %
0 minutes	0	80	46.8	35	20.5	62	36.3	43	25.1	32	18.7	84	49.1	75	43.9	75	43.9
Less than 1 minute	0.5	7	4.1	6	3.5	6	3.5	20	11.7	17	9.9	24	14.0	16	9.4	22	12.9
1-2 minutes	1.5	12	7.0	10	5.8	15	8.8	40	23.4	38	22.2	37	21.6	29	17.0	41	24
3-5 minutes	4	21	12.3	16	9.4	22	12.9	45	26.3	53	31.0	19	11.1	27	15.8	26	15.2
6-10 minutes	8	19	11.1	32	18.7	27	15.8	17	9.9	20	11.7	4	2.3	14	8.2	4	2.3
More than 10 minutes	15	32	18.7	72	42.1	39	22.8	6	3.5	11	6.4	3	1.8	10	5.8	3	1.8
Min Max Mean SD		0	15 4.31 5.74	0	15 8.29 6.31	0	15 5.35 5.94	0	15 2.78 3.37	0	15 3.52 3.89	0	15 1.29 2.47	0	15 2.46 3.92	0 15 1.48 2.51