BETTER, BUSIER, OR STRESSED OUT? EXPLORING SOCIAL MEDIA-INDUCED TECHNOSTRESS IN A SALES CONTEXT

By

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ABSTRACT

BETTER, BUSIER, OR STRESSED OUT? EXPLORING SOCIAL MEDIA-INDUCED TECHNOSTRESS IN A SALES CONTEXT

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In this dissertation the "salesperson–technology environment interaction model" is deployed to explore the stress experienced by salespeople while using social media for work. Even though social media has numerous benefits for salespeople, an increasing number of salespeople perceive technology use as a source of stress, (i.e., technostress). Since such technostress can decrease employees' well-being (Tarafdar et al., 2015), it is important to understand what creates it. Drawing on the transaction based-model of stress (Lazarus, 1984) this dissertation investigates the direct effect of social media technology use as an antecedent of technostress, examines the stress imposed by the use of social media on role overload and work exhaustion, as well as the indirect effect on job satisfaction and turnover intention. Further, this research seeks ways to mitigate the negative impact of social media-induced technostress. This dissertation contributes to the technostress and sales literature by revealing that social media technology use such as using social media to prospect, to improve salesperson's relationship with customers, etc… exacerbates social media-induced technostress, which leads directly to role overload and work exhaustion, and indirectly causes lower job dissatisfaction and higher turnover intentions.

Keywords: social media-induce technostress, role overload, work exhaustion, job satisfaction, turnover intention, technology self-efficacy.

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CHAPTER 1

Introduction

A sales job, by nature, is one of the more stressful jobs in business. Salespeople are susceptible to stress (Tanner et al., 1993; Sparks et al., 2001) due to several job-related circumstances including: (1) the boundary roles they play, (2) the multiple internal and external groups they service, and (3) the dynamic environment in which they operate (Tarafdar et al., 2014). In addition, they are on the frontline gathering important customer and competitor data that facilitate sales and marketing decisions. Salespeople are also involved in building and managing customer relationships. These demands have fueled sustained growth in demand for technological tools such as salesforce automation (Engle and Barnes, 2000) and customer relationships management (Mithas et al., 2005).

Recently, sales researchers have examined salesforce use of social media (Itani et al., 2017; Agnihotri et al., 2016). These researchers suggest that social media technologies are not a replacement for existing sales technology but are, instead, complementary to existing sales technology, "augmenting the value of each interaction with the customer, existing or future" (Andzulis et al., 2012, p. 308). Using social media in sales (i.e., social selling) is a relatively new but growing phenomenon. Social selling is referred to by Agnihotri et al., (2012) as "a professional selling practice that is predicated on the strength of social media allies within a social enterprise" (p. 341), and by Trainor (2012) as a capability "to use knowledge about customers and the network of customer relationships to effectively navigate the firm's sales cycle" (p. 324). Social media is used with different technologies able to provide users with services such as networking, online search, and analytics (O'Reilly and Battelle, 2009).

In fact, sales managers are encouraging use of social media as a new element to the traditional promotion mix sales tools (Itani et al., 2017; Mangold and Faulds, 2009). At the salesperson level, use of social media is meant "to generate content (e.g., blogs, microblogs, wikis, etc.) and develop networks (e.g., social networks, online communities, etc.)" (Agnihotri et al., 2012, p. 334) for greater interaction with customers and prospects. Thus, the use of social media has been elevated from use at the individual level to the organization level. This dissertation is seeks to study salespeople professionally connecting through social media platforms.

Despite promised benefits, social media tools are fraught with pitfalls (Rangaraja et al., 2005; Brooks, 2015). According to the Pew Research Center (2016), 56% of employees who use social media platforms for work-related purposes reported that they experienced unpleasant feelings after using social media. Further, 30% of these individuals reported that social media distracts from the work they need to do.

Research in other disciplines indicates that there are negative consequences associated with technology usage in general (Moore, 2000), and with social media specifically (Maier et al., 2012). According to Maier et al., (2012) social media can negatively affect an individual's behavioral and psychological strain-outcomes due to social overload. In fact, has social media may decrease well-being when employees experience stress associated with its usage (i.e., technostress) (Delone and McLean, 2003; Tarafdar et al., 2015a).

In the context of technology-induced stress, recent research suggests that social media use in the workplace is associated with both the existence of technostress and technostress creators (Maier et al., 2015; Bucher et al., 2013; Anderson et al., 2014; Maier et al., 2012). However, despite the reported detriments of stress, it is not yet clear which characteristics or types of social media usage create stress.

Previous research in the IT literature shows social media-induced technostress occurs for a number of reasons. For example, Bucher et al. (2013) indicate that individuals may become overloaded by accessing and mentally processing information on social media. The use of social media may also result in individuals feeling overly connected and, as such, may function as a role stressor (Bucher et al., 2013; Fonner and Roloff, 2012).

In the sales technology literature, research on social media typically focuses on its benefits. Considerably less is known about the negative impact of social media use for work in a sales context. Thus, this dissertation draws from the transaction-based model of stress (Lazarus, 1966) to investigate the negative effect of such social media usage. The transaction-based model of stress treats the phenomenon of stress as a combinative interaction of "a stimulating condition" and "the individual's response to it" (Ragu-Nathan et al., 2008, p. 419). That is, stress is a transactional process in which stressors are stimuli an individual encounters and strain is that individual's response to the stressors (Cooper et al., 2001). *Stressors* are demands, conditions, events, or situations in the environment that can generate stress (Ragu-Nathan et al., 2008). When salespeople are faced with the task of integrating social media into their daily activities, the extent to which they perceive this to be stressful task can give rise to negative psychological or/and behavioral outcomes.

This dissertation investigates the salesperson-social media use interaction -a topic that has not been examined to date. Specifically, this dissertation proposes that different types of social media use will act as stressors (primary appraisal), creating social media-induced technostress and resulting in role overload (secondary appraisal) and work exhaustion (strain). Stress (role overload) combined with strain (work exhaustion) is likely to increase job dissatisfaction and turnover intentions. This dissertation also investigates the combination of stress (role overload) and strain (work exhaustion) as a mediator of the relationship

between social media-induced technostress and key constructs (i.e., job satisfaction and turnover intention). The moderating effect of salesperson technology self-efficacy on work exhaustion is also examined. Finally, this dissertation employs multi-group analysis to determine if pre-defined data groups (i.e., gender) exhibit significant differences in their perceptions of social media induced-technostress.

Research motivation

The motivation for this dissertation emanates from several limitations and gaps in the scientific knowledge that has accumulated on social media technology use in the sales literature. This dissertation has several objectives, including:

(1) extending the existing understanding of technostress by examining social media usage for work;

(2) extending the sales technology research by empirically validating the developed technostress framework and examining the relationship of social media with technostress;

(3) investigating in more depth the relationship of various types of social media use and social media induced-technostress;

(4) developing a preliminary theoretical framework examining the influence of social media-induced technostress on role overload, as well as work exhaustion;

(5) exploring the impact of social media-induced technostress on salesperson job-related outcomes;

6) seeking ways to mitigate the negative impact of social media induced-technostress; and,

(7) providing theoretical and managerial implications.

Identification of research question

A review of the technostress research presented in Chapter 2 reveals that previous work has predominantly focused on the antecedents and consequences of well-known

technology used for work purposes. In this context, *technology* is considered as a "*collection of information, processing, storage, network, and communication technologies*" (Ayyagari et al., 2011, p. A2) that are regularly used by individuals to perform work processes. A more general focus in sales research does not definitely ascertain whether the usage of one particular technology and the implementation of new mandated technology (e.g., social media) also stresses users, as pointed out by Tarafdar et al., (2015) and Morris and Venkatesh (2010) as an important research gap.

In addition, technology usage research posits that the context of technology usage matters, as it determines user behavior and antecedents (Venkatesh and Brown, 2001; Venkatesh et al., 2003). This implies that no research in the sales literature indicates whether other technology usage -such as the use of social media for work purposes- might be perceived as stressful (Table 1). It is important to understand whether technostress also matters in this type of usage. Thus, one research question is:

Research question 1: ***What types of technology lead salespeople to experience technostress?***

Prior sales technology research examines the effect of stress brought on by the use of technology (i.e., SFA and CRM technologies) on salespeople job related-outcomes such as performance and innovation (Tarafdar et al., 2011; 2014; 2015). However, this research does not take into account that the work situation of salespeople could also be stressful for many other reasons beyond technostress. For example, salespeople may play multiple roles that demand managerial responsibility, supporting colleagues, and serving multiple internal and external groups. Moreover, salespeople operate in a very dynamic environment (Tarafdar et al., 2014). This means that social media usage is only one stimulus that might contribute to a stressful environment. When focusing on other work-role stressors, the usage of social media might blur the boundaries between professional and private life (Ayyagari et al., 2011), and

lead to perceived role overload. However, not all causes of work-role stressors are grounded in social media usage. In contrast, several work-roles might also cause an individual to perceive the work-role stressor (Boyar et al., 2008). Due to this, this dissertation studies the role of social media-induced technostress in an overall stress model, including stressors that do not only focus on social media-induced stress (e.g., Moore, 2000a; 2000b). Given this, a second research question is:

Research question 2: ***What is the impact of social media induced- technostress on role overload?***

Context also influences an individual's psychological and behavioral reactions to stressors, given that individuals can stop using private and voluntary technology but must use technology for work purposes continuously (Brown et al., 2002). For social media-induced technostress research, this implies that mandated technology usage for work purposes may cause technostress and lead to negative job-related outcomes. In addition, the psychological and behavioral reactions to social media-induced technostress might go beyond stress. Hence, a third research question is:

Research question 3: ***What are the physiological reactions to stress when using social media for work?***

Technostress research indicates that individuals' perceptions of technostress might depend on individual personality traits such as extraversion, introversion, neuroticism, etc…(Maier, 2014). Individuals also differ in terms of other characteristics and differences such as age, gender, or experience (e.g., Ragu-Nathan et al., 2008). Prior technology research reveals that these characteristics influence users' perceptions and behaviors (McElroy et al., 2007; Devaraj et al., 2008), but their influence on the perception of and reactions to social

media have not yet been studied. To address this gap and determine whether some salespeople are predisposed to be more (less) susceptible to social media induced-technostress, it is necessary to study how individual characteristics and differences influence the consequences of social media induced-technostress. So, a fourth research question is:

Research question 4: ***What is the impact of salespeople characteristics and differences on the consequences of social media induced-technostress?***

There are several technology acceptance and continuance theories and models that consider individuals' attitudes and behaviors (see chapter 3). For instance, Davis (1989) established two widely used constructs relevant to social media usage: (1) perceived ease of use (PEU); and, (2) perceived usefulness (PU). PEU is conceptualized as "the degree to which a person believes that using a particular system would be free of effort" (p. 320). PU is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (p. 320). As they relate to social media, PEU and PU could both potentially impact the level of stress one may experience when using social media. Beyond usefulness and ease of use, there are other critical factors related to individuals' perceptions of social media use. According to the unified theory of acceptance and use of technology (Venkatesh et al., 2003), other constructs need to be taken into consideration when studying social media use. For instance, an important dimension of acceptance and use of technology is anxiety (i.e., I feel apprehensive about using a system). Compeau and Higgins (1995b) conceptualized anxiety as evoking anxious or emotional reactions when using technology. Even though technostress influences user perceptions and behaviors (Ragu-Nathan et al., 2008; Ayyagari et al., 2011), none of these models theorizes the role of social media in creating technostress. In order to test whether it is useful to study social media-induced technostress in such theories and models, research has to theorize the role of social media-induced technostress and evaluate whether social media induced- technostress

enhances our understanding of social media user behavior (e.g., strength of the effect of social media-induced technostress and comparing this with other perceptions included in existing theories and models). In response to this research gap, a fifth research question is:

Research question 5: ***What is the role of social media-induced technostress in existing technology acceptance and continuance theories and models?***

Organization of Dissertation

This dissertation is organized into the six chapters. Chapter 1 introduces this research and explains its importance. The motivation and objectives are also presented, as are research questions, and an overview of the dissertation. Chapter 2 reviews relevant literature on key constructs such as sales, stress, technology, social media. The review section identifies gaps in the literature and presents insight germane to developing the conceptual framework of this dissertation. Chapter 3 discusses and reviews theories utilized in the technostress literature. The theoretical foundation of this dissertation is then presented. Based on the literature review and theoretical foundation, chapter 4 develops the research model and hypotheses. Chapter 5 discusses the proposed research design, sampling procedure, research instruments, and analysis used in this dissertation. Following a discussion of results in Chapter 5, and the dissertation concludes by discussing the conclusions, implications, limitations, and future research in Chapter 6.

CHAPTER 2

LITERATURE REVIEW

Overview

To understand how social media induces stress, it is necessary to understand the conditions that create stress in general by, thoroughly examine the extant literature on stress and technostress. In this chapter the relevant literature is synthesized to develop a theoretical understanding of social media-induced technostress and identify gaps in existing research. This chapter first it presents various definitions of constructs of interest. Key points from synthesizing the literature are then summarized to key constructs, a research model, and hypotheses.

Stress

Approaches to studying stress

The concept of stress is as old as the presence of mankind. Stress has been broadly studied in several disciplines including psychology, management and organization behavior, and information systems as it constitutes an important aspect of business performance and overall success (Yan et al., 2013). In the academic field, Cannon (1929) was the first to investigate the mystery of stress. He found that physiological changes are the result of an association of stimuli with emotional arousal. Later, in medical terms, stress was identified as "the non- specific reaction of the body, either physical or psychological to any type of demand (Selye, 1946)." Selye (1946) introduced the term "GAS" (General Adaptation Syndrome) that explains how the body responds to environmental stimuli (Selye, 1946, p. 32). Thus, in general, stress is regarded as a state of acute mental or physical pressure that causes negative changes one's body.

According to Selye (1974), stress is a "set of physical and psychological response to adverse conditions or influences" Selys (1974) also differentiates between "eustress" and "distress"-situations where stress is perceived as a challenge or opportunity (i.e., good stress)- and "distress"- stress that creates threats or hindrances (Stich et al., 2017). As the focus of research for numerous studies across the decades, the broader construct of stress become synonymous with distress, and associated with negative stressors. Similarly, this dissertation focuses on distress in the technology environment.

In addition, the broad application of the stress concept in multiple fields–medical, behavioral, and social science research–has led to several definitions. For instance, in organizational behavior "stress" is defined from different perspectives: (1) as a stimulus (i.e., as independent variable); (2) as a response (i.e., a dependent variable); and, (3) as a transaction (i.e., a process) (Cooper et al., 2001; Jex et al., 1992; Rees and Redfern, 2000). There is a growing consensus that stress results from a transaction between the individual and the environment (Lazarus, 1990; Ragu-Nathan et al., 2008). In this transactional view, no one component (i.e., stimulus or response) can be designated as stress, because each must be understood within the context of the process.

From a response-based view, on the other hand, stress is identified only as a response to threatening stimuli. Hence, stress is viewed as a dependent variable and the focus is on the stress as reaction (Sutherland and Cooper, 1990). This view evolved from the early human representations of stress, which typically involved the use of phrases like "being under stress." This implies that it may not be possible to identify the phenomena of stress, only its consequences on the manifestation of stress (Sutherland and Cooper, 1990). Interestingly, this view has its roots in medicine, a discipline typically dealing with symptoms but not necessarily their causes.

Berg at al., (2010) have defined stress as adverse feelings such as anxiety, irritation, pressure, and fear that are caused by an imbalance between the individual's motivations and abilities, and the environment's requirements.

According to Roberts et al., (1997), stress can manifest itself psychologically, physically, and behaviorally. Psychological symptoms of stress could include anxiety, anger, and depression. Physical symptoms of stress may include headaches, and chest pain. Behavioral manifestations include abstention, lower productivity, and turnover.

In the context to this dissertation, the most relevant type of stress is job stress. Job stress is conceptualized in terms of the inconvenience experienced by a salesperson due to the work situation that arises from a mismatch between available resources and job demand (Lazarus and Folkman, 1984; Beehr, 2000). Parker and Decotiis' (1983) model focuses on organizational and job-related stress. A first-level outcome of the organization and job. According to theses researchers, "it is a feeling of discomfort that is separate and distinct from second-level outcomes or consequences of job stress" Parker and Decotiis (1983). The second-level outcomes "may include varying levels of satisfaction, organizational commitment, motivation, and performance." These authors treat job stress as multidimensional, comprised of time stress and anxiety. This dissertation focuses on the second-level outcomes of job stress.

Relative to employees in other professions, salespeople seem particularly prone to job stress (Tarafdar et al., 2014), due to several conditions of their job. First, there is the boundary spanning role of the sales job that is salient to the job performance of salespeople. Second, salespeople act as the contact point of both the organization and customers, and must satisfy the needs of both parties. Third, salespeople work with multiple internal and external groups (Brown and Peterson, 1993), creating a dynamic environment in which they

must operate. Finally, salespeople operate in an environment where there are potentially one or more direct competitors and some indirect competitors as well (Brown and Peterson, 1993; Goolsby, 1992; Tarafdar et al., 2014). These potential sources of stress-referred to as job stressors-play a vital role in impacting job outcomes of salespeople.

Considerable research addresses the causes and outcomes of job stress, because researchers and managers alike associate job stress with illness, adverse feelings regarding the job, and withdrawal behaviors (Selye, 1980). In other words, stress leads to strain which ultimately leads to job dissatisfaction and in turn, turnover intention.

Sager (1994) indicates that stress causes strain. According to Agnew's general strain theory, stress has two components: strain and its effect on individual behavior (Agnew, 1992). Fowler (2015) notes that strain is "the result of stress; stress being mutual action exerted by contiguous bodies or parts and strain the alteration of form or dimensions produced by it" (pp. 593-594).

Strain is known as a psychological reaction of the imbalance ratio between high demands, perceived overload and low level of control (Spreitzer et al., 1997). Hence, it depicts a psychological reaction that results from stressful situations (De Croon at al., 2004), and is associated with burnout or work/ emotional exhaustion (Koeske and Koeske, 1993).

In general, salespeople's strain may be related to two core aspects of any job: stressors and resources (Frese and Zapf, 1994; Schaufeli and Bakker, 2004). *Job stressors* refer to the degree to which the work environment contains stimuli that require sustained cognitive, emotional, or physical effort (Jones and Fletcher, 1996). *Job resources* are conceptually similar to coping options. They can be broadly conceptualized as a kind of energetic reservoir that an individual taps when s/he has to cope with job stressors (Hobfoll,

1989, 2002). Basically, salespeople who experience intense cognitive, emotional, or physical job stressors are likely to experience strain unless they have the benefit of abundant external cognitive, emotional, or physical resources.

Salespeople are subject to stress due to the dynamic sales environment in which the operate (Tarafdar et al., 2014). This lead to sustained growth in demand for technological tools such as salesforce automation (Engle and Branes, 2000) and customer relationship management (Mithas et al., 2005). However, these tools can cause stress that leads to the depletion of cognitive, emotional, or physical resources.

Studies related specifically to technostress appear in psychology and organizational behavior literatures. Psychology studies focus on understanding the relationship between individual factors (i.e., dispositional traits, states, and personality) and stress variables. Organizational behavior studies yield insight into the relationship among job characteristics, organizational factors, job-related roles, and stress variables. In this dissertation, insights from both streams of research are gleaned to understand social media-induced technostress. From the psychology, this dissertation examines technology self-efficacy, while form organization behavior, the focus is on examining perceptions of role overload due to growth use of social media technology by the salesforce.

Social media-induced technostress

Social media-induced technostress is conceptualized in terms of several technostress creators of stressful situations that are induced by using technology. These creators include: overload, invasion, complexity, and insecurity (Maier et al., 2012). The following sections discuss the phenomena of technostress and the factors that cause it.

Technostress

Technostress is defined as stress experienced by individuals due to the use of information and communications technologies (Ragu-Nathan et al., 2008). Clinical psychologist Craig Brod (1984) coined the term technostress and defined it as "a modern disease of adaptation caused by an inability to cope with new technologies in healthy manner." The concept of technostress first become popular in the early 1980's, when information technologies were beginning to proliferate and computers began to appear on our desktops (Clark and Kalin, 1996).

Technostress should not be confused with computer anxiety, though the two concepts are similar. *Computer anxiety* is conceptualized as "the tendency of individuals to experience a level of uneasiness over their use of a computer, which is disproportionate to the actual threat presented by the computer and the complex emotional reactions that are evoked in individuals who interpret computers as personally threatening" (Kase and Ritter, 2009, p. 1264). Technostress is an adaptation problem individuals experience when they are unable to manage or get used to information and computer technologies (Tarafdar et al., 2007). Groberman (2011) clarifies the difference between the two constructs as follows:

"While stress is caused by the triggering of a stress-inducing factor known as a stressor, anxiety is what happens when someone gets stressed out and has no reasonable root 'stressor' that can simply be removed. This is precisely why while anxiety is considered a legitimate mental disorder, stress is not."

To understand the phenomenon of technostress, it is important to identify the factors that create it (Ragu-Nathan et al., 2008). Technological tools can create stress in several ways. First, their capabilities for constant connectivity extend the regular work day (Mandel, 2005). Salespeople can be reached anywhere and anytime, and often are required to respond to the extent that not connecting becomes disquieting. This type of continual exposure leads

individuals to feel they are never free, and that their time and space have been invaded (Ragu-Nathan et al., 2008). Second, mobile communication tools such as laptops and smartphones have made it routine for salespeople to simultaneously handle different streams of information from internal and external sources. This has resulted in communication and information overload, where salespeople are exposed to more information than they can efficiently handle (Fisher and Wesolkowski, 1999).

In addition, salespeople feel that they are forced to work faster to cope with the increased processing requirements. The need for speed can result in what is known as "information fatigue" (Weil and Rosen, 1997) and "data smog" (Brilhart, 2004). Finally, while technology tools aid in multitasking and help salespeople accomplish more in less time, there are limits to these benefits - and the use of technology tools can push salespeople to exceed those limits. In general, it has been shown that excessive multitasking increase tension, diminishes perceived control, and decreases job satisfaction (Brilhart, 2004).

In the sales literature, Tarafdar et al., (2011) explores the relationships between technostress, role stress, technology self-efficacy and technology-enabled performance among business-to-business salespeople. Their findings show a positive association between technostress and role stress, and a negative relationship between role stress and performance. Further, they also report that technology self-efficacy can counter the increase in role stress due to technostress.

More recently, Tarafdar et al., (2014) examine relationships between technostress creators, role stress, technology-enabled innovation, and technology-enabled performance. They hypothesize that technostress adversely affects the technology-enabled performance of the salesperson through two distinct paths-one by increasing role stress and another by decreasing technology-enabled innovation. They further examine the role of factors such as

technology self-efficacy that mitigate these adverse effects. Their findings indicate that organizational technostress-inhibiting mechanisms negatively moderate the positive relationship between technostress creators and role stress, and technology self-efficacy dampens the negative association of technostress and technology-enabled innovation. The authors also find that technology-enabled innovation enhances technology-enabled performance.

Social media technology is often taken for granted and assumed to be mostly benefical; however, its advantages come at a cost (Orlikowski and Iacono, 2001; Kapoor et al., 2018). From the perspective of the user, using technology (i.e., social media) requires high physical, social, and cognitive skills (Ayyagari et al., 2011), potentially causing users to experience stress when using technology (Ragu-Nathan et al., 2008) and to perceive technostress. In organizations, using technology might cause technostress as users have to work with tight time schedules, are afraid of being replaced, and feel their personal life is invaded by technology (Tarafdar et al., 2010). These perceptions then cause users to feel exhausted, (Ayyagari et al., 2011), to develop intentions to quit (Ragu-Nathan et al., 2008) or to perform worse (Tarafdar et al., 2010). In private social media usage, one cause of technostress is high social connectivity (Kolb, 2008) that pressures individuals to check their mobile devices at very short intervals or respond to emails even during the night (Mazmanian et al., 2013). These demands may cause users to feel exhausted (Maier et al., 2014).

In summary, technologies such as social media might be a cause of stress despite their benefits. The focus of this dissertation is social media used for work-related tasks. Here, salespeople have to use an array of technologies, such as mobile technologies, network technologies, communication technologies, enterprise and database technologies, generic application technologies and collaborative technologies (Ayyagari et al., 2011). Because the

usage of these technologies is often mandated, individuals have choice but to use them, so any resulting technostress is an important phenomenon when using IT for work purposes (Ayyagari et al., 2011). The aim of this dissertation is to explain why some salespeople perceive technostress and how they react to it.

Social media technology use

Social media has been defined in several ways. It has been conceptualized as "a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content" (Kaplan and Haelein, 2010, p. 61).

Marketo (2010, p. 5) defines social media as "the production, consumption and exchange of information through online social interactions and platforms". In a selling context, examining customers as a key context for social media usage, Andzulis et al., (2012, p. 308) define social media as "the technological component of the communication, transaction and relationship building functions of a business which leverages the network of customers and prospects to promote value co-creation."

social media can also be defined in terms of the purposes it serves. In fact, Kietzmann et al., (2011) describe social media in terms of its functionality, including identity (i.e., the extent to which users reveal themselves), presence (i.e., the extent to which users know if others are available), sharing (i.e., the extent to which users exchange, distribute and receive content), relationships (i.e., the extent to which users relate to each other), groups (i.e., the extent to which users are ordered or form com- munities), conversations (i.e., the extent to which users communicate with each other), and reputation (i.e., the extent to which users know the social standing of others).

Bodnar and Cohen (2011) define social media as "a digital content and network-based interactions that are developed and maintained by and between individual." Social media has been described as a tool that "provides a way people share ideas, content, thoughts, and relationships online" (Scott, 2009, p.38).

In practice, social media refers to specific platforms through which people communicate, such as discussion forums, blogs, social networks, and multi-media sites, being some of the most popular Facebook, LinkedIn, Twitter, and YouTube (Bradley and Bartlett, 2011).

In sales technology, scholars have been studying the breadth of social media tools for use by salespeople, its main benefits and challenges, and the role that salespeople play in deploying social media strategies to increase performance and to build customer relationships (Guesalaga, 2016). Previous research has addressed the role and breadth of social media in sales (Andzuliset al., 2012; Marshall et al., 2012), its connection with customer relationship management (CRM), service behaviors and value creation (Agnihotri et al., 2012; Trainor, 2012), its influence on performance (Rodriguez et al., 2012; Schultz et al., 2012), and the motivation of sales employees to use social media technology (Levin et al., 2012). Although the acceptance and use of technology may vary to a great extent among salespeople, Marshall et al., (2012) asserts that salespeople are using social media more and more to demonstrate connectivity to customers and to their organization.

Of course, there is recognition that modern selling requires the use of technology capabilities–such as social media tools–as it affects buyer-seller relationships, the salesperson role, and the sales organization (Christ & Anderson, 2011; Marshallet al., 2012). However, as mentioned previously, recent research suggests that social media use can be associated with technostress and technostress creators (Maier et al., 2015; 2012; Anderson et al., 2014;

Bucher et al., 2013). Specifically, according to Brooks (2015), because "the use of social media is dependent on technology, it follows that higher levels of social media usage would lead to higher levels of technostress." In fact, social media the potential to dramatically affect every step in the sales process to better leverage a salesperson's network, including understanding and targeting the customer, approach, needs discovery, presentation, close, and follow-up (Andzulis et al., 2012). Thus, the type of use of social media can be an antecedent for social media induced-technostress.

Role stressor

Role overload

Roles refer to the behaviors and demands that are associated with the job an individual performs. Role stressors generally are conceptualized using three interrelated constructs: role conflict, role ambiguity, and role overload (Behrman and Perreault, 1984; Belasco 1966; Kahn et al.,1964).

Role conflict refers to incompatible demands of two or more members (e.g., one's boss and customers) on the individual (Kahn et al.,1964). This conflict may occur within a single role or between multiple roles held by an individual. Gerloff and Quick (1984) have identified four different kinds of role conflict: (1) Intra-sender role conflict (i.e., when expectations from an individual are mutually incompatible); (2) Inter-sender role conflict (i.e., when expectations from two or more people are incompatible); (3) Person-role conflict (i.e., when an individual's and organization's expectations and values conflict); and, (4) Inter-role conflict (i.e., when an individual occupies roles that have conflicting expectations or requirements).

Role ambiguity relates to the information a salesperson needs to perform his or her role adequately (e.g., effort instrumentalities) and his or her uncertainty about the expectations of different role set member (Behrman and Perreault, 1984; Belasco 1966; Kahn et al.,1964). Role ambiguity, then, refers to unpredictability in the consequences of one's role performance (Cooper et al., 2001), and information deficiency regarding expected role behaviors (Pearce, 1981).

Role overload has been conceptualized as the degree to which a person perceives him/ herself to be under time pressure because of the number of commitments and responsibilities one has in life (Reilly, 1982). Singh (1998) has defined role overload as "the number of different roles an employee has to fulfill. And it occurs when the salesperson perceives that the cumulative role demands exceed his or her abilities and motivation to perform a task." According to Jones et al., (2007) although role overload can be viewed as a form of role conflict, it is conceptually distinct from the two other role stressors (role ambiguity and role conflict). It is a perception that role demands are overwhelming relative to available capabilities and resources. Role overload is frequently manifested as a form of inter-sender conflict, in which individuals are expected to meet expectations of multiple role senders (i.e., one's boss and customers) (House, 1980; Kahn et al., 1964; Singh, 2000). Because role overload has been consistently found to influence job-related strain (Cooper, 1987; Narayanan et al., 1999), it is a central construct in this dissertation.

Based on the above discussion, this dissertation focuses on a salesperson's role overload, which become increasingly more demanding and complex (Jones et al., 2007). Salespeople deal with escalating customer expectations, more competition, rapidly changing technology, and the increasing usage of Internet by customers (Brown et al., 2005).

Role overload is conceptually distinct from *emotional exhaustion*, an outcome associated with an individual's inability to cope with sustained work demands (Singh et al., 1994). It is also a precursor to *depersonalization*, contributing to diminished feelings of personal accomplishment (Babakus et al.,1999). In keeping with the conceptualization of role overload by Brown et al., (2005), this study focuses on the cognitive demands placed on salespeople due to the nature of their job. Greater work demands can overload salespeople which lead to, for example, their using personal time to accommodate work demands (Duxbury and Higgins, 2008).

Some studies of role overload have examined working mothers (e.g., Joag and Gentry, 1991; Robinson and Milkie, 1998; Etaugh and Moss, 2001) who are integrated into the workforce while also upholding many traditional household responsibilities. Other role overload studies have included health care professionals (Peiro et al., 2001), consumer brand managers (Veloutsou and Panigyrakis, 2004), frontline employees (Boles and Babin, 1996), and accountants (Bartuner and Reynolds, 1983; Fogarty et al., 2000). Consistently, role overload has been found to have detrimental effects on employee well-being. This is because employees become more stressed due to increasing role demands, physical and mental health declines. Other undesirable results of role overload include lower organizational commitment and higher absenteeism due to illness (Duxbury and Higgins, 2001; Mulki et al., 2006). Other factors that contribute to additional work requirements in the workplace include: (a) the increasing prevalence of downsizing, brought about partly by the onset of a recession during the early 1990s; and, (b) the pervasiveness of technological change (Jones et al., 2007).

Salespeople and their organizations experience many pervasive negative effects of role overload. For example, poorer physical and mental health due to role overload leads to absenteeism and lower performance, which can lower enthusiasm for the job at hand

(Ivancevich et al., 1985). The impact of role stressors-such as role overload- on salesperson outcomes has been documented (Babakus et al., 1999; Gaines and Jermier, 1983; Lee and Ashforth, 1990; Singh et al., 1994; Lagace et al., 1993). In addition, overload tends to be subsumed by role stressors, such as role conflict and role ambiguity (e.g., Singh, 1998). In this study, the focus is on examining the effect of role overload as a stressor created by social media use on psychological outcomes in a sales context.

Strain

Work exhaustion

Scholars have addressed the phenomenon of work exhaustion in the literature through research focusing on tedium and job burnout. *Tedium* is defined as a state of physical, emotional, and mental exhaustion caused by involvement in demanding situations (Pines et al., 1981). On the other hand, a stream of research has focused on job burnout as an emotional exhaustion component (e.g., Jackson et al., 1986). Job burnout is related to the constant emotional pressure associated with highly demanding situations.

Even though job burnout has been used interchangeably with work exhaustion (Moore, 2000), work exhaustion is typically viewed as a construct emerging from job burnout (Sondhi et al., 2008). In addition, work exhaustion is related to the dimension of frustration caused by excessive distress and exhaustion, which is the result of excessive pressures on individuals (Jackson and Maslach, 1982; Pines et al., 1981).

Researchers suggest that tedium results from having too many negative features (pressure, conflicts, and demands) and too few positive features (rewards, acknowledgments, and successes) in one's environment (Kanner et al., 1978). Work exhaustion as a state arise from a boring, stressful, and frustrating work environment (Fujimoto et al., 2016), and is

considered to be the biggest consequence of occupational stress that negatively impacts the organizational and individual (Sondhi et al., 2008; Cooper et al., 2001). De Croon et al., (2004) consider strain such as work exhaustion as a psychological reaction to stressful situations.

In the organizational behavior and psychology literatures, researchers consistently have identified the following antecedents to work exhaustion and tedium: role conflict and role ambiguity (e.g., Burke and Greenglass, 1995; Jackson et al .,1986; Lee and Ash- forth, 1993a; Pines et al., 1981), interpersonal conflict (e.g., Leiter and Maslach, 1988; Pines et al., 1981), lack of autonomy (e.g., Jackson et al., 1986; Pines et al., 1981), and lack of rewards (e.g., Jackson et al., 1986; Pines et al., 1981).

Inspired by the Maslach and Jackson (1981)'s model, Schaufeli et al. (1995) developed a revised conceptualization of burnout, with the primary component of exhaustion (i.e., the depletion of mental resources) (Schaufeli et al.,1995). This dissertation utilizes Schaufeli et al.'s (1995) model and focuses on a specific form of work exhaustion in a sales-technology environment and the depletion of mental resources.

Job-related outcomes

Job satisfaction

Job satisfaction is one of the most widely studied variables in sales literature (Brown and Peterson, 1993). Past research defines job satisfaction as a positive emotional state that reflects an affective response to the job situation (Locke, 1976). Job satisfaction reflects the degree to which a person's wants, needs, or expectations are met at work (Cranny et al., 1992), and includes an overall assessment of job and job characteristics or assess employee

satisfaction across multiple facets of job (e.g., coworkers, pay, supervisors or customers) (Boles et al., 2003).

Walker et al., (1977) assert that job satisfaction may be both intrinsic (i.e., derived from internally mediated rewards such as the job itself and opportunities for personal growth and accomplishment) and extrinsic (i.e., resulting from externally mediated rewards such as satisfaction with pay, company policies and support, supervision, fellow workers, chances for promotion, and customers) (Walker et al., 1977). Other conceptualizations of job satisfaction highlight the emotional and affective state related to job and job environment characteristics. For instance, job satisfaction has been viewed as an attitudinal variable assessing how people feel about their job or aspects of their job (Spector, 1997), and also as a positive feeling about one's job resulting from an evaluation of these characteristics (Robbins and Judge, 2007, p. 65).

In sales literature, job satisfaction has been operationalized as a salesperson's affective state relative to several job facts. In other words, it is how a salesperson feels about the job, its role requirements, outcomes, promotion opportunities, and organizational feedback (e.g., Brown & Peterson, 1994; Singh et al., 1996; Walker et al., 1977).

According to Churchill et al., (1974) and Smith, (1969), both satisfaction and dissatisfaction are seen as a function of a relationship between what one wants from a job and what one perceives to be getting from the job. This dissertation adopts this definition.

In sales research, job satisfaction has been of particular interest to organizations because it has been linked to organizational commitment, turnover intentions, performance, role conflict and ambiguity (Brown and Peterson, 1993). Salesperson job satisfaction plays a central role in ensuring sales force productivity, improving salesperson performance (e.g.,

Babakus et al., 1996; Iaffaldano and Muchinsky, 1985) and enhancing customer satisfaction (Homburg and Stock, 2004, 2005). Therefore, a surfeit of work in management, applied psychology and organizational science has focused on identifying the antecedents of job satisfaction or dissatisfaction (Brown and Peterson, 1993; Dirks and Ferrin, 2002; Judge et al., 2002; Rhoades and Eisenberger, 2002). The result is the identification of several potential antecedents, such as stress and burnout (e.g., Burke and Greenglass, 1995; Wolpin et al., 1991; Maslach and Jackson, 1984a).

Turnover intention

Intention to leave appears to be an immediate precursor to actual quitting one's job (Tatt and Meyer, 1993). This notion is consistent with Fishbein's (1967) model of attitudes, intentions, and behavior, and intentions to leave are commonly endorsed in the literature as a predictor of turnover. According to Mobley (1982), turnover intention is a process in which changes, time, a series of actions or operations conducing to an end.

Turnover has been defined as the termination of membership in an organization by an employee who received monetary compensation from the organization (Mobley, 1982). Salespeople turnover has received substantial attention from researchers, indicating its significance in the sales field (Boles et al., 2012). According to Price (2001), turnover intention is the individual's willingness of voluntary permanent withdrawal from an organization. Turnover intention is positively linked with actual turnover (Bluedorn, 1982), thus, turnover intention is viewed as a prominent predictor of actual salespersons' turnover (Bigliardi et al., 2005).

Salesperson turnover represents a widespread induotry problem with estimates at double the average turnover rate of most industries (Richardson, 1999). To understand and ultimately seek ways to reduce the costs of turnover, we need to uncover factors related to

increased turnover. Prior research has identified several variables associated with salesforce turnover including job satisfaction (Park et al., 2015), organizational commitment (Park et al., 2015), ethical climate (Fournier et al., 2010; Jaramillo et al., 2006), stress (Podsakoff et al., 2007), and emotional exhaustion (Shin et al., 2013).

The Moderating effect of Technology self-efficacy

Technology self-efficacy

Self-efficacy has a theoretical foundation grounded in social cognitive theory and is defined as individual's beliefs in his/her capabilities to organize and execute the courses of action required to produce a given outcome (Bandura, 1989). Self-efficacy plays a role in the behavior individual chooses to demonstrate. If an individual believes that s/he is incapable of performing a particular task, then s/he may not attempt to carry out said action. According Bandura (2001), self-efficacy is a common theme in relation to motivation, mostly as a result of its power to predict individual's behavior.

Stajkovic and Luthans (1998b) regard self-efficacy as "an individual's confidence about his or her abilities to mobilize the motivation, cognitive resources, and courses of action needed to successfully execute a specific task within a given context." That is, self-efficacy beliefs allow someone to answer the question, "Can I do this?" "The this", of course, is situation–specific, and individuals may find self-efficacy beliefs varying from situation to situation. Table 2 provides a summary of the key constructs discussed in this dissertation.

CHAPTER 3
THEORETICAL FOUNDATION AND CONCEPTUAL FRAMEWORK

Overview

This chapter explains the relationships among the constructs of interest discussed in chapter 2. This dissertation investigates the causes of social media-induced technostress as well as, its impact on salespeoples' job related outcomes. In this chapter theories used in studying human behavior rooted in social psychology research are first described. Second, technostress research is discussed, following by the theoretical foundations of this dissertation. Finally, this chapter concludes with hypothesis development.

Technostress and social media technology theories

There are several theories used in studying human behavior rooted in social psychology research that are applicable here, including: (1) the Theory of Reasoned Action (TRA) (Ajzen and Fishbein 1980); (2) its extension, the Theory of Planned Behavior (TPB) (Ajzen 1991); (3) models and theories of IT acceptance and continuance research introduced in the following sections; and, (4) the transactional-based theory (Lazarus, 1984). Tables 3,4, and 5 explain each theory's definition and constructs and how they been adapted in studying social media usage and technostress.

Perhaps because using social media is the most common Internet-based activity (Pew Research Center 2018), ample sales research has examined the phenomenon (e.g., Itani et al., 2017). While most current literature focuses on the benefits of using social media in sales, there is a comparative lack of research on its negative effects, especially in the context of the work environment. Research has identified technostress as a critical negative impact of

contemporary technology. Thus, this dissertation applies transaction-based theory to the literature on social media and technostress. The basic premise is that social media in the workplace maybe a stressor, which induces technostress, and exacerbates work exhaustion, lead to job reduced satisfaction and turnover intentions.

Technology changes rapidly, forcing employees to constantly adapt. The process of adaption is can be taxing both physically and psychologically. Technostress is caused by changes in technology (Tacy, 2016), Which keeps accelerating. These changes are likely to heighten experienced technostress, along with the negative impacts.

Social media typically leads individuals to get work done quickly including, salespeople who are expected to be agile and productive. Thus, salespeople may use different social media tools to do more in less time. However, because technology is constantly evolving, individuals may feel prone to stay up to date with the latest applications, tools, and software, and adapt their methods and skills-leading to additional stress. In fact, these changes that require individuals to adapt have been found to increase stress (Bright et al., 2015).

Technostress Research

From a general point of view, technostress research studies how techno-stressors cause psychological and behavioral strain. Stressors are stimuli, events, or demands perceived by an individual, while techno-stressors are technology-induced stimuli, events or demands (Ragu-Nathan et al., 2008; Ayyagari et al., 2011). Such techno-stressors induce reactions among individuals, which are commonly called strain (Tarafdar et al., 2010; Ayyagari et al., 2011). Individuals may react psychologically to a techno-stressor by experiencing a reduction in their level of satisfaction (Ragu-Nathan et al., 2008; Ayyagari et al., 2011). Such an emotional response is called *psychological strain* (Tarafdar et al., 2010),

Techno-stressors may also cause individuals to react behaviorally, called *behavioral strain* (Tarafdar et al., 2010), as when an individual performs poorly due to some technology-induced stressful stimuli (Ragu-Nathan et al., 2008; Tarafdar et al., 2010). Interestingly, research suggests that psychological strain is significantly influences behavioral strain (Ragu-Nathan et al., 2008; Tarafdar et al., 2010).

Ragu-Nathan et al., (2008) conceptually developed and empirically validated an instrument to reveal why employees react with strain when using technology. In doing so, they identified five techno-stressors. First, *techno-overload* reflects the demand associated with employees working faster and longer because they use a certain technology. Second, *techno-invasion* identifies technology occurs due to a blurring of boundaries between the work and private domains. Third, *techno-complexity* is a phenomenon that relates to employees feeling unable to use technology due to a lack of skills. Fourth, *techno-insecurity* describes situations in which employees are afraid of losing their job due to technology. Fifth, *techno-uncertainty* occurs when changes in the organization cause uncertainty. This dissertation adapts and incorporates four techno stressors (i.e., techno-overload, techno-invasion, techno-complexity, and techno-insecurity) for their appropriateness for the nature of this research. Techno- uncertainty was eliminated because of the relevant given its focal point of the organization-related than the individual employee.

Theoretical foundation to understand social media–induced technostress

This dissertation draws upon the transactional-based model of stress. This theory provides a good fit for this research, as it incorporates and explains the components of social media-induced technostress phenomena.

Transactional-based model of stress

This dissertation draws upon the transactional-based approach to study stress (Lazarus, 1983). This theory posits that transactional views are more cognitive and focus on the dynamic relationship that occurs between individuals and their environment with respect to mental and emotional processes. Based on McGrath (1970)'s definition of stress as an "environmental situation that is perceived as presenting a demand which threatens to exceed the person's capabilities and resources for meeting it" (p. 1351), this dissertation regards social media-induced technostress as special instance of stress. Transactional views often place emphasis on the role of subjective perceptions of one's environment, which are more likely to acknowledge the possible impact of individual difference factors such as differences in coping, appraisal, personality, and locus of control. (Cox et al., 2000).

Several studies on the outcomes of stress are guided by the Transaction-Based Approach (Cooper et al., 2001a; Lazarus, 1966; Lazarus and Folkman,1984). These studies treat stress as a combination of a *stimulation condition* and the individual's *response* to it. The stimulation condition represents a *stressor*, which can be a certain condition, an event, demands or other stimuli to which an employee is exposed to in his/her work environment (Figure 1). Difficulty or ambiguity in a certain task (e.g., the use of social media) may be seen a *stressor* (Ragu-Natha et al., 2008), which may lead to *strain* in the form of behavioral, psychological, and physiological outcomes (Cooper et al., 2001a; Kahn and Byosiere 1992). Strain, in turn, may lead to *organizational outcomes* such as poor task performance, lack of creativity (Hackman, 1997), or absenteeism (Beehr, 1998; Nelson and Kletke, 1990).

Recall stress is "a combination of a stimulation condition and the individual's response to it" (Ragu-Nathan *et al.*, 2008, p. 419). Stress does not reside in the individual nor in the environment but rather in the relationship between them (Cooper e al., 2001). This

ongoing transactional process, where the demands of the environment exceed the person's capabilities creates stress (Cooper et al., 2001; Fieseler *et al.*, 2014).

The transaction-based approach includes four major components: (1) stressors, which are the events, stimuli, demands, or conditions that create stress encountered by individuals in the work environment as factors that create stress (Cartwright and Cooper, 1997); (2) strain which, refers to the behavioral and/or psychological outcomes of stress such as exhaustion and/or productivity; (3) organizational outcomes (i.e., the work-related outcomes such as absenteeism or performance that are influenced by strain); and, (4) situational and /or individual factors, (i.e., organizational and individuals mechanisms that can reduce the impact of stressors) (Cooper et al., 2001; Ragu-Nathan *et al.*, 2008). Transactional-based theory posits that the impact of a stressor can be buffered or reduced by *situational and /or individual factors* of the work environment (e.g., job redesign, stress management training, information sharing, social support, and counselling and assistance) (Davis and Gibson, 1994). Typically, stressors *increase* strain and s*ituational and /or individual factors* in turn *decrease* strain. Situational and /or individual factors can also influence organizational outcomes directly (Ragu-Natha et al., 2008, p. 419).

In the information system literature, a vast majority of studies have adopted the transaction model of stress in order to investigate and analyze the phenomenon of technostress (Ragu-Nathan *et al.*, 2008; Tarafdar et al., 2010; Hung et al., 2011; Fieseler *et al.*, 2014; Lei and Ngai, 2014; Yin *et al.*, 2014; Srivastava et al., 2015; Tarafdar et al., 2015). This theory aligns with the current research and provides a rich framework for understanding the components of social media-induced technostress phenomenon.

Based on social media's presence in B2B sales and the current dissertation's research goals, a conceptual model is presented in Figure 2. The dissertation builds upon the

transactional-based view of stress (Lazarus, 1983) to relate antecedents and consequences of technostress to a salesperson's social media use. Nine hypotheses are developed in a model based on prior academic research in sales. Figure 1 presents the conceptual basis for this dissertation.

Social cognitive theory

This dissertation also draws on social cognitive theory, which proposes that an individual's beliefs about how well s/he can perform a certain task shapes that person's attitude to that task (Bandura, 1982). Related to this, Stajkovic and Luthans (1998b) define self-efficacy as "an individual's confidence about his or her abilities to mobilize the motivation, cognitive resources, and courses of action needed to successfully execute a specific task within a given context." Self-efficacy is a central mechanism of self-regulation" people's beliefs in their efficacy influence the choices they make, their aspirations, how much effort they mobilize in a given endeavor, how long they persevere in the face of difficulties and setbacks, whether their thought patterns are self-hindering or self-aiding, the amount of stress they experience in coping with taxing environmental demands, and their vulnerability to depression" (Bandura 1991, p. 257).

Applying these constructs to the current research, psychological process operates as follows. Before an employee makes a choice and initiates effort, the employee tends to weigh, evaluate, and integrate information about their perceived capabilities. Expectations of personal efficacy determine whether an employee's coping behavior will be initiated, how much task-related effort will be expended, and how long that effort will be sustained despite disconfirming evidence. Especially relevant to human performance in organizations is that employees who perceive themselves as highly efficacious will activate sufficient effort. If that effort is well executed, it produces successful outcomes. On the other hand, employees

who perceive low self-efficacy are likely to cease their efforts prematurely and/or fail at the task.

In a sales technology context, technology self-efficacy represents "an individual's judgment about his or her ability to use various technology tools such as social media in the accomplishment of a task" (Tarafdar et al., 2011; 2014; Compeau and Higgin, 1995). Compeau and Higgin (1995) demonstrate a strong link between self-efficacy and individual reactions to computing technology. More recent, Tarafdar et al., (2014) found that technology self-efficacy of salespeople inhibits the negative effect of technology.

Hypotheses development

Social media technology use and social media-induced technostress

Most experts agree that sales activities are becoming more personalized, complex, and customer-specific. According to CSO Insights (2018), rising customer expectations, combined with a complex, and constantly changing selling world are driving the need for salespeople and sales organizations to evolve their sales processes and enablement to a more dynamic, strategic, and customer-centered approach. Towards that end, social media provides users with services such as networking, online search, and analytics (O'Reilly & Battelle, 2009). Further, research suggests social media has an impact on every step in the sales process, enabling salesperson to better leverage his network and improve performance (Andzulis et al., 2013).

Salespeople can use social media in any step of the selling process, from prospecting to follow-up (Andzulis et al., 2012). Social media channels such as Twitter may be used to prospect or find opportunities, while LinkedIn may assist in identifying names of true decision makers and buyers within an organization. And Facebook may help in building

awareness. The immediacy and availability of social networks foster relationships that may otherwise be slow to connect, as new contacts are easier to make and participation in industry-specific groups on social networks reduces the amount of screening that takes place in the formation of more traditional relationships (Quinton & Wilson, 2016). Thus, many sales organizations have integrated the use of social media into job functions of their salespeople (Wiersema, 2013). Several sales scholars have been encouraging even more social media integration (Itani et al., 2017).

Despite these benefits, social media is linked to technostress (Brooks and Califf, 2017; Maier et al., 2014). And because social media has different types of uses (Andzulis et al., 2012), this study explores how each type of use (monitoring event performance, target and communicate with customers, and building awareness, etc...) leads to different types of technostress (i.e., techno-overload). More specifically, this dissertation proposes the following hypothesis:

H1**: **The higher the use of social media for each sales activity, the higher the social media-induced technostress.

Social media-induced technostress, role overload, and work exhaustion

The role of salespeople in an organization has become increasingly more demanding and complex (Jones et al., 2007). Salespeople must deal with escalating customer expectations, more competition, rapidly changing technology, and the increasing usage of Internet by customers (Jones et al., 2005).

Role overload is defined as the degree to which a person perceives him/ herself to be under time pressure because of the number of commitments and responsibilities one has in life (Reilly, 1982). Role overload is conceptually distinct from two other role stressors; (1)

role conflict (i.e., having different incompatible demands); and, (2) *role ambiguity* (i.e., being uncertain about the task requirements of a particular job).

Role overload is also conceptually distinct from emotional exhaustion, an outcome associated with an individual's inability to cope with sustained work demands (Singh et al., 1994). Role overload is a precursor to depersonalization, contributing to diminished feelings of personal accomplishment (Babakus et al., 1999). This dissertation focuses on the cognitive demands placed on salespeople due to the nature of their job (Brown et al., 2005). Greater work demands can overload employees which led to them using their personal time to accommodate work demands (Duxbury and Higgins, 2001).

Studies of role overload have been conducted with a variety samples including working mothers (e.g., Joag and Gentry, 1991; Robinson and Milkie, 1998; Etaugh and Moss, 2001), who are more integrated into the workforce while keeping many traditional household responsibilities simultaneously. Other role overload studies have included health care professionals (Peiro et al., 2001), consumer brand managers (Veloutsou and Panigyrakis, 2004), frontline employees (Boles and Babin, 1996), and accountants (Bartuner and Reynolds, 1983; Fogarty et al., 2000). Consistently across these studies, role overload has been found to have a detrimental impact on employee well-being.

As employees become more stressed, physical and mental health declines. Other undesirable results of role overload include lower organizational commitment and higher absenteeism due to illness (Duxbury and Higgins, 2001; Mulki et al., 2006). Additionally, other factors contribute to more work requirements including: (a) the increasing prevalence of downsizing, brought about partly by the onset of a recession during the early nineties; and, (b) the pervasiveness of technological change (Jones et al., 2007) these factors heighten role overload.

Salespeople and their organizations experience many negative consequences of role overload. For example, poorer physical and mental health due to role overload leads to absenteeism and lower performance, which may be indicative of lower enthusiasm for the job at hand (Ivancevich et al., 1985). The negative impact of role stressors, such as role overload, on salesperson outcomes has been documented (Babakus et al., 1999; Gaines and Jermier, 1983; Lee and Ashforth, 1990; Singh et al., 1994; Lagace et al., 1993). In this study the focus is on examining the effect of role overload as a stressor-created by social media use-on the psychological outcomes in a sales context.

Research on technology has a long, storied history in the sales discipline, beginning with the role of computers and laptops, moving to the Internet, progressing to customer relationship management and sales force automation applications (Tarafdar et al., 2015), and now incorporating social media (Andzulis et al., 2012). *Social media* has been defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user generated content" (Kaplan and Haenlein, 2010, p. 61). Stress can arise from social media for many reasons. Salespeople may become overloaded by accessing and mentally processing information (Bucher et al., 2013). Also, the excessive number of requests that a salesperson receives through social media can create stress. Further, social media tools allow for new form of interaction with customers, which generates burden for salesperson. Finally, the use of social media may also result in salespeople feeling overly connected (Bucher et al., 2013; Fonner and Roloff, 2012).

In the context of technostress and social media, recent research suggests that social media can be associated with technostress and technostress creators (Brooks, 2015; Brooks and Califf, 2017). Social media is directly linked to several of technostress creators, which

can subsequently impact individuals negatively (Maier et al., 2012), and is a primary reason why individuals may discontinue using Facebook (Maier et al., 2015). Similarly, Bucher et al., (2013), found that social media in the workplace has the potential to be linked to technostress in its users.

Social media- induced technostress has been operationalized in terms of five technostress creators including: overload, invasion, complexity, uncertainty, and insecurity) (Tarafdar et al., 2007, 2015; Ragu-Nathan et al., 2008). This dissertation proposes that social media leads to technostress-namely, overload- and hypothesizes:

H2: The higher the social media induced-technostress, the greater the role overload.

Because of social media's availability and connectivity, this study also predicts that social media use can lead to role overload, which will exacerbate work exhaustion. For example, a salesperson might use technology, but perceptions of having to use technology may induce strain feelings in the user, which then leads to burnout (Ragu-Nathan et al., 2008). That is, social media use may include strain (work exhaustion). Therefore, the following hypothesis will be examined:

H3: The higher the social media induced-technostress, the greater the work exhaustion.

Role overload and work exhaustion (strain)

Scholars have addressed the phenomenon of work exhaustion in the literature through research in the areas of tedium and job burnout (Sondhi et al., 2008). Work exhaustion is related to the experience of frustration caused by excessive distress and exhaustion, which is the result of excessive pressures on individuals (Maslach, 1982; Pines et al., 1981).

Researchers suggest that tedium results from having too many negative features and too few positive features in one's environment–that is, too many pressures, conflicts, and demands, combined with too few rewards, acknowledgments, and successes (Kanner et al., 1978). Work exhaustion arises from a boring, stressful or frustrating work environment (Fujimoto et al., 2016), and is considered to be the most prevalent consequence of occupational stress that negatively impacts both organizations and individuals (Sondhi et al., 2008; Cooper et al., 2001). De Croon et al., (2004) consider strain (i.e., work exhaustion) to be a psychological reaction to stressful situations.

In the organizational behavior and psychology literatures, researchers consistently have identified the following antecedents to work exhaustion and tedium: role conflict and role ambiguity (e.g., Burke and Greenglass, 1995; Jackson et al .,1986; Lee and Ash- forth, 1993a; Pines et al., 1981); interpersonal conflict (e.g., Leiter and Maslach, 1988; Pines et al., 1981); lack of autonomy (e.g., Jackson et al., 1986; Pines et al., 1981); and, lack of rewards (e.g., Jackson et al., 1986; Pines et al., 1981).

Social media-induced technostress includes overload, invasion, complexity, uncertainty, and insecurity (Tarafdar et al., 2007). Users respond to stressful situations in terms of psychological reactions, which are commonly referred to as "strain" (Ragu-Nathan et al., 2008). In this research, strain is used interchangeably with work exhaustion. For example, a salesperson could find technology incredibly complex and, then experience feelings of overload. Such technology may induce stressful feelings in the user, who might become associated with lower job satisfaction (Ragu-Nathan et al., 2008).

Given that social media-induced technostress involves overload and based on the above argument, it is suggested that the stressor role overload individuals experience through

use of social media leads to strain (i.e., work exhaustion). Therefore, the following hypothesis will be examined:

H4: The more salespeople perceive role overload, the higher the salespeople work exhaustion.

Role overload and job Satisfaction

Job satisfaction reflects the degree to which a person's wants, needs, or expectations are met at work (Cranny et al., 1992). Job satisfaction may capture an overall assessment of job and job characteristics, or assess employee satisfaction across multiple facets of job, (e.g., coworkers, pay, supervisors or customers) (Boles et al., 2003). Both satisfaction and dissatisfaction are seen as a function of the relationship between what one wants from a job and what one perceives to be getting from the job.

Salesperson job satisfaction plays a central role in ensuring sales force productivity, improving salesperson performance (e.g., Babakus et al., 1996; Iaffaldano and Muchinsky, 1985) and enhancing customer satisfaction (Homburg and Stock, 2004, 2005). Considerable work in management, applied psychology, and organizational science has focused on identifying the antecedents of job satisfaction or dissatisfaction (Brown and Peterson, 1993; Dirks and Ferrin, 2002; Judge et al., 2002; Rhoades and Eisenberger, 2002). In line with this dissertation, research has identified several potential antecedents to job satisfaction such as stress and burnout (e.g., Burke and Greenglass, 1995; Wolpin et al., 1991; Maslach and Jackson, 1984a). Based on the above literature dealing with these constructs, this dissertation hypothesizes that:

H5: Role overload will have a negative effect on job satisfaction

Work exhaustion and turnover intention

Turnover has been defined as the termination of membership in an organization by an employee who received monetary compensation from the organization (Mobley, 1982). Salesperson turnover has received substantial attention from researchers, demostrating its significance in the sales field (Boles et al., 2012). According to Price (2001), turnover intention is the individual's willingness of voluntary permanent withdrawal from an organization. It has been found that turnover intention is positively linked with actual turnover (Bluedorn, 1982); consequently, turnover intention is viewed as a prominent predictor of actual salespersons' turnover (Bigliardi et al., 2005).

To understand and ultimately seek ways to reduce the costs of turnover, we need to uncover factors related to increased turnover. Prior research has identified several variables associated with sales force turnover including organizational commitment (Park et al., 2015), ethical climate (Fournier et al., 2010; Jaramillo et al., 2006), stress (Podsakoff et al., 2007), and emotional exhaustion (Shin et al., 2013). However, no study examines the relationship between social media-induced technostress and turnover intention.

Therefore, this research investigates the indirect effect of social media-induced technostress through role overload and work exhaustion effects on turnover intention. Based on the above literature dealing with theses constructs, this research hypothesizes that:

H6: Work exhaustion will lead to turnover intention.

Job satisfaction and Turnover intention

A low turnover rate among salespeople is desirable as it reduces replacement costs and helps retain knowledgeable and experienced salespeople (Good et al., 1996). Understanding the causes of salespersons' turnover can provide insights into how to deal

with, and control, the phenomena (Good et a., 1996). As a result, intention to quit is a key construct examined in different models of salesperson performance including: role perceptions, job attitudes, and behavior (Netemeyer et al., 2004). According to these findings, job satisfaction may be determinate of turnover intentions. Thus, this dissertation hypothesize that a satisfied salesperson is less likely to leave his/her company and the following hypothesis will be examined:

H7: Job satisfaction will have a negative relationship with turnover intention.

The effect of gender

The rapid growth in the number of women employed as salespeople over the past 25 years has had a significant impact on the sales profession (Moncrief et al., 2000; Inks et al., 2019). In fact, in the 1990s academics began to considering gender differences in studies and to investigate various gender-related (e.g., information processing) (Darley and Smith, 1995). Gender differences have been also expanded in relation to technology acceptance (Davis, 1989), e-learning (Okazaki and Santos, 2012), and use of social media (Nara- simhamurthy, 2014). In information processing, females are more subjective and comprehensive in processing information, whereas males engage in more selective and analytic information processing (Darley and Smith 1995).

Further, technostress research indicates that an individual's perception of technostress might depend on that person's personality traits such as extraversion, introversion, and neuroticism. (Maier, 2014). However, individuals also differ in terms age, gender, or experience (e.g., Ragu-Nathan et al., 2008). Prior technology research reveals that these characteristics influence user perceptions and behaviors (McElroy et al., 2007; Devaraj et al., 2008); however, the influence of these characteristics on perception of, and reactions to, social media-induced technostress has not yet been studied.

This dissertation investigates whether females and males vary in their perception of social media induced-technostress, given that gender-related differences are then considered when making managerial decisions (Fugate et al.,1988; Gable and Reed, 1987; Busch and Bush, 1978). This dissertation hypothesizes that:

H8 a: There is a difference among males and females in perceiving role overload due to social media- incused technostress.

H8b: There is a difference among males and females in perceiving work exhaustion due to social media-incused technostress.

The moderating role of technology self-efficacy

In the sales literature, some research examines the mitigating effect of training on negative attitudes or perceptions of technology use on performance (Geiger and Turley, 2006; Speier and Venkatesh, 2002). However, the negative impact of social media has not been studied yet, nor has the role of individual-differences variables in reducing the negative impact of social media.

There is a significant body of literature suggesting that various self-efficacies, such as sales task confidence, or new product selling ability, enhance the performance of the salesperson (Brown et al., 2007). For example, Fu et al., (2010) demonstrates a link between sales self-efficacy and new product launch performance by the salesperson. In the current context, a salesperson's technology self-efficacy has been shown to moderate the relationship between technology usage in general and the extent of relationship building (Mathieu et al., 2007). Technology self-efficacy could also play an important part in dampening the negative impact of social media-induced technostress.

It has been found that technology self-efficacy is associated with increased computer performance (Compeau and Higgins, 1995b) and decreased anxiety in the context of computer use (Compeau and Higgins, 1995a). Where self-efficacy influences emotional response towards a behavior, individuals having high technology self-efficacy feel positive about their ability to use technology to accomplish a task (e.g., Compeau and Higgins, 1995a). Higher self-efficacy is also associated with higher comfort in using computers. Salespeople who have high technology self-efficacy are thus expected to be more enthusiastic about using social media. They are also more likely to do so in a relaxed and enquiring frame of mind and to identify ways of using social media enable them to perform their tasks more effectively.

Studies on individual adjustments to technological changes (Nelson and Kletke, 1990) have theorized an individual's computer experience moderates the relationship between stress-creating conditions and their outcomes. These results provide support for self-efficacy, a related individual characteristic, as a moderator of similar relationships. The development of technology self-efficacy, then, may represent one possible avenue for mitigating the negative impact of conditions creating social media-related technostress on the role overload when using social media for sales tasks. In fact, it is reasonable to expect that technology self-efficacy would moderate the negative impact of social media-induced technostress on role overload. The following hypothesis is examined:

H9: The negative impact of social media-induced technostress will be greater for salespeople with lower levels of technology self-efficacy than those with higher levels of technology self-efficacy.

CHAPTER 4
RESEARCH METHODOLOGY

Overview

This chapter outlines the methodology used in this dissertation. The first four sections of this chapter discuss the research methodology employed, the research processes designed to achieve the main objective, and the method used to collect the data. Then, the next two sections discuss the data analysis approach (i.e. SEM, partial least squares), and the statistical analyses utilized to assess the reliability and validity of the research model. This chapter also discusses the steps taken to develop the research instrument, along with statistical analyses conducted on the demographic data.

Research methodology

In this dissertation, attention is devoted to data collection, data analysis, and testing key relationships between constructs of interest. Within quantitative research, there are two common research methodologies being adopted by researchers—survey research and experimental research (Creswell, 2009). A survey research methodology is adopted in this dissertation, as this approach helps provide standardized information to describe variables and to examine relationships between variables (Malhotra & Grover, 1998).

Research Processes

The problem statement for this dissertation was developed after reviewing literature related to technostress and social media. Based on this review, this dissertation concludes that a more in depth understanding of the determinants of social media-induced technostress among salespeople is needed.

In this dissertation, the research instrument is developed using measurement scales identified from previous studies. Necessary adaptions are made to make sure items fit into the context of the current research. The research instrument's validity and reliability are accessed using data from online surveys, pre-testing, and a pilot study.

Data for this dissertation is collected using Amazon Mechanical Turk (Mturk). The sample for this dissertation is selected using well-established sampling techniques. In addition, the data is analyzed using partial least square (PLS)—a structural equation modelling (SEM) technique. Finally, the results are interpreted and documented.

Data Collection Technique

The following subsections discuss sampling and data collection on Amazon Mechanical Turk. To test the hypothesized relationships, single-MTurk data were collected from salespeople in multiple surveys.

Sampling

For this dissertation, only salespeople who regularly use social media for work were selected as participants. This is because the main objective of this research is to understand the determinants of salespeoples' social media-induced technostress and job-related outcomes.

Amazon's Mechanical Turk

Amason's Mechanical Turk was utilized to administrate the survey. Researchers in the social sciences are increasingly turning to online data collection panels for research purposes (Lovett et al., 2018). In addition, there is evidence that technology has changed data collection methods. In particular, crowdsourcing (i.e., is the act of attaining information, ideas, and/or services from a group of individuals, usually online, Howe, 2006). has risen in

popularity as a means to obtain data in a variety of fields of study (Paolacci & Chandler, 2014).

Specifically, crowdsourcing is the practice of engaging a crowd or group of individuals for a common objective, including paid recruitment of an online and independent global workforce for the aim of working on a specific task or set of tasks (Behrend et al., 2011, p. 801).

One popular crowdsourcing platform for social science survey completion is Amazon's Mechanical Turk (MTurk), an online labor market that brings together Requesters (i.e., those who need work performed) and Workers (i.e., those who perform the task, such as completing surveys) via short-term contracts (Brawley & Pury, 2016). In this process, workers can search for and access work for pay, which is regularly conducted from a distance at their convenience (Barnes et al., 2015). Workers can access a variety of Human Intelligence Tasks (HITs), many of which are social science surveys posted by academicians. It is estimated that there are more than 7,500 full-time (Guarino, 2015) and more than 500,000 part-time MTurkers worldwide (Harris, 2014), many of whom are using survey respondents like those compromising the sample in this dissertation.

As with any empirical study, the main objectives when crafting a survey is to collect the appropriate data, minimize measurement error in the data (Fowler, 2013), and to enhance data quality. A specific data quality concern is insufficient effort responding (IER), also known as careless responding, which presents error variance into observed scores (Huang et al., 2015). Participants who engage in IER during survey completion may not read survey directions carefully, may respond randomly, or may respond without proper attention to survey item content (Huang et al., 2015). Additionally, while there have been investigations into the data quality provided by crowdsourcing workers, many researchers have turned to

MTurk's most experienced workers, those qualified by Amazon as Mechanical Turk Masters (MTMs), who are supposed to provide the highest quality data.

MTurkers tend to provide more diverse samples than traditional undergraduate students, allowing researchers to achieve more generalizable results (Buhrmester et al., 2011). Many researchers view crowdsourcing as more vailed sampling and data collection methods than relying on student respondents to of limited participant pools that researchers (Gosling et al., 2010). In fact, recent researchers conducting research with an MTurk sample ($0.75 per survey) found that the sample performed better on manipulation checks and attention checks and are more reliable than a QUALTRICS sample ($3.75 per survey) (Kees et al., 2017). Other studies suggest that MTurk participants are just as attentive to instructions as traditional subject pools. For instance, MTurk participants' performance on instructs of manipulation checks did not differ from that of a well-paid supervised community sample in another experiment (Goodman et al., 2013). Additionally, MTurk participants pass attention check questions at rates similar to those of college samples and Internet forum samples (Paolacci et al., 2010), and pass factual manipulation check questions at higher rates than do other Internet samples (Berinsky et al., 2012).

MTurkers are inexpensive, demanding as little as $0.10–$0.50 per short survey they complet (Kees et al., 2017; Goodman et al., 2013). According to Buhrmester et al., (2011), the data quality of MTurkers seemed to be independent from compensation, though Bartneck et al., (2015) found that MTurkers tend to complete more tasks when they are paid more money. As a result, for this dissertation participants were paid $3.00 per participant.

Data collection through MTurk is also fast, requires fewer physical resources, and enables researchers to eliminate data entry errors (Behrend et al., 2011). Moreover, MTurk samples from US populations are comparable to other subject pools (i.e. Internet samples)

(Berinsky et al., 2012), except that MTurk samples tended to be more diverse (Buhrmester et al., 2011). Rand (2012) verified the accuracy of MTurker demographics, and other scholars have agreed that these two data collection techniques are similar in terms of the psychometric properties (Buhrmester et al., 2011; Behrend et al., 2011; De Beuckalaer and Lievens, 2009). Although the average MTurker tends to be a bit older than a student respondent, more educated, and more likely to be male, MTurk samples still fare well in demographic representativeness when compared to both non-student adult samples and Internet-based survey samples (Berinsky et al., 2012).

However, some researchers are critical of MTurk. Paolacci and Chandler (2014) point out that MTurk participants are unsupervised and anonymous, they complete surveys in unknown location, and they are motivated by financial incentives. Researchers believe those features of MTurk make participants inattentive to instructions and results in poor-quality data (Paolacci and Chandler, 2014). Others criticize the lower pass rates of MTurk participants on instructional manipulation checks (i.e., trick questions designed to assess participants' attention to instructions (Oppenheimer et al., 2009). Other criticism of MTurk participants are that they do not fully reading instructions (Crump et al., 2013; Kapelner & Chandler, 2010), engage in distractions such as cell phones (Clifford and Jerit, 2014), and multitask while completing surveys (Paolacci and Chandler, 2014).

Measures

In this dissertation, the measurement items are adapted from previously validated constructs. As suggested by Straub (1989), it is advisable to reuse previous validated instruments when employing survey methods. An advantage of using existing measures is that the reliability and validity testing of the measures have already taken place, giving the researcher confidence the measurement qualities of the existing measures without having to

evaluate the measures (Bryman and Bell, 2007). Further, the homological validity of the construct can be established when it is tested and validated with a variety of samples, in different settings, across time (Straub et al., 2004).

Data Analysis

Structural Equation Modelling (SEM)

Structural Equation Modeling is a part of multivariate statistical techniques employed to examine both direct and indirect relationships between one or more independent latent variables and one or more dependent latent variables (Gefen et al., 2000). With SEM several multivariate statistical analyses maybe conducted, including regression analysis, path analysis, factor analysis, canonical correlation analysis, and growth curve modeling (Gefen et al., 2000; Urbach and Ahlemann, 2010). Structural Equation Modeling allows researchers to assess the overall fit of a model and to test the structural model all together (Chin, 1998b; Gefen et al., 2000). SEM not only evaluates the hypothesized structural linkages among constructs, but also the linkages that exist between a construct and its respective measures.

When applying SEM correctly, it provides advantages over the first generation of analysis techniques (e.g., principal component analysis, factor analysis, or multiple regression). SEM allows flexibility for researchers to assess interplay between theory and data (Chin, 1998a). In fact, it has been found that SEM enables researchers to: (1) model relationships among multiple predictors and criterion variables; (2) construct unobservable latent variables; (3) model errors in measurement for observed variables; and, (4) statistically test *a priori* theoretical and measurement assumptions against empirical data (Chin, 1998a).

The PLS approach avoids many of the restrictive assumptions underlying ML techniques and ensures against improper solution and factor indeterminacy (Fornell and Bookstein, 1982).

Rules of Thumb for Selecting CB-SEM or PLS-SEM

In order a researcher to determine which statistical methods to employ, understanding the assumptions underlying both statistical methods are required. The selection between CB-SEM and PLS-SEM can be made based on several factors such as research objective, types of measurement model specification, the modelling of structural model, data characteristics and model evaluation (Hair et al., 2011). According to Hair et al., (2011), there are several rules of thumb that can be used as guidance when selecting between PLS-SEM and CB-SEM.

First, when selecting between these two methods, the researcher has to identify the objective of conducting the research. CB-SEM is an appropriate method to utilize if the research objective is to test or confirm a theory. This is because when testing a theory, it requires the ability to demonstrate how well a theoretical model fits the observed data (Barclay et al., 1995). According Barclay et al., (1995), CB-SEM is more appropriate for modelling where the objective is to minimize the covariance matrix. This has been the strength of CB-SEM.

Meanwhile, PLS-SEM is suitable when the research objective is for prediction and theory development. In this type of modelling the focus is on identifying the best prediction of relationships between variables and the focus is on maximizing the amount of covariance between latent variables in order to increase the model interpretation (Sosik et al., 2009).

Second, CB-SEM is limited only to research models that utilize reflective constructs. Although previous studies have employed formative measures within the structural model,

they usually lead to identification problems (Henseler et al., 2009). For instance, using formative constructs within CB-SEM would create a situation where the explanation of the covariance of all indicators is not possible (Chin, 1998b). Further, when using CB-SEM to handle both reflective and formative constructs it is relatively vary (Urbach and Ahlemann, 2010). On the other hand, PLS-SEM can be employed to analyze a research model that consists of both reflective and formative constructs (Chin, 1998b). Thus, PLS enables researchers to use either reflective, formative or the combination of both reflective and formative constructs at the same time.

Third, CB-SEM has a set of assumptions that needed to be met before any further analysis. These assumptions include the assessment of: 1) data multivariate normality, 2) observation independence, and 3) variable metric uniformity (Sosik et al., 2009). Using CB-SEM requires the data to have a normal distribution and a large sample size. If any of the assumptions is violated, CB- SEM results will be inaccurate (Hair et al., 2011). Whereas, PLS-SEM is a more robust approach and able to analyze data with non-normality distribution. Further, data normality is not a required aspect because PLS utilizes standardization mechanisms, which transform any non-normal data into data that adheres to the central limit theorem (Beebe et al., 1998).

Finally, the PLS-SEM's main objective is to test and/or predict the theoretical model that has been suggested based on the literature and not to test which alternate model fits the data better (Sosik et al., 2009). The residuals on manifest and latent variables are correlated in PLS; therefore, allowing PLS to "estimate" (Falk and Miller, 1992, p. 10). Table 7 summarizes the rules of thumb between selecting CB-SEM and PLS-SEM.

Partial Least Square (PLS)

Partial Least Square (PLS) was originated by an econometrician named Herman Wold in the 1970s (Chin, 1998b). PLS inclueds alternating least squares algorithms, which extend principal component and canonical correlation analysis (Henseler et al., 2009). The path of PLS models are usually applied to two sets of linear equations known as *the measurement model* and *structural model* (Henseler et al., 2009). The measurement model (i.e., the outer model) specifies the relationships between unobserved or latent variables, whereas the structural model (i.e., the inner model) specifies the relationships between a latent variable and its manifest variables (items).

According to Henseler et al., (2009), PLS algorithm is essentially a sequence of regressions in terms of weight vectors and its basic algorithm involves the following stages:

1. Stage one: Iterative estimation of latent variable scores consisting of a four-step iterative procedure that is repeated until convergence is obtained:

a) outer approximation of the latent variable scores;
b) estimation of inner weights;
c) inner approximation of the latent variable scores; and,
d) estimation of the outer weights.

2. Stage two: Estimation of outer weights/loading and path coefficients.

3. Stage three: Estimation of location parameters.

PLS-SEM has been applied increasingly in marketing and other business fields (Henseler et al., 2009). Scholars view the PLS-SEM approach as a more robust estimation of the structural model (Henseler et al., 2009). PLS-SEM is also viewed as an alternative method when CB-SEM distributional assumptions cannot be met (Hair et al., 2011). This dissertation employs established analytic criteria, adapting a partial east square (PLS-SEM)

approach as the statistical method to assess the research model. Specifically, following reasons guided this decision:

1) The focus of the analysis in this dissertation does not involve the measurement of model invariance. Rather the focus is on the prediction factors related to social media-induced technostress. Hence, the use of latent variable scores is important to examine the underlying relationship between the LVs (Sosik et al., 2009).
2) According to Henseler et al., (2009), PLS is appropriate for large complex models with many latent variables. This dissertation employs a quite large, more number of LVs, and has a relatively complex research model (Henseler et al., 2009).
3) The aim of this dissertation is to examine the relationships according to prior theoretical knowledge. PLS-SEM has the ability to estimate the correlations between residuals and assess their effects on the model.

Evaluating Measurement and Structural Models using Partial Least Square

In this dissertation, the research model is assessed using a two-step process: (1) the assessment of the measurement model; and, (2) the assessment of the structural model. Overall, the aim of model validation is to determine whether both the measurement and the structural model meet the quality criteria for empirical research (Urbach and Ahlemann, 2010). The following subsections discuss the guidelines used in this dissertation to assess both measurement and the structural model.

Measurement Model

Based upon prior studies, the validation of a reflective measurement model can be established by examining its internal consistency, indicator reliability, convergent validity and discriminant validity (Lewis et al., 2005; Straub et al., 2004).

Internal Consistency

Traditionally, internal consistency for a measurement model can be assessed using Cronbach's alpha (CA). Essentially, constructs with high Cronbach's alpha values meant that the items within the construct have the same range and meaning (Cronbach, 1971). Employing Cronbach's alpha offers an estimate for the reliability based on indicator inter-correlations.

Within PLS, internal consistency is also measured using composite reliability (Chin, 1998b). Both composite reliability and Cronbach's alpha measure internal consistency, but composite reliability takes into consideration that indicators have different loadings. Cronbach's alpha may underestimate the internal consistency reliability, where it does not assume the equivalent among the measures and assuming all indicators are equally weighted (Werts et al., 1974). Internal consistency reliability is considered satisfactory when the value is at least 0.7 in the early stage, and above 0.8 or 0.9 in more advanced stages of research. Value below 0.6 indicate a lack of reliability (Nunnally and Bernstein, 1994).

Indicator Reliability

The purpose of assessing indicators reliability is to evaluate the extent to which a variable or a set of variables is consistent with what it intends to measure (Urbach and Ahlemann, 2010). Moreover, the reliability of a construct is independent and has a distinct calculation from other constructs. The significance of indicator loadings is recommended to be at least at the 0.05 level, with loadings of 0.7 (Chin ,1998b). However, other studies suggest that factor loadings should be greater than 0.5 for better results (Truong and McColl, 2011; Hulland, 1999), while still other studies assert that a 0.5 cutoff in is acceptable (Chen and Tsai, 2007). According to Hair et al., (2010), factor loading estimates should be between 0.5 and 0.7.

The significance of the indicator loadings can be examined using a resampling method, such as bootstrapping or jackknifing. Taking into consideration PLS characteristics of consistency, one should be cautious when deciding to eliminate an indicator. In fact, an indicator should only be eliminated when its reliability is low, and its elimination goes along with a substantial increase of composite reliability (Hensler et al., 2009).

Convergent Validity

According to Urbach and Ahlemann (2010), convergent validity involves the degree to which individual items reflect a construct converging in comparison to items measuring different constructs. It can be assessed using the value of average variance extracted (AVE). Adequate convergent validity is achieved when the AVE value of a construct is at least 0.5 (Fornell and Larcker, 1981).

Discriminant Validity

According to Urbach and Ahlemann (2010), discriminant validity is used to differentiate a construct's measures from one another. It also measures the degree of difference between overlapping constructs (Hair et al., 2014). Unlike convergent validity, discriminant validity tests whether the items unintentionally measure something else besides the intended construct. In PLS, there are two measures of discriminant validity that are commonly used; (1) cross loading (Chin, 1998b); and, (2) Fornell-Larcker's criterion (Fornell and Larcker, 1981).

Cross-loading is obtained by correlating each latent variable's component scores with all other items. If each indicator's loading is higher for its designated construct compared to any other constructs, then it can be inferred that the different constructs' indicators are not interchangeable (Chin, 1998b).

Applying Fornell-Larcker's criterion requires a latent variable to share more variance with its assigned indicators than with any other latent variable. This method compares the square root of the average variance extracted (AVE) with the correlation of latent constructs. A latent construct should better explain the variance of its own indicator rather than the variance of other latent constructs. Therefore, the square root of each construct's AVE should exceed the correlations with other latent constructs (Hair et al., 2014). Table 8 provides summary of validity guidelines to assess a reflective measurement model.

In this dissertation, the measurement model's validity is deemed satisfactory if:

1) Composite reliability is greater than 0.8.
2) Each item's loading is greater than 0.5 and significant at least at the 0.05 level.
3) The AVE value for each construct is larger than 0.5.
4) Each item's loading on each indicator is highest for its designated construct.
5) The square root of the AVE of a construct exceeds the correlations between the construct and other constructs in the mode.

Structural Model

The structural model can only be analyzed after the measurement model has been validated successfully. Validating the structural model can aid in evaluating systematically whether the hypotheses expressed by the structural model are supported by the data (Urbach and Ahlemann, 2010). In PLS, a structural model can be evaluated using the coefficient of determination (R^2) and path coefficients.

The first important criterion for assessing the structural model is to evaluate each endogenous latent variable's coefficient of determination (R^2), which measures the relationship of a latent variable's explained variance to its total variance. According to Chin

(1998b), a value of R^2 around 0.67 is considered substantial, while values around 0.333 are average, and values of 0.19 and lower are weak.

The second criterion for assessing the structural model is to examine the path coefficient value, which predicts the strength of the relationship between two latent variables. To examine the relationship between two latent variables, the researcher should check the path coefficients, algebraic sign, magnitude, and significance. Path coefficients must exceed 0.100 to account for a certain impact within the model and to be significant at the 0.05 level of significance (Huber et al., 2007). Table 9 summarizes the guidelines to validate the structural model. In this dissertation the structural model is evaluated and deemed satisfactory if:

1) The coefficient of determination is larger than 0.19.
2) Path coefficients between LVs must are least 0.1, follow the correct algebraic sign (positive or negative), and are significant (at least 0.05).

Moderation Relationships

Moderation occurs when the relationship between two variables is moderated or affected by a third variable, referred as a moderator (Cohen et al., 2014). Statistically, the effect of a moderator variable is characterized as an interaction, and could be either a categorical variable (e.g., gender) or a quantitative variable (e.g., the level of one's self-efficacy) that influences the direction and/or strength of the relationship between dependent and independent variables (Cohen et al., 2014).

Figure 3. illustrate the moderation effect graphically. It is containing of a dependent variable (Y), an independent variable (X), and the moderator (M). Then the moderator

variable is connected to the dependent and independent variables by an arrow which points to the relationship between X and Y.

However, the statistical visualization differs from how it is illustated in the model graphically depicted in figure 4 as it includes interaction term showed by X*M (Z). Figure 4 illustrates the statistical model for moderation including an interaction terms (Z), pointing to the dependent variable.

Multi-group analysis

Hypothetically, the comparison of group-specific effects involves the consideration of a categorical moderator variable which, ‘‘affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable’’ (Baron and Kenny ,1986, p. 1174). Following this notion, group effects include a categorical moderator variable imposes a moderating effect on each observation’s group membership (Henseler et al., 2009). Consequently, multi-group analysis is viewed as a special case of modeling continuous moderating effects (Henseler and Chin, 2010; Henseler and Fassott, 2010).

In this dissertation, gender is used as categorical moderating variable. The rapid increase in the number of women employed as salespeople over the past 25 years has had notable impact on the sales profession (Moncrief et al., 2000). In fact, in the 1990s academicians began exploring gender differences in information processing (Darley and Smith, 1995), technology acceptance (Davis, 1989), e-learning (Okazaki and Santos, 2012), and use of social media (Nara- simhamurthy, 2014). To illustrate gender-based differences, females have been found to be more subjective and comprehensive in processing information, whereas males engage in more selective and analytic information processing (Darley and Smith 1995). This dissertation investigates gender differences in the perception of social

media-induced technostress, which should be considered when making managerial decisions (Fugate et al., 1988; Gable and Reed, 1987; Busch and Bush, 1978).

Figure 5 illustrates the categorical moderator variable concept graphically. Where, x_1 to x_4 represent (reflective) indicator variables of an exogenous latent variable ξ, y_1 to y_3 represent (reflective) indicator variables of an endogenous latent variable $\eta_{1\&2}$, and $\theta_{1\&2}$ is the parameter of the relationship between ξ and η. Lastly, *m* represents a categorical moderating variable, which potentially exerts an influence on all model relations.

A primary concern when comparing model estimates across groups is ensuring that the construct measures are invariant across the groups (Steenkamp and Baumgartner,1998). With reference to Figure 5, this requirement implies that the moderator variable's effect is restricted to the parameter θ and does not entail group-related differences in the item loadings.

Three approaches to multi-group analysis have been proposed within a PLS path modeling framework. The first approach is known as the parametric approach (Henseler, 2007). This method is a parametric significance test for the difference of group-specific PLS-SEM results that assumes equal variances across groups. This method was introduced by Keil et al., (2000), and involves estimating model parameters for each group separately, and using the standard errors obtained from bootstrapping as the input for a parametric test.

The second approach proposed by Chin (2003b), is a distribution-free data permutation test (Chin and Dibbern, 2010; Dibbern and Chin, 2005), because the parametric approach's distributional assumptions do not fit PLS path modeling distribution-free character. This test seeks to scale the observed differences between groups by comparing these differences to those between groups randomly assembled from the data.

Finally, Henseler (2007) proposed and described a third nonparametric procedure, which directly compares group-specific bootstrap estimates from each bootstrap sample (Henseler et al., 2009). This method is a non-parametric significance test for the difference of group-specific results that builds on PLS-SEM bootstrapping results.

In general, the multi-group analysis allows the researcher to examine if predefined data groups have significant differences in their group-specific parameter estimates (e.g., outer weights, outer loadings and path coefficients). PLS provides outcomes of the three above approaches that are based on bootstrapping results from every group (Sarstedt et al., 2011; Hair et al., 2018).

Note that there is a difference between simple moderation and multi-group analysis (MGA). Multi-group analysis allows the researcher to assess whether two or more variables have the same or different impact across groups (MacKinnon, 2011). Particularly, when the moderator variable is categorical (e.g., gender), the preferred analysis technique is MGA, which tests and compares the effect of every structural path across various groups (Aguinis et al., 2017). MGA performed via univariate analysis and this procedure can be done by comparing between two or more groups. A simple moderation analysis by contrast, is appropriate when the moderator is expected to exert its effect on the specific structural path(s) with the support of relevant theory (Momon et al., 2019).

Mediation Relationship

In simple mediation, a mediating factor is a third variable that accounts for the relationship between the independent (predictor) and dependent (outcome) variable. A mediator is the mechanism through which a predictor influences an outcome variable (Baron and Kenny, 1986).

Soble test

After the relationship between a predictor and an outcome is established, then the significance of mediated effects needs to be assessed. The following formula is used to determine the statistical significance of the mediation reduction.

$$Z = \frac{ab}{\sqrt{(a^2\, s_b^2 \;+\; b^2\, s_a^2)}}$$

In this equation, *a* and *b* are the path coefficient values from the predictor variable to the mediating variable, and from the mediating variable to outcome variable, whereas s_a and s_b are the standard error values for the path coefficients. These values can be obtained from bootstrapping output. The significant indirect effects between two variables are decided based on the *Z* value. The null hypothesis –that there is no indirect effect between two variables– is rejected when the *Z* value is greater than 1.96.

Serial mediation

Serial mediation is considered to be a different version of multiple mediation. When there is a "causal chain linking the mediators, with a specified direction of causal flow" (Hayes, 2012 *p*. 14). For multiple mediation analysis, the SPSS macro PROCESS in figure 6 is applied with two significant mediators. For the serial analysis, a causal chain links the mediators with a specified direction of causal flow, leading to the creation of paths between mediators. As recommended by Hayes (2012), the regression/path coefficients are all in unstandardized form as standardized coefficients generally have no useful substantive interpretation.

Instrument Development

Items Selection

Table 11 illustrates the descriptive statistics of instruments. In this dissertation, the measurement items are adapted from previously validated constructs (Straub,1989). from pervious literature. An advantage of using existing measures is that the reliability and validity testing of the measures have already taken place, allowing the researcher to know about the measurement qualities of the existing measures (Bryman and Bell, 2007). Further, the homological validity of the construct can be established when it is tested and validated across individuals, settings, and time (Straub et al., 2004).

In this dissertation, six constructs are measured using multiple items. The wording of each item was modified to fit the context of social media-induced technostress within sales. Social media-induced technostress was measured using four dimensions with 18 items (e.g., *I am forced by social media technology to do more work than I can handle*) adapted from Tarafdar et al., (2014). Role overload was measured using a13-item scale (e.g., *I have to do things I don't have the time and energy for)* adapted from Reilly (1982). The 12-item scale of work exhaustion *(e.g., it is hard for me to relax after using social media)* was adapted from Mohr et al., (2005). Job satisfaction was measured using a modified seven-item scale *(e.g., Overall, I am satisfied with the promotional opportunity in this job)* was adapted from Curry et al., (1986). Turnover intention was measured using a modified three-item scale *(e.g., It is likely that I will actively look for a new job next year)* adapted from Mobley et al., (1978)**.** Finally, the social media technology use *(e.g., I use social media to communicate with current customer)* was measured using 7-items, adapted from Agnihotri et al., 2017. All items are measured using seven-point Likert scales ranging from "strongly disagree" (1) to "strongly agree" (7). Table 4 lists the measurement constructs used in this dissertation.

Pre-Test

To assess the appropriateness of the instrument, a pre-test was conducted, during which, participants were asked to complete the instrument and critique matters relevant for initial instrument design. Format, content, understandability, terminology, and the ease and speed of completion (Lewis et al., 2005), were assessed. A number of experts provided feedback on measuring social media usage and the questionnaire design. The pre-test survey was administrated with graduate and undergraduate students to evaluate its understandability and speed of completion.

Preliminary study

In order to further assess and purify the instrument, a preliminary study was conducted (Lewis et al., 2005), as a "dress-rehearsal" of the instrument with a comparable sample. The main objective of the preliminary study was to detect any issues associated with the measures and survey design from the perspective of a similar target sample.

The preliminary study followed the procedures employed in the actual study. It was conducted on November 2018 with MTurk respondents, who were involving salespeople with sales experience and who use social media for work. As reported in chapter 5, were no major problems in understanding the survey instructions and items.

A total of 165 U.S. salespeople participated in the pilot study, but ten were excluded because they do not use social media for work. Overall, the total sample size is 155, (61% were males). The majority of respondents (68.3%) have general sales experience. Respondents ranged in age from 18 – 65 years of age, with an average age of 36.21 years.

Hypothesized relationships were estimated using SmartPLS 3.0 (Ringle et al., 2015; Kalra et al., 2017), which is suitable for handling small sample sizes. The quality of the

measurement model was evaluated using the guidelines discussed in section 3 of this chapter. The measurement model was estimated using a bootstrapping technique that generates 500 samples of the 150 cases used.

The results reported in chapter 5 indicate satisfactory reliability and validity of the measures, and the assessment of the path coefficient. Altogether, results from the pre-test were good enough to move to the actual data collection phase.

Questionnaire format and administration

There are four main sections in the survey used in this study. The first section presents an introduction related to the purpose of the research and contains statement of assurance of confidentiality and anonymity. In the second section, there is a filtering question, which is used to screen for social media use for work. Since the focus of this study is to understand social media-induced technostress, only salespeople using social media for work were allowed to participate in the survey. The filtering question is "Do you use social media for work?" Respondents who answered "No", were directed to the end of survey (with a message explaining why the survey ended for them). Respondents who answered 'Yes' were directed to the third section of the survey.

In the third section, participants are asked to answer 33 questions about the use of social media for work and its impact. Using the control function in the survey, respondents were forced to answer all questions. Incomplete responses are permitted. In the last section, provided personal demographic information for statistical purposes. Finally, all respondents who completed the survey received a generated code which they submitted for payment.

Final survey

Data Preparation

Data preparation involves coding responses and entering data into a database, data filtering, and finding any missing responses. With online surveys, data is entered automatically into a database. After downloading survey responses, the data were reviewed to identify incomplete or invalid data. Out of 400 responses, 19 responses are found to be incomplete and invalid, for one of the following reasons:

a) The respondent entered the same responses for all asked questions (e.g., answered 7 for all questions;

b) to the respondent stopped answering the questionnaire before the end.

c) The respondent took less than five minutes to complete the survey indicating s/he not pay attention when answering the survey questions.

Following this evaluation, all 381 usable cases are loaded into SPSS version 19.0 software to generate descriptive statistical reports, to generate exploratory analyses on every variable to check for missing or invalid data, and to generate additional analyses to check for normality test, response bias and common method bias.

For PLS-SEM analysis purposes, Smart PLS 3.0 M3 was used to analyze the measurement and structural models. Using Smart PLS the data was transformed into an Excel CVS file to generate raw input for the application.

Descriptive Statistics of Respondents

Descriptive statistics give insight into the demographic profiles of respondents who participated in the survey. Based on descriptive analyses, the response rate was 89.6% (381 responses). Among these respondents, 62.1% were males (37.9% were females). Almost sixteen percent of respondents have at least five years of current sales experience, while 10.2

% of respondents have ten years general sales experience. These analyses also show that 45.5% of the respondents were below 35 years old (25 to 34), where 10.5% were between 18 to 24 years of age, 25.2% were 35 to 44 years of age, and 9.1% were above 45 years of age. Table 10 presents respondents' demographic characteristics, which are also provided in chapter 5.

Descriptive Statistics of Instrument

Using the statistical software SPSS version 19.0, the mean, standard deviation, variance, minimum value and maximum value of each indicator were examined. Table 5 outlines the descriptive statistics for all indicators. Descriptive statistics of the instrument for the final study are also provided in chapter 5.

Verifying Data Characteristics

This section discusses the analyses undertaken to verify the collected data. This step is important to ensure that the data used in the higher-level analyses is valid and complete. There are a few analyses conducted to verify data normality, to ensure the data does not have missing values, and to determine if there is any potential for common method bias.

Missing Data

In this dissertation, an analysis of missing values is not necessary because an online survey forces answers. Through the survey service, incomplete responses are automatically flagged, and the system only accepts complete responses. Hence, all of the downloaded responses were complete and did not have any missing data.

Data Normality

The data normality test was examined using two statistical analyses: (1) Shapiro-Wilk test; and, (2) an assessment of skewness and kurtosis. The results from the Shapiro-Wilk test show that all variables have significant values of 0.00, indicating the data are not normal (non-normal). Further tests were conducted by calculating the data skewness and kurtosis values. The result of this test confirmed that the data distribution was non-normal, where about 80% of the data presented skewness and kurtosis above the recommended threshold (-3 to +3). That is, the data normality distribution assumption was violated, which further supports the use of PLS-SEM.

Common Method Bias

The data was also assessed for its potential common method bias. This dissertation adopted Harman's one factor test used in previous studies (Koh and Kim, 2004; Leimeister et al., 2006), to examine the result of the un-rotated factor solutions and determine the number of factors accounting for the variance in the variables (Koh and Kim, 2004). Common method bias is identified based on two conditions: (1) when a single factor emerges from the factor analysis; and, (2) when one general factor accounts for a majority of the co-variance in the independent and criterion variables.

According to Podsakoff et al. (2003), the amount of variance accounted for common method biasness (CMB) varies by field of research (e.g., marketing, management, and psychology). For studies that investigate behavioral topics, common method biasness exists when the co-variance accounted for that single factor is greater than 40.7 %. Based on the Harman's one factor test, six factors in this research were presented and the most co-variance explained by one factor is 29.7 %. This indicates that common method biasn is not a likely contaminant of research results.

The data of this dissertation were provided by salespeople themselves, which opens the potential for bias associated with single resource data. The Harman's one-factor test (Podsakoff and Organ, 1986) was employed to check the data for this issue. Specifically, a factor analysis with the constructs was performed, where the number of factors were constrained to be one factor with no rotation method. If a factor emerges with more than 50% of the explained variance then the data is suffering from CMB. The analysis suggests that data did not pose a significant threat related to CMB. Common method variance was also checked using a solitary latent factor (Podsakoff and Organ, 1986). To determine if the data affected by CMV, a confirmatory factor analysis was conducted, and results show that all the manifest factors do not load on that latent factor. Instead, the loading on various manifest factors was obtained, suggesting that CMV is not a concern in this dissertation.

Control Variables

Assessing the impact of control variables on the dependent variable is important to rule out other possible effects that are unrelated to the hypothesized relationships. For this dissertation, mandatory use of social media, numbers of social sites, time spent on social media per day, and current experience were selected as control variables. In a post-hoc analysis, these control variables are treated as independent variables together with other latent variables using SmartPLS to examine path coefficients and significance of values. The relationships between the independent variable (i.e., social media induced-technostress) and dependent variable (i.e., job satisfaction) are found to be statistically significant, even with the inclusion of the above control variables.

CHAPTER 5
DATA ANALYSIS AND RESULTS

Overview

This chapter presents the results of analyses are conducted using the statistical technique discussed in Chapter 4. This chapter follows the widely accepted reporting style of PLS analysis as suggested by previous studies (Chin, 2010). First, the validity and reliability of the measurement model is assessed, the structural model is validated. Since this dissertation involves assessing the mediating role of role overload and work exhaustion on job satisfaction and turnover intention, a post-hoc analysis is conducted to examine this effect. This chapter also present results of the preliminary study, concluding with a summary.

Sample

The MTurk's sample was required to meet the following screening criteria: (1) be full time salesperson; (2) use social media for work; and, (3) be 18 years or older. An online survey was administrated to 400 participants. Responses from participants who did not complete survey or who failed an attention check items were eliminated from the sample, resulting in 381 cases for analysis (Table 10). Respondents ranged from 18 – 65 years of age M= 36.50 years old, and 38.32% were female.

Measurement Model Assessment

Smart PLS 3.0 M3 (Ringle et al., 2015) is used to assess the measurement and structural model. This statistical software assesses the psychometric properties of the measurement model and estimates the parameters of the structural model.

As discussed in Chapter 4, the validity and reliability of the measurement model is evaluated by assessing: (1) internal consistency reliability; (2) indicator reliability; (3) convergent validity; and, (4) discriminant validity. The following sections present the results for all analysis to evaluate the validity and reliability of the measurement model.

Internal Consistency Reliability

A measurement model said to have a satisfactory internal consistency reliability when the composite reliability (CR) of each construct exceeds the threshold value of 0.7. Table 12 shows the CR of each construct for this dissertation ranges from 0.885 to 0.964. These results indicate that the items used to represent the constructs poses satisfactory internal consistency reliability.

Indicator Reliability

The indicator reliability of the measurement model is measured by examining the items loadings. A measurement model is said to have a satisfactory indicator reliability when each item's loading estimates is higher Between .5 - .7 (Hair et al., 2010). Based on the analysis, all items in the measurement model exhibited loadings exceeding 0.5, ranging from a lower bound of 0.57 to an upper bound of 0.96. All items are significant at the level of 0.001. Table 12 shows the loading for each item. Thus, all items used for this research demonstrate satisfactory indicator reliability.

Convergent Validity

In this dissertation, the measurement model's convergent validity is assessed by examining its average variance extracted (AVE) value. Convergent validity is said to be adequate when constructs have an average variance extracted (AVE) value close to 0.5 or

higher. Table 12 shows that all constructs have an AVE ranging from 0.531 to 0.866. suggesting the measurement model exhibits an adequate convergent validity.

Discriminant Validity

In this dissertation, the measurement model's discriminant validity is assessed by using two measures: (1) Fornell and Larcker's (1981) criterion; and, (2) cross loadings. A measurement model has adequate discriminant validity when: (1) the square root of the AVE exceeds the correlations between the measure and all other measures; and, (2) an indicator's loading is higher for its respective construct than for any constructs.

The first criterion in assessed using the SmartPLS algorithm function, which generates the AVE value of each construct. This method compares the square root of the average variance extracted (AVE) with the correlation of latent constructs (Hair et al., 2014). A latent construct should better explain the variance of its own indicator than it does the variance of other latent constructs. Consequently, the square root of each construct's AVE should have a greater value than the correlations with other latent constructs (Hair et al., 2014).

In this dissertation, all square roots of AVE exceeded the off-diagonal elements in their corresponding row and column. The bolded elements in Table 13 represent the square roots of the AVE and non-bolded values represent the inter-correlation value between constructs. As showing in table 13, all off-diagonal elements are lower than square roots of AVE confirming that Fornell and Larker's criterion is met.

The second assessment for discriminant validity involves examining indicators and comparing them to all construct correlations. The factor loading indicators on the assigned construct should be higher than all loading on other constructs. The output of cross loadings,

produced by the SmartPLS algorithm function, are presented in Table 14. All measurement items used in this dissertation loaded higher against their respective intended latent variable compared to other variables. Further, the loading of each block is higher than any other block in the same rows and columns, clearly separating each latent variable as theorized in the conceptual model. Thus, the cross-loading output confirms that the measurement model's discriminant validity.

Overall, the reliability and validity tests conducted on the measurement model are satisfactory, suggesting that items used to measure constructs in this dissertation are valid and fit to be used to estimate parameters in the structural model.

Goodness of model fit

According to Hair et al., (2014)'s standards for acceptable fit, SRMR should be less than 0.08, while the ideal value for NFI must be above 0.9. These, fit statistics for the research model demonstrate acceptable fit appear in Table 15.

Structural Model

The following subsections discuss the tests used to assess the validity of the structural model for this dissertation, which requires an examination of the coefficient of determination (R^2) and path coefficients. This dissertation also assesses the mediation relationships proposed in the research model using Hayes (2012). The significance of mediators is tested using Sobel's test (Z).

Coefficient of Determination (R^2)

The coefficient of determination(R^2) value indicates the amount of variance in a dependent variable that is explained by the independent variables. In other words, it is the

proportion of variability in the data that the measurement model explains. This value should be high to explain the endogenous latent variable's variance well; therefore, a larger R^2 value increases the predictive ability of the structural model. In this dissertation, the SmartPLS algorithm function is used to obtain the R^2 values. While the SmartPLS bootstrapping function is generates 500 sample from 381 cases, used to generate the *t*-statistics values. Result of the structural model (presented in Figure 7) show the social media technology use explains 66.5 % of the variance in social media-induced technostress. Social media-induced technostress explains 23.1% of the variance in role overload, and 50.4% of the variance in work exhaustion. Further, work exhaustion explains 34.9% of the variance in turnover intention. Finally, role overload and work exhaustion together explain 61.1% of the variance in job satisfaction. The R^2 criterion is met and the structural model has adequate predictive ability (Chin, 1998).

Path Coefficients

Within the structural model, each path connects two latent variables representing a hypothesis. Path coefficients allow the researcher to confirm or disconfirm each hypothesis, and o better understands the strength of the relationship between dependent and independent variables.

Path coefficients can be interpreted as standardized beta coefficients that are calculated in ordinary least squares regression. Bootstrapping technique is used to determine whether the significant of path coefficients, along with *t*-statistics.

Table 16 presents the path coefficients, *t*-statistics, and significance level for all hypothesized relationships. Using the results from the path assessment, each proposed hypothesis either accept or reject. These results are discussed in the next section.

Hypotheses Testing

To test the proposed hypotheses and the structural model, path coefficients between latent variables are assessed. A path coefficient value should be at least 0.1 to account for a certain impact within the model (Hair et al., 2011; Wetzels et al., 2009). Of these path coefficients in this model (see Table 16), nine of proposed hypotheses are supported. Supported hypotheses are significant at the level of 0.05, have signs in the expected directions, and possess a path coefficient value (β) ranging from 0.17 to 0.50.

As shown in the table 16, social media technology use is positively relates to social media-induced technostress (β =0.17; p <.001), supporting H1. Further, social media-induced technostress is positively related to role overload (β =0.48; p <.001), supporting H2. In support of H3, social media-induced technostress is positively related to work exhaustion (β =0.36; p <.001). Role overload is positively related to work exhaustion (β =0.45; p <.001), supporting H4. Also, role overload is negatively related to job satisfaction (β = - 0.24; p <.001), supporting H5. In support of H6, work exhaustion is positively related to turnover intention (β =0.21; p <.001). Furthermore, job satisfaction is negatively related to turnover intention (β = - 0.50; p <.001), supporting H7. The difference among males and females in perceiving role overload due to social media incused-technostress (H8a) is supported (Figure 1) (β = 0.19; p 0. p <.00*1)*. However, H8b is not supported, because there is no significant difference between males and females in perceiving work exhaustion due to social media incused-technostress (β = 0.088; *n.s*). Lastly, as hypothesized in H9, salesperson technology self-efficacy negatively moderates the relationship between social media-induced technostress and work exhaustion (β = -0.15; p <.05). Table 17 summarizes results for all hypotheses tested.

Moderation Relationship

To further aid in the interpretation of moderator, the interaction is plotted in Figure 8. As Figure 8, which shows that the relationship between social media-induced technostress and work exhaustion is weaker at higher levels of technology self-efficacy and stronger at lower levels of technology self-efficacy.

Multi-group analysis

This dissertation employed multi-group causal analysis in SEM to examine the moderating effect of gender. Using SmartPLS, the data were divided based on gender, splitting the whole sample into two distinct groups (male = 241; female = 140), and performanig the multi-group analysis (MGA). Further, to detect if the difference between females and males is significant, parametric test was examined.

Based on the results, perceptions of social media-induced technostress among males and are significantly different, but only for work exhaustion. Therefore, this dissertation concludes that there is no difference between males and females with respect to the impact of social media-induced technostress on role overload. However, gender differences with respect to the impact of social media-induced technostress on work exhaustion are significant. Table 18 presents the path coefficients and standard deviations for both males and females while, Table 19 also shows the parameter test for the significance level of each hypothesized moderated relationship.

Mediation Analysis

Sobel's Test

According to Henseler et al. (2009) assessing the direct and indirect relationships between exogenous and endogenous latent variables is another important evaluation of a structural model. Both the level of significance of the direct and indirect relationships can be

examined by conducting Soble's test, which is employed here to test the significance of the mediating relationships hypothesized in this dissertation. Table 20 shows the summary of the direct and indirect relationships based on the structural model. The relationship between social media-induced technostress, Job satisfaction, and turnover intention is mediated significantly by role overload and work exhaustion. The *Z* value is greater than 1.96, and identifies both role overload (Z= -3.533, $p < 0.01$) and work exhaustion ($Z = 7.710$, $p < 0.01$) as significant mediators. The strength of the relationship between role overload (β= - 0.161) and work exhaustion (β=0.459) on job satisfaction and turnover intention shows that both factors have equal importance in affecting salespeople's job satisfaction and turnover intention.

Serial mediation analysis

Hayes (2012) defines serial mediation as "causal chain linking the mediators, with a specified direction of causal flow" (Hayes, 2012 *p*. 14). In this dissertation, serial mediation is utilized because while simple mediation provides evidence of the underling mechanism, serial mediation can help specify the causal chain by conducting a more detailed analysis.

To test serial mediation, the procedure specified by Hayes (2012, model 6) was used. In this procedure, two models were created; (1) one with social media-induced technostress entered as the independent variable, job satisfaction as the dependent variable, and role overload as the mediator (figure 9.1); and, (2) another with social media-induced technostress entered as the independent variable, turnover intention as the dependent variable, and work exhaustion as the mediator (Figure 9.2). Next, a 1000-sample bootstrap procedure was employed (Hayes, 2012). The model specifying social media-induced technostress → role overload → job satisfaction was significant = -.16 (95% BCI = -.26 2to -.087), as the bootstrap confidence interval did not contain zero. Following the same approach, the model

specifying social media-induced technostress → work exhaustion → turnover intention was also significant =.31 (95% BCI = .056 to .275). These results suggest that social media-induced technostress positively influences role overload, which affects work exhaustion, and then ultimately has a downstream positive impact on salesperson job satisfaction and turnover intention.

Post hoc analysis

To examine the moderating effect of social media type of use, multi-group causal analysis in SEM was employed. Using SmartPLS, the data were divided based on type of use (mandatory or voluntary). Specifically, the sample was divided into two distinct groups (mandatory = 219; voluntary = 162) and the multi-group analysis (MGA) was performed. A parametric test was examined to determine the significance of this potential moderator.

Results suggest the effect of social media-induced technostress on role overload varies significantly across respondents who engage mandatory use versus voluntary use. However, social media type of use does not significantly moderate social media-induced technostress on work exhaustion.

Interestingly, as illustrated in table 21, there are differences in the absolute level of social media-induced technostress for salespeople who are mandated to use social media (mean= 0.58 and =0.32), as compared to those who are using social media voluntarily (mean= 0.42 and 0.43). The differences in dispersion between these two groups can be analyzed by comparing the standard deviation of each group. There is more of a spread of social media-induced technostress for those who are using social media in mandatory way (SD= .082 - .067), (SD = .054 - .058). Table 22 shows the level of significance for the difference between the two groups.

Moreover, the comparison between means was performed using SPSS. Results reveal that there is a significant difference between mandatory use (mean=3.91) and voluntary use (mean=2.18) (see Table 23). Thus, this dissertation concludes that there is difference between mandatory use and voluntary use with regard to the impact of social media-induced technostress

Preliminary study

A total of 165 U.S. salespeople participated in the pilot study (Table 24), although ten respondents were excluded because either they were not complete, or respondents do not use social media for work. Overall, the total sample size was 155. (61% males). The majority (66%) of the respondents have general sales experience. Respondents ranged from 18 – 65 years of age (M= 34.21 years).

Hypothesized relationships were estimated using SmartPLS 3.0 (Ringle et al., 2015; Kalra et al., 2017). The quality of the measurement model was evaluated as discussed in chapter 4, using a bootstrapping technique that generates 500 samples of the 150 cases used. Table 25 provides the assessments conducted on the research model, while Table 26 displays correlations and discriminant validity for measures used. Table 27 provides descriptive statistics for preliminary study, and Table 28 displays final results of the preliminary study, indicating estimates for path coefficients.

Measures were satisfactory in terms of reliability and validity. (except for social media-induced technostress AVE). Further, results were deemed adequate to justify good enough to moving to the actual data collection phase.

Summary of Chapter 5

SmartPLS is employed to examine the determinant leading to social-media induced technostress and influencing salespeople job-related outcomes. A number of observations can be made from the analysis conducted on both the measurement and structural models.

First, the structural model demonstrated satisfactory reliability and validity. In terms of internal consistency, all constructs had composite reliability values exceeding 0.7. All item loadings were within the range of recommended cutoffs and significant at the level of 0.001– demonstrating indicator reliability. The measurement model also demonstrated satisfactory convergent and discriminant validity, with AVE values within the recommended range. Further, all manifest variables loaded on their respective latent variable and the square roots of AVE for each construct were greater than the its inter-correlation.

Second, the validation of the structural model demonstrated satisfactory results. The R^2 were substantial, with moderate to satisfactory values. Moreover, nine of ten the proposed paths within the structural model were supported. Specifically, these proposed relationships had β values greater than 0.1 and were significant at the 0.05 level.

Third, the structural model exhibited two significant mediating relationships. One construct (i.e., role overload) had a full mediation effect on the relationship between social media-induced technostress and job satisfaction, while the second construct (i.e., work exhaustion) had a partial mediation effect on the relationship between social media-induced technostress and turnover intention.

Fourth, this dissertation examined the moderating effect of salesperson technology self-efficacy, demonstrating that the relationship between social media- induced technostress and work exhaustion is weaker at the higher levels of technology self-efficacy and stronger at the lower levels of technology self-efficacy.

Fifth, this dissertation examined if pre-defined data groups (i.e., gender) display significant differences in their perceptions of social media-induced technostress. There was a significant difference between males and females when it comes to perceptions of work exhaustion due to social media-incused technostress, but not in their perception of role overload.

Finally, this dissertation performed multi-group analysis as a post hoc test of differences across salespeople social media use. There was a significant difference in mandatory use versus voluntary use with respect to the impact of social media-induced technostress on role overload; however, social media use did not moderate the impact of social media-induced technostress on work exhaustion. Further, findings of a means comparison of absolute level of social media-induced technostress for both groups indicated that the technostress level for the mandated group was higher than the voluntary group. Meaning there is a difference between the two groups.

CHAPTER 6
CONCLUSION

Overview

This chapter discusses results presented in chapter 5, as well as theoretical and managerial implications emanating from the findings of this dissertation. This chapter also considers the limitations of the research and offers suggestions for future research.

Overall research findings

The main objective of this dissertation was to investigate stress experienced by salespeople while using social media for work. This research tested a model of the technostress associated with using of social media for work affects salespeople.

Based on the transactional-based model of stress (Lazarus, 1983), as hypnotized, social media technology use acted as an antecedent to social media-induced technostress (stressor-primary appraisal) and resulted in role overload (stressor-secondary appraisal) and work exhaustion (strain). Further, this dissertation found that the combination of stressors (social media-induced technostress and role overload) and strain (work exhaustion) acted as mediators between social media induced-technostress, job satisfaction, and turnover intention.

This research sought to learn more about this negative impact. For instance, in the sales literature, there is a considerable body of research that connects self-efficacy to psychological variables such as role stress (Lent and Brown, 2006). Thus, technology-self efficacy was studied as one of the potential factors to reduce the effect of technostress

imposed by social media. Salespeople with lower technology self-efficacy in this study perceived greater work exhaustion due to social media-induced technostress.

This dissertation also performed multi-group analysis to test whether pre-defined data groups (i.e., gender) yield significant differences in their perception of stress and /or strain. This research detected significant difference between males and females in their perceptions of work exhaustion due to social media-induced technostress, but no gender differences perceptions of role overload due to social media-induced technostress.

Also, a post hoc analysis was performed to test for differences between the type of use of social media. Results revealed significant differences between mandatory users and users with respect to the impact of social media-induced technostress on role overload, but not for work exhaustion. Further, the means comparison of absolute levels of social media-induced technostress between the two groups indicated that significantly higher technostress levels for the mandatory use group than for voluntary use group.

Theoretical Implications

Several theoretical implications can be drawn from this dissertation. First, this research further develops our understanding of the phenomenon of social media-induced technostress in the context of sales. More specifically, this dissertation enhances the current technostress literature (e.g. Ragu-Nathan et al., 2008; Ayyagari et al., 2011; Maier et al., 2012 Tarafdar et al., 2014, Brooks and Cliff, 2017) that psychology and physical outcomes of technostress such as job commitment, job satisfaction, and exhaustion.

Second, this dissertation integrates ideas from social cognitive theory, technostress research, and the sales literatures to theoretically lay out and empirically examine the role of technology self-efficacy as a factor that decreases work exhaustion. Examining technology-self efficacy furthers our understanding of social media-induced technostress by highlighting

that an individual's beliefs about his ability to use social media will influence responses to stressful situations that he encounters due to social media use–a perspective missing in literature. The study thus broadens the theoretical domain of technology self-efficacy as it relates to the technostress phenomenon.

Third, this dissertation explores social media-induced technostress in the context of the sales professional's ongoing use of social media, identifying it as a potential reason for higher role overload and lower job satisfaction as (unintended) effects of social media usage. From a theoretical perspective, the current research extends the sales- technology literature that focuses on the sales professionals' job stress and turnover during initial technology implementation/adoption (Speier and Venkatesh, 2002).

Moreover, while the professional sales literature has discussed variables like perceived usefulness as antecedents of social media use, the role of negative cognitions such as technostress in effecting social media use related outcomes had not yet been examined. Given existing mixed findings regarding the impact of sales technologies use on job-related outcomes such as performance of the sales professional (Ahearne and Rapp, 2010), social media induced- technostress represents a promising domain for further exploration.

Managerial Implications

Given challenges associated with appropriating benefits from the use of sales force technology applications (i.e. SFA and CRM) (Ahearne et al., 2004**)** and strategically important expectations from their use (Sarin et al., 2010), insights into how technology-related stress relates to sales technology-related outcomes are critical to improving the practical application of the social media. This dissertation suggests that adding technology responsibilities could be associated with increased role overload and work exhaustion, and decreased satisfaction, and increased turnover intention. While increasing an individual's

competence in using social media can partially counter these effects, increasing technology self-efficacy, social media related understanding, and training could also be crucial. It appears necessary to go beyond standard training mechanisms and ensure through continuing education, involvement, confidence/belief building, and technical assistance– that sales professionals understand why specific technologies are implemented, how they can be used, what functionalities they beget, and how overall performance will be enhanced. Moreover, given that sales professionals are not typically located internally physically in the organization, it is important to make them aware of support mechanisms that exist for their benefit.

This dissertation also provides an instrument for assessing levels of social media-induced technostress among sales professionals through the "social media-induced technostress creators" construct. This instrument provides a mechanism to assess psychological well-being of salespeople, as well as to management tool for remedying issues related to perceive stress and role overload. Since social media technology is likely to become more pervasive in sales force, management must become fully aware of issues related to how the infusion of social media can lead to technostress and how to address them.

Limitations and Future Research

The present research should be couched within the context of its limitations, some of which provide directions for future research. First, even though every effort was made to ensure the validity of this research, survey respondents were MTurks participants. The online survey could possibly have a bearing on the findings, in that the participants might have experienced greater technostress due to the use of technology to complete the survey. Therefore, future studies can adopt traditional sampling to enhance generalizability.

Second, this research did not specify any particular industry, so no conclusion can be drawn about any specific company or sales job type. Third, this dissertation did not study role overload in conjunction with other stressors. Thus, further research might address how role overload acts as a stressor, and how social media-induced technostress compare to other job s stressors. From a research perceptive, it is also worth studying the relationship that might exist between formal technology training and reduced technostress. Such research could reveal insights into what training might be necessary and appropriate.

Further, according to Ivancevich, and Matteson (1980), there are two different dimensions of role overload; (1) qualitative role overload (i.e., having too much to do given the time available); and, 2) quantitative role overload (i.e., skills, abilities, and/ or knowledge beyond that which the one in the position possesses). Does social media-induced technostress similarly affect both qualitative and quantitative role overload in varying degrees? Future research should study the relationship between social media-induced technostress and role overload in greater detail by distinguishing between these two role overload dimensions.

Finally, social media-induced technostress is a form of stress. Thus, future studies could investigate whether stress is more prevalent in salespeople who stressed anyway or not. That is, if an individual considered to be a stressful person and technology is added to that person's basic tasks, is s/he more likely to exhibit greater technostress than someone who is stressful person in nature?

Other research questions might include: (1) Are all salespeople equally viewed as evident of role overload? (2) Are all salespeople equally prone to those feelings or are there differential effects based on factors such personality traits, education, and perceived autonomy? (3) Are there other factors (besides role overload & social media-induced technostress) that create and differentially affect work exhaustion?

Additionally, it would be interesting to study the occurrence of other role stressors with respect to role overload. Is the occurrence of role overload followed by conflict and ambiguity? Prior research subordinates the impact of role overload to the impact of role conflict and ambiguity. However, longitudinal research might reveal that role overload leads to role conflict and role ambiguity, and perhaps higher levels of perceived role overload elevates the levels of role conflict and role ambiguity.

List of tables

Table 1

Sales technology research-technostress (Salesforce automation and customer relationship management)

Paper	Research type	Dependent variables	Context
Tarafdar et al., (2011)	Quantitative (survey- based)	Role stress and technology-enabled performance	B2B
Tarafdar et al., (2014)	Quantitative (survey- based)	Role stress and technology-enabled innovation	B2B
Tarafdar et al., (2015)	Quantitative (survey- based)	Sales performance and technology-enabled innovation	B2B

Table 2

Summary of key constructs

	Constructs	Definitions	References
1	Social media technology	The technological component of the communication, transaction and relationship building functions of a business which leverages the network of customers and prospects to promote value co-creation.	Andzulis et al., (2012, p. 308)
2	Social media induced-technostress	Stress brought by the use of social media technology.	Maier et al., 2012
3	Role overload	The number of different roles an employee has to fulfill. And it occurs when the salesperson perceives that the cumulative role demands exceed his or her abilities and motivation to perform a task.	Singh, 1998

4	Work exhaustion	A state arising from too many pressure, stressful and frustrating work environment	Fujimoto et al., 2016
5	Job satisfaction	How a salesperson feels about the job, its role requirements, outcomes, promotion opportunities, and organizational feedback	e.g., Singh, 1996
6	Turnover intention	The immediate precursor to actual quitting.	Tatt and Meyer, 1993
7	Technology self-efficacy	An individual ‘s beliefs in his/her capabilities to organize and execute the courses of action required to produce a given outcome.	Bandura, 2001

Table 3

Some theories studying social media usage

Theory	Description
Social Cognitive Theory Bandura (1989)	Individual's behavior is partially shaped and controlled by the influences of social network (i.e., social systems) and the person's cognition (e.g., expectations, beliefs).
Task-technology Fit Model (Goodhue & Thompson, 1995)	Indicates that performance will be increased when a technology provides features and support that fit the requirements of the task.
Technology Acceptance Model (TAM) extended by TTF (Davis, 1989)	It explains why individuals adopt technology by introducing two technological characteristic based attitudinal beliefs; a) individual’s perceived usefulness, and b) perceived ease of use.
Theory of Planned Behavior (TPB) (Ajzen, 1991)	Posits that a positive attitude, a highly subjective norm, and great perceived behavioral control cause high behavioral intentions and consequently a high probability to perform a certain behavior.
Theory of Reasoned Action (TRA) (Ajzen and Fishbein1980)	Considers behavioral intentions as a function of attitude towards the behavior and subjective norms surrounding the behavior.

Social Capital Theory **Nahapiet and Ghoshal (1998)**	Posits that the network of relationships possessed by an individual or a social network and the set of resources embedded within it, strongly influence the extent to which Interpersonal knowledge sharing occurs.
Social Exchange Theory **(Emerson, 1984)**	Implies that all human relationships are formed by the use of a subject cost-benefit analysis and the comparison pf alternative

Table 4

Some theories studying technostress

Theory	Description
Technology Acceptance Model **(Davis, 1989)**	See table 1
Person-Environment Fit Model **(Cooper et al., 2001)**	Posits that, specifically, the lack of fit or the gap between the characteristics of the person and the environment could lead to unmet individual needs or unmet job demands that result in strain. This view emphasizes the subjective evaluation of the P-E fit (i.e., how the individual perceives the situation) or misfit.
Theory of Reasoned Action (TRA) **(Ajzen and Fishbein , 1980)**	See table 1
Theory of Planned Behavior (TPB) **(Ajzen, 1991)**	See table 1
Transactional-Based Model of Stress (Lazarus, 1984).	It posits that stress being created by the interplay between an individual and the environment, this model posits that stress emerges when environmental demands tax an individual's resources. Thus, this theory focuses on the transaction be-tween an individual and the environment. Through primary appraisal, an individual assesses possible detrimental effects, and through secondary appraisal the individual selects coping behaviors.

Table 5

Some theories studying social media-induced technostress

Theory	Description
Person-Environment Fit (Cooper et al., 2001)	The person-environment fit approach to stress theorizes stress to be the result of a misfit between characteristics of the individual (abilities or needs) and the environment (demands or supplies). Misperception of the individual and/or the environmental side of this relationship is the major cause of stress. (see table 2)
Distraction-Conflict Theory (Baron,1986)	Suggests that, in the workplace, individuals are subject to distractions caused by secondary tasks that disrupt their ability to cognitively process the information required to complete a primary task. In turn, the distraction leads to "attentional conflict" during which the individual decides how to respond to it.
Model of Technologies in Household (Venkatesh and Brown 2001)	It discusses perceptual beliefs that are of importance for the decision regarding whether technologies, such as social media, are used in voluntary settings. This model explains individuals' behavior with the help of attitudinal beliefs, normative beliefs, and control beliefs.

Table 6

Lists of the measurement construct

Construct	Items	Coding	Reference
Social media induced-technostress-Overload	I am forced by social media technology to work much faster	STO1	
	I am forced by social media technology to do more work than I can handle.	STO2	
	I am forced to change my work habits to adapt to new social media technology.	STO3	
	I am forced by social media technology to work with very tight time schedules	STO4	
Social media induced-technostress-Invasion	I spend less time with my family due to social media technology.	STI1	**Tarafdar et al., (2014)**
	I have to be in touch with my work even during my vacation due to social media technology.	STI2	
	I have to sacrifice my vacation and weekend time to keep current on social media technology.	STI3	

	I feel my personal life is being invaded due to social media technology.	STI4	
Social media induced-technostress-Complexity	I do not know enough about social media technology to handle my job satisfactorily.	STC1	**Tarafdar et al., (2014)**
	I need a long time to understand and use new technologies (i.e. social media).	STC2	
	I do not find enough time to study and upgrade my technology skills.	STC3	
	I find new recruits to this organization know more about social media technology than I do.	STC4	
	I often find it more complex for me to understand and use social media technology.	STC5	

Social media induced-technostress-Insecurity	I feel a constant threat to my job security due to new technologies.	STC1	
	I have to constantly upgrade my skills to avoid being replaced.	STC2	
	I am threatened by co-workers with newer social media technology skills.	STC3	
	I do not share my knowledge with co-workers for fear of being replaced.	STC4	
	I feel there is less sharing of knowledge among co-workers for fear of being replaced.	STC5	
Role overload (Stressor)	I think about my own beliefs and assumptions whenever I encounter a difficult situation.	RO 1	**Reilly, 1982**
	There are too many demands on my time.	RO 2	
	I need more hours in the day to do the things expected of me.	RO 3	
	I cannot ever seem to get caught up.	RO 4	
	I do not ever seem to have time for myself.	RO 5	
	There are times when I cannot meet everyone's expectations.	RO 6	
	Many times I have to cancel commitments.	RO 7	
	I seem to have to overextend myself in order to be able to finish everything I have to do.	RO 8	
		RO 9	

	I seem to have more commitments to overcome than some of the other salespeople I know. I feel I have to do things hastily and maybe less carefully in order to get everything done. I just cannot find the energy to do all the things expected of me. I find myself having to prepare priority lists to get done all the things I have to.	RO 10 RO 11 RO 12 RO 13	
Work exhaustion (Strain)	It is hard for me to relax after using social media. If others speak to me while using social media, I will sometimes give a testy reply. I am easily annoyed while using social media. I sometimes act aggressively in social media, although I do not want to do so. I feel irritable after using social media. I feel emotionally drained from using social media. I feel used up after using social media for several hours.	WE 1 WE 2 WE 3 WE 4 WE 5 WE 6 WE 7	**Mohr et al., 2005; Maier et al., 2012**

	I feel fatigue when I get up in the morning after being confronted with news in social media. I feel burned out from using social media. I feel frustrated by using social media. I feel I am using social media too much. Using social media puts too much stress on me.	WE 8 WE 9 WE 10 WE 11 WE 12	
Job satisfaction	Overall, I am satisfied with my work. Overall, I am satisfied with the promotional opportunity in this job. I feel promotion opportunities are wider in jobs other mine. I would advise a friend looking for a new job to take one similar to my job. I feel my pay is as high in comparison with what others get for similar work in other companies. I am satisfied with my general work situation.	JS 1 JS 2 JS 3 JS 4 JS 5 JS 6	**Wright & Cropanzano, 1998; Spector, 1985**
	It is likely that I will actively look for a new job next year.	TI 1	

Turnover intention	I often think about quitting. I will probably look for a new job in the next year.	TI 2 TI 3	**Mohr et al., 2005; Maier et al., 2012**
Social media technology use	I use social media to monitor event performance and visibility in the industry. I use social media to maintain regular contact and constantly communicate with current customers. I use social media to monitor competitors. I use all capabilities of social media in the best fashion to help me to target new customers (prospecting). I use social media as a cold online messaging. I use social media to its fullest for supporting my own work such as obtaining referrals to other potential prospects. My use of social media is pretty much integrated as part of my normal work routine	TOU1 TOU2 STU3 STU4 STU5 STU6 STU7	**Agnihotri et al., 2017; Tranor et al, 2013. (modified)**

Technology self-efficacy	**I could complete my job using Social Media tools easily:** If I had seen someone else using it before trying it myself. If I could call someone for help if I got stuck. If someone else had helped me get started. If I had a lot of time to complete the job for which the social media tools was provided. If someone showed me how to do it first. If I had used similar social media tools before this one to the same job.	TSE1 TSE2 TSE3 TSE4 TSE5 TSE6	**Tarafdar et al., 2014) (modified)**

Table 7

Summary of the Rules of Thumb in Selecting between CB-SEM and PLS-SEM.

Criteria to evaluate	CB-SEM	PLS-SEM
1. Research objective		
1.1 Predicting key target constructs		√
1.2 Theory testing, theory confirmation or comparison of alternative theories	√	
1.3 Exploratory of an extension of an existing structural theory		√
2. Measurement model specification		√
2.1 If formative constructs are part of the structural model		
2.2 If error terms require additional specification such as co-variation	√	
3. Structural model		√
3.1 If a structural model is complex		
3.2 If a structural model is non-recursive	√	
4. Data characteristics and algorithm		√
4.1 Data meet distributional assumptions		
4.2 Data did not meet distributional assumptions	√	√
4.3 Small sample size consideration		√
4.4 Large sample size consideration[1]	√	√
4.5 Non-normal distribution		
4.6 Normal distribution[2]	√	√
5. Model evaluation		
5.1 Use latent variable scores in subsequent analyses		
5.2 Requires global goodness of fit criterion	√	
5.3 Need to test for measurement model invariance	√	√

Adapted from Henseler et al. (2009) and Hair et al. (2011)

[1] With large data sets, CB-SEM and PLS-SEM results are similar provided that a large number of indicator variables are used to measure the latent construct (consistency at large) (Hair et al., 2011)

[2] Under normal data conditions, CB-SEM and PLS-SEM results are highly similar, with CB-SEM providing slightly more precise model estimates (Hair et al., 2011).

Table 8

Summaries of validity guidelines for assessing reflective measurement model

	Validity Type	Guidelines
1	Internal consistency	CR > 0.7 (for exploratory study) CR > 0.8 (advance research) CR < 0.6—lack of reliability
2	Indicator reliability	Item's loading > 0.7 and significant at least at the 0.05 level
3	Convergent validity	AVE > 0.50
4	Discriminant validity	Cross loading: Item's loading of each indicator is highest for its designated construct. The square root of the AVE of a construct should be greater than the correlations between the construct and other constructs in the mode (Fornell & Larcker).

Table 9

Structural model validity guidelines for assessing reflective structural model

	Criterion	Guideline
1	Coefficient of determination (R^2)	0.67—substantial 0.333—moderate 0.190—weak
2	Path coefficients	Path coefficient must be at least 0.100 and at significance (at least 0.05)

Table 10

Respondents' demographic information for final sSurvey

Demographics	Frequency (n=381)	Percentage (%)
Gender		
Female	146	38.32%
Male	253	61.67%
Age		
18-24	42	11%
25-34	182	47.8%
35-44	101	26.5%
45-54	38	10 %
55-64	15	3.9%
65 and older	3	0. 8%
Sales Experience in the current company		
1-3 years	138	36.22%
4-6 years	135	35.43%
7 years or more	108	28.34%
General Sales Experience		
1-3 years	30	7.87%
4- 6 years	105	27.55%

7 years or more	246	64.56%
Different accounts on social media (Having personal account(s) and professional account(s))		
Yes	204	53.54%
No	177	46.46%
Number of social media platforms (networking sites)		
1 social media platform	19	4.98%
2 social media platforms	208	54.59%
3 or more social media platforms	154	40.41%
Time spent on social media		
15 – 30 minutes	93	24.4%
1 hour	102	26.8%
2 hours	83	21.8%
3 hours or more	103	27%
Social media use mandatory vs. voluntary		
Mandatory	219	57.48%
Voluntary	162	42.51%

Table 11

Descriptive statistics of instruments for the final study

Construct	Items	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Social media induced-technostress-Overload	TECHNO_O1	381	1	7	3.73	1.957	3.831
	TECHNO_O2	381	1	7	3.06	1.773	3.143
	TECHNO_O3	381	1	7	3.90	1.901	3.615
	TECHNO_O4	381	1	7	3.49	1.883	3.545
	TECHNO_I1	381	1	7	3.27	1.959	3.837
	TECHNO_I2	381	1	7	3.95	2.076	4.311
Social media induced-technostress-Invasion	TECHNO_I3	381	1	7	3.17	1.980	3.921
	TECHNO_I4	381	1	7	3.67	2.089	4.362
Social media induced-technostress-Complexity	TECHNO_C1	381	1	7	2.18	1.584	2.510
	TECHNO_C2	381	1	7	2.14	1.566	2.452
	TECHNO_C3	381	1	7	2.59	1.744	3.043
	TECHNO_C4	381	1	7	2.97	1.894	3.586
	TECHNO_C5	381	1	7	2.37	1.623	2.634

Social media induced-technostress-Insecurity	TECHNO_IS1	381	1	7	2.39	1.763	3.107
	TECHNO_IS2	381	1	7	3.51	1.984	3.935
	TECHNO_IS3	381	1	7	2.48	1.644	2.703
	TECHNO_IS4	381	1	7	2.30	1.737	3.018
	TECHNO_IS5	381	1	7	2.84	1.882	3.542
Role Overload	RO1	381	1	7	3.97	1.980	3.920
	RO2	381	1	7	4.11	1.936	3.749
	RO3	381	1	7	4.41	1.914	3.664
	RO4	381	1	7	3.97	1.969	3.878
	RO5	381	1	7	3.98	1.996	3.984
	RO6	381	1	7	4.52	1.790	3.203
	RO7	381	1	7	4.73	1.905	3.628
	RO8	381	1	7	3.14	1.715	2.941
	RO9	381	1	7	3.90	1.948	3.795
	RO10	381	1	7	3.68	1.975	3.902
	RO11	381	1	7	3.57	1.912	3.656
	RO12	381	1	7	3.77	1.918	3.678
	RO13	381	1	7	4.66	1.862	3.467
	WE1	381	1	7	2.87	1.853	3.435
	WE2	381	1	7	2.73	1.877	3.522

Work Exhaustion	WE3	381	1	7	2.93	1.932	3.732
	WE4	381	1	7	2.25	1.641	2.693
	WE5	381	1	7	2.65	1.770	3.133
	WE6	381	1	7	3.01	1.973	3.895
	WE7	381	1	7	3.21	2.045	4.184
	WE8	381	1	7	3.06	1.977	3.907
	WE9	381	1	7	3.14	1.995	3.980
	WE10	381	1	7	2.98	1.894	3.586
	WE11	381	1	7	3.63	2.065	4.265
	WE12	381	1	7	2.87	1.911	3.653
Job Satisfaction	JS11	381	1	7	5.50	1.406	1.977
	JS12	381	1	7	5.27	1.606	2.578
	JS13	381	1	7	4.84	1.862	3.466
	JS21	381	1	7	4.77	1.777	3.157
	JS22	381	1	7	4.49	1.713	2.935
	JS23	381	1	7	4.18	1.838	3.377
	JS24	381	1	7	4.89	1.594	2.540
Turnover Intention	TI1	381	1	7	3.64	2.250	5.062
	TI2	381	1	7	3.40	2.114	4.468
	TI3	381	1	7	3.65	2.311	5.339
	STU1	381	1	7	4.98	1.755	3.081

Social media technology use	STU2	381	1	7	5.44	1.737	3.016
	STU3	381	1	7	5.30	1.756	3.084
	STU4	381	1	7	5.76	1.520	2.311
	STU5	381	1	7	5.63	1.501	2.254
	STU6	381	1	7	5.16	1.681	2.826
	STU7	381	1	7	5.91	1.350	1.823
Technology self-efficacy	TSE1	381	1	7	4.90	1.736	3.014
	TSE2	381	1	7	5.09	1.663	2.765
	TSE3	381	1	7	4.86	1.746	3.050
	TSE4	381	1	7	5.07	1.599	2.558
	TSE5	381	1	7	5.09	1.693	2.866
	TSE6	381	1	7	5.29	1.592	2.534

Table 12

Measurement model assessment

Constructs	Item	Std. Dev.	*T*- Statistics	Loadings
Social media induced-technostress **Mean** = 3.38	Overload	0.021	36.62	0.763
	Invasion	0.020	38.15	0.78

AVE= 0.531	Insecurity	0.017	51.53	0.865
	Complexity	0.024	32.04	0.823
Social media induced-technostress- Overload **CR** = 0.939 **Mean =** 4.76 **AVE**= 0.794 **CA**= 0.913	Techno-overload1	0.035	17.98	0.63
	Techno-overload2	0.033	20.859	0.68
	Techno-overload3	0.03	22.549	0.67
	Techno-overload4	0.027	26.985	0.72
Social media induced-technostress-Invasion **CR** = 0.892 **Mean =** 4.06 **AVE**= 0.625 **CA**= 0.901	Techno-Invasion 1	0.027	25.255	0.68
	Techno-Invasion 2	0.037	15.631	0.57
	Techno-Invasion 3	0.034	19.144	0.64
	Techno-Invasion 4	0.024	28.858	0.70
Social media induced-technostress- Insecurity **CR** = 0.886 **Mean =** 3.91 **AVE**= 0.719 **CA**= 0.894	Techno-Insecurity 1	0.026	28.298	0.74
	Techno-Insecurity 2	0.032	19.928	0.64
	Techno-Insecurity 3	0.026	28.898	0.74
	Techno-Insecurity 4	0.035	18.955	0.66
	Techno-Insecurity 5	0.03	23.254	0.69

Social media induced-technostress- Complexity **CR** = 0.915 **Mean =** 3.34 **AVE**= 0.695 **CA**= 0.942	Techno-Complexity 1	0.033	20.948	0.69
	Techno-Complexity 2	0.041	16.905	0.68
	Techno-Complexity 3	0.037	17.46	0.65
	Techno-Complexity 4	0.035	18.954	0.65
	Techno-Complexity 5	0.026	29.202	0.76
Role overload **CR** =0.952 **Mean =** 3.94 **AVE=** 0.660 **CA**= 0.94	RO1	0.021	40.405	0.82
	RO2	0.018	48.897	0.86
	RO3	0.014	64.45	0.87
	RO4	0.017	49.928	0.85
	RO5	0.018	45.952	0.83
	RO6	0.034	20.896	0.71
	RO7	0.021	39.059	0.81
	RO8	0.024	30.761	0.75
	RO9	0.013	67.101	0.88
	RO 10	0.019	42.882	0.81
	RO 11	0.022	36.847	0.80
	RO 12	0.014	59.294	0.85
	RO 13	0.039	16.251	0.63

Work Exhaustion **CR** = 0.963 **Mean** = 2.78 **AVE**= 0.683 **CA** = 0.96	WE 1	0.02	41.168	0.83
	WE 2	0.027	27.404	0.74
	WE 3	0.023	34.212	0.80
	WE 4	0.03	23.428	0.69
	WE 5	0.016	54.418	0.86
	WE 6	0.016	53.946	0.86
	WE 7	0.018	48.363	0.86
	WE 8	0.017	51.486	0.86
	WE 9	0.014	61.922	0.87
	WE 10	0.014	59.876	0.86
	WE 11	0.025	29.631	0.74
	WE 12	0.014	60.716	0.87
Job Satisfaction **CR** = 0.90 **Mean** = 4.12 **AVE** = 0.664 **CA**= 0.88	JS 1-1	0.028	28.16	0.78
	JS 1-2	0.021	40.013	0.81
	JS 1- 3	0.016	53.888	0.85
	JS 2-1	0.022	37.932	0.82
	JS 2-2	0.034	21.061	0.70
	JS 2-3	0.012	75.059	0.89
Turn over intention **CR**= 0.93 **Mean**= 4.38 **AVE**= 0.866 **CA**= 0.90	TI 1	0.006	157.158	0.95
	TI 2	0.01	91.372	0.92
	TI 3	0.005	205.348	0.96

Social media technology use **CR** = 0.885 **Mean** = 3.05 **AVE**= 0.526 **CA**= 0.85	STU 1	0.064	10.777	0.69
	STU 2	0.062	12.622	0.77
	STU 3	0.07	10.158	0.71
	STU 4	0.078	9.251	0.72
	STU 5	0.065	12.419	0.81
	STU 6	0.066	10.976	0.72
	STU 7	0.106	5.812	0.61
Technology self-efficacy **CR** = 0.953 **Mean**= 4.54 **AVE** = 0.712 **CA**= 0.93	TSE 1	0.032	13.213	0.81
	TSE 2	0.009	8.981	0.76
	TSE 3	0.07	15.178	0.87
	TSE 4	0.087	20.761	0.90
	TSE 5	0.068	18.846	0.91
	TSE 6	0.069	10.970	0.81

Table 13

Inter-correlation Matrix

	JS	RO	STU	TI	SMTS	WE	TSE
Job satisfaction (JS)	**0.815**						
Role overload (RO)	-0.243**	**0.813**					
Social media types of use (STU)	0.39*	-0.013	**0.725**				
Turnover intention (TI)	-0.555**	0.291**	-0.083	**0.948**			
Social media induced-technostress(SMTS)	-0.085	0.48*	0.077	0.238**	**0.683**		
Work exhaustion (WE)	-0.255**	0.633**	-0.07	0.339**	0.586**	**0.802**	
Technology self-efficacy (TSE)	0.216**	0.312**	0.002	0.286**	0.071	0.003	**0.712**

* Square root of the AVE on the diagonal (bold).

Table 14

The Cross -Loading Output Using Smart PLS

	JS	RO	TI	STU	SMTS	WE	TSE
JS11	**0.794**						
JS22	**0.834**		-0.435				
JS23	**0.694**		-0.417				
JS24	**0.885**		-0.512				
RO1		**0.82**			0.418	0.592	
RO10		**0.816**			0.497	0.531	
RO11		**0.801**			0.435	0.523	
RO12		**0.852**			0.414	0.581	
RO13		**0.636**					
RO2		**0.865**			0.421	0.551	
RO3		**0.878**				0.503	
RO4		**0.859**				0.564	
RO5		**0.832**				0.515	
RO6		**0.713**					
RO7		**0.817**					
RO8		**0.75**			0.436	0.526	
RO9		**0.888**				0.549	
S_WE1		0.512			0.566	**0.837**	
S_WE10		0.568			0.462	**0.862**	
S_WE11		0.535			0.421	**0.741**	
S_WE12		0.549			0.498	**0.873**	
S_WE2		0.466			0.524	**0.744**	
S_WE3		0.527				**0.803**	
S_WE4		0.407			0.509	**0.7**	
S_WE5		0.526			0.479	**0.867**	
S_WE6		0.516			0.465	**0.868**	
S_WE7		0.541			0.483	**0.859**	
S_WE8		0.559			0.462	**0.862**	
S_WE9		0.553				**0.874**	
TECHNO_Com					**0.793**		
TECHNO_Inv		0.423			**0.782**	0.557	
TECHNO_Insec					**0.847**		
TECHNO_Over					**0.736**	0.311	
TI1			**0.952**				
TI2			**0.929**				
TI3			**0.961**				
STU1				**0.667**			
STU2				**0.738**			
STU3				**0.736**			
STU4				**0.648**			
STU5				**0.759**			
STU6				**0.777**			

STU7				**0.623**			
TSE1				**0.667**			**0.811**
TSE 2							**0.763**
TSE 3							**0.871**
TSE 4							**0.90**
TSE 5							**0.91**
TSE 6							**0.81**

Table 15

Model fit indexes

Measure	Saturated model	Estimated model
SRMR	0.053	**0.079**
NFI	0.90	**0.91**
Chi-Square	1,333.659	1,331.551

Table 16

Path Coefficients, Observed T- Statistics, Significant Level for all hypothesized Paths

Hypothesis	Std. coefficients	*t*- value	*p*-value
H1: Social media types of use → Social media-induced technostress	0.17	5.44 **	0.000 **
H2: Social media-induced technostress → Role overload	0.48	10.57**	0.000**
H3: Social media-induced technostress → Work exhaustion	0.36	7.77**	0.000**
H4: Role overload → Work exhaustion	0.45	9.36**	0.000**
H5: Role overload → Job satisfaction	-0.24	4.13**	0.000**
H6: Work exhaustion → Turnover intention	0. 21	4.31**	0.000**
H7: Job satisfaction → Turnover intention	-0.50	11.37**	0.000**
H8a: Social media-induced technostress X Gender → Role overload	0.19	2.283*	0.02*
H8b: Social media-induced technostress X Gender → Work exhaustion	0.08	1.367	0.47 (*n.s*)

H9: Social media-induced technostress X Technology self-efficacy → Work exhaustion	-0.15	3.11**	0.002**
Not hypothesized (1): Work exhaustion → Job satisfaction	-0. 17	2.13*	0.033*
Not hypothesized (2): Social media-induced technostress → Job satisfaction	0.12	1.85	0.063 (*n.s*)
Not hypothesized (3): Social media-induced technostress → Turnover intention	0.10	1.70	0.088 (*n.s*)
Not hypothesized (4): Role overload → Turnover intention	0.04	0.75	0.44 (*n.s*)

Note: ** $p < 0.001$; * $p < 0.05$; *n.s* = Not significant.

Table 17

Summary of Hypothesis Testing

Hypothesis statement		Result
H1	The higher the use of social media for each sales activity, the higher the social media-induced technostress.	Supported
H2	The higher the social-media induced technostress, the greater the role overload.	Supported
H3	The higher the social media-induced technostress, the greater the work exhaustion.	Supported
H4	The more salespeople perceive role overload, the higher the salespeople work exhaustion.	Supported
H5	Role overload will have a negative relationship with job satisfaction.	Supported
H6	Work exhaustion will have a positive relationship with turnover intention.	Supported
H7	Job satisfaction will have a negative relationship with turnover intention.	Supported

H8a	There is a difference among males and females in perceiving role overload due to social media-incused technostress.	Supported
H8b	There is a difference among males and females in perceiving work exhaustion due to social-media incused technostress.	Not Supported
H9	The negative impact (strain) of social media-induced technostress (stressor) will be greater for salespeople with lower levels of technology self-efficacy than those with higher levels of technology self-efficacy.	Supported

Table 18

Path coefficients between gender

Proposed hypotheses	Male β value (*t* value)	Female β value (*t* value)	St. Dev. male	St. Dev. female
SMtechnostrss → RO	0.556 (8.09)	0.484 (9.996)	0.068	0.048
SMtechnostrss → WE	0.683 (14.831)	0.488 (7.095)	0.046	0.069

Table 19

Parametric test for significance level of each gender

	Path coefficients-diff (Female – Male)	*p*-value (Female vs male)	*t*-value (Female vs male)
SMtechnostrss → WE	0.067	$0.414^{n.s}$	0.817
SMtechnostrss → RO	0.19	0.02*	2.283

Table 20

Sobel's Test Results (Z value)

	Path	Path Coefficient	Standard Error	Type of mediation	*Z*	Result
Path a	SMTechno → RO	0.598	0.0272			The relationship between social media-induced technostress and job satisfaction is significantly mediated by role overload ($p < 0.01$).
Path b	RO → JS	-0.161	0.043			
Path c	SMTechno → JS	0.042				
Path c'	SMTechno → RO → JS	**-0.13**		**Full**	**-3.533**	
Path a	SMTechno→ WE	0.745	0.1114			The relationship between social media-induced technostress and turnover intention is partially mediated by work exhaustion ($p < 0.01$).
Path b	WE→TI	0.459	0.0871			
Patch c	SMTechno→ TI	0.34	0.047			
Path c'	SMTechno →WE → TI	**0.201**		**Partial** **(Because the direct relationship between SMTechno and TI)**	**7.710**	

Table 21

Path coefficients

Proposed hypotheses	Mandatory β value (t value)	Voluntary β value (t value)	St. Dev. Mandatory	St. Dev. Voluntary
SMtechnostrss → RO	0.589 (7.432)	0.426 (8.932)	0.082	0.054
SMtechnostrss → WE	0.325 (10.625)	0.437 (9.271)	0.067	0.085

Table 22

Parametric test for significance level

	Path coefficients-diff (Mandatory– Voluntary)	p-value (Mandatory vs Voluntary)	t-value (Mandatory vs Voluntary)
SMtechnostrss → RO	0.014	0.03^{*}	3.127
SMtechnostrss → WE	0.19	$0.532^{n.s}$	0.987

Table 23

SPSS report of means differences

Techno

SMuse	Mean	N	Std. Deviation
V	2.1857	162	1.38321
M	3.9177	219	1.17594
Total	3.0000	381	1.24757

Table 24

Respondents' demographic information for preliminary survey

Demographics	Frequency (n=155)	Percentage (%)
Gender		
Female	61	39%
Male	94	61%
Age		
18-24	46	29.67%
25-34	56	36.12%
35-44	44	28.38%
45-54	5	3.22%
55-64	3	1.93%
65 and older	1	0.68%
Sales Experience in the current company		
1-3 years	81	52.25%
4-6 years	51	32.90%
7 years or more	23	14.83%
General Sales Experience		
1-3 years	14	9.03%
4- 6 years	38	24.51%

7 years or more	103	66.45%
Different accounts on social media (Having personal account(s) and professional account(s))		
Yes	125	80.6%
No	30	19.4%
Number of social media platforms (networking sites)		
1 social media platform	28	18.1%
2 social media platforms	56	36.1%
3 or more social media platforms	71	45.8%
Time spent on social media		
15 – 30 minutes	31	20%
1 hour	42	27.1%
2 hours	36	23.2%
3 hours or more	46	29.7%
Social media use mandatory vs. voluntarily		
Mandatory	116	74.8%

Voluntary	39	25.2%

Table 25

Summaries of the Assessment Conducted on the Research Measurement Model

Assessment	Criterion	Result	Comment
Internal consistency	CR	CR value for all constructs range from 0.78 0.90	Exceeded 0.7, thus demonstrating internal consistency.
Indicator reliability	Indicator loadings	All items loading exceed 0.5, ranging from 0.654 to 0.82. All items are significant at the 0.001 level	All items loaded more than 0.5, hence, demonstrating indicator reliability.
Convergent validity	AVE	AVE value for all constructs range from 0.41 to 0.65	Each construct has an AVE value more than 0.4, thus demonstrating convergent validity
Discriminant validity	Cross loading (Fornell & Larcker criterion)	AVE value for all constructs range from 0.41 to 0.75	No items cross-loaded; and The square root AVE is greater than the inter-correlations; Thus, demonstrating discriminant validity

Table 26

Correlations and discriminant validity

	JS	RO	STU	TI	SMTS	WE	TSE
Job satisfaction (JS)	**0.732**						
Role overload (RO)	-0.211	**0.711**					
Social media technology use (STU)	0.301**	-0.011	**0.698**				
Turnover intention (TI)	-0.432**	0.241**	-0.069	**0.905**			
Social media induced-technostress(STS)	-0.065	0.38*	0.059	0.216**	**0.634**		
Work exhaustion (WE)	-0.210**	0.564**	-0.04	0.298**	0.498**	**0.801**	
Technology self-efficacy (TSE)	0.201*	0.278**	0.001	0.254**	0.053	0.002	**0.714**

Table 27

Descriptive statistics for preliminary study

Construct	Items	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Social media induced-technostress-Overload	TECHNO_O1	155	1	7	3.79	2.066	4.269
	TECHNO_O2	155	1	7	3.15	1.882	3.543
	TECHNO_O3	155	1	7	3.74	1.951	3.806
	TECHNO_O4	155	1	7	3.53	1.928	3.718
Social media induced-technostress-Invasion	TECHNO_I1	155	1	7	3.39	1.975	3.901
	TECHNO_I2	155	1	7	4.00	2.092	4.377
	TECHNO_I3	155	1	7	3.26	2.054	4.219

	TECHNO_I4	155	1	7	3.63	2.092	4.377
Social media induced-technostress-Complexity	TECHNO_C1	155	1	7	2.24	1.706	2.910
	TECHNO_C2	155	1	7	2.30	1.707	2.914
	TECHNO_C3	155	1	7	2.62	1.849	3.419
	TECHNO_C4	155	1	7	3.11	2.040	4.163
	TECHNO_C5	155	1	7	2.49	1.737	3.018
Social media induced-technostress-Insecurity	TECHNO_IS1	155	1	7	2.51	1.888	3.563
	TECHNO_IS2	155	1	7	3.46	1.962	3.848
	TECHNO_IS3	155	1	7	2.48	1.680	2.823
	TECHNO_IS4	155	1	7	2.28	1.742	3.036
	TECHNO_IS5	155	1	7	2.84	1.915	3.669
Role Overload	RO1	155	1	7	4.02	1.979	3.915
	RO2	155	1	7	4.08	1.903	3.623
	RO3	155	1	7	4.30	1.988	3.953
	RO4	155	1	7	3.83	1.930	3.725
	RO5	155	1	7	3.95	1.986	3.945
	RO6	155	1	7	4.39	1.832	3.356
	RO7	155	1	7	4.59	1.899	3.606

	RO8	155	1	7	2.97	1.625	2.642
	RO9	155	1	7	3.82	1.915	3.668
	RO10	155	1	7	3.66	1.965	3.863
	RO11	155	1	7	3.49	1.856	3.446
	RO12	155	1	7	3.69	1.871	3.501
	RO13	155	1	7	4.59	1.892	3.580
Work Exhaustion	WE1	155	1	7	2.88	1.851	3.428
	WE2	155	1	7	2.74	1.875	3.517
	WE3	155	1	7	2.81	1.910	3.647
	WE4	155	1	7	2.33	1.656	2.742
	WE5	155	1	7	2.57	1.663	2.766
	WE6	155	1	7	2.97	2.013	4.051
	WE7	155	1	7	3.10	2.006	4.023
	WE8	155	1	7	2.89	1.926	3.709
	WE9	155	1	7	3.07	2.004	4.014
	WE10	155	1	7	2.86	1.824	3.326
	WE11	155	1	7	3.50	2.011	4.044
	WE12	155	1	7	2.77	1.862	3.465
Job Satisfaction	JS11	155	1	7	5.51	1.383	1.914
	JS12	155	1	7	5.34	1.513	2.289
	JS13	155	1	7	4.95	1.787	3.192
	JS21	155	1	7	4.83	1.770	3.132

	JS22	155	1	7	4.53	1.729	2.991
	JS23	155	1	7	4.28	1.829	3.345
	JS24	155	1	7	5.07	1.525	2.326
Turnover Intention	TI1	155	1	7	3.64	2.206	4.869
	TI2	155	1	7	3.33	2.092	4.378
	TI3	155	1	7	3.61	2.303	5.305
Social media technology use	STU1	155	1	7	5.05	1.765	3.114
	STU2	155	1	7	5.45	1.777	3.158
	STU3	155	1	7	5.19	1.787	3.192
	STU4	155	1	7	5.79	1.489	2.217
	STU5	155	1	7	5.74	1.413	1.998
	STU6	155	1	7	5.27	1.543	2.381
	STU7	155	2	7	6.02	1.131	1.279
Technology self-efficacy	TSE1	155	1	7	4.97	1.745	3.044
	TSE2	155	1	7	5.19	1.697	2.880
	TSE3	155	1	7	4.83	1.759	3.093
	TSE4	155	1	7	5.08	1.516	2.298
	TSE5	155	1	7	5.06	1.703	2.899
	TSE6	155	1	7	5.33	1.534	2.352

Table 28

Results of preliminary study. Path Coefficients, Observed T- Statistics, Significant Level for all hypothesized Paths

Hypothesis	Std. coefficients	*t*- value	*p*-value
H1: Social media technology use → Social media-induced technostress	0.14	3.13 **	0.000 **
H2: Social media-induced technostress → Role overload	0.32	8.71**	0.000**
H3: Social media-induced technostress → Work exhaustion	0.23	5.43**	0.000**
H4: Role overload → Work exhaustion	0.31	7.12**	0.000**
H5: Role overload → Job satisfaction	-0.20	3.40**	0.000**
H6: Work exhaustion → Turnover intention	0. 18	4.10**	0.000**
H7: Job satisfaction → Turnover intention	-0.41	10.27**	0.000**
H8a: Social media-induced technostress X Gender → Role overload	0.15	2.25*	0.02*
H8b: Social media-induced technostress X Gender → Work exhaustion	.009	0.76	0.47 (*n.s*)
H9: Social media-induced technostress X Technology self-efficacy → Work exhaustion	-0.18	2.98**	0.005**
Not hypothesized (1): Work exhaustion → Job satisfaction	-0. 08	1.10	0.39(*n.s*)
Not hypothesized (2): Social media-induced technostress → Job satisfaction	0.10	1.62	0.043
Not hypothesized (3): Social media-induced technostress → Turnover intention	0.09	1.59	(*n.s*)
Not hypothesized (4): Role overload → Turnover intention	0.04	0.35	0.058
			(*n.s*)
			0.34 (*n.s*)

Note: ** $p < 0.001$; * $p < 0.05$; *n.s* = Not significant.

List of illustrations

Figure 1. Transactional- Based Model of Stress (Lazarus, 1983) & (Ragu-Nathan et al., 2008).

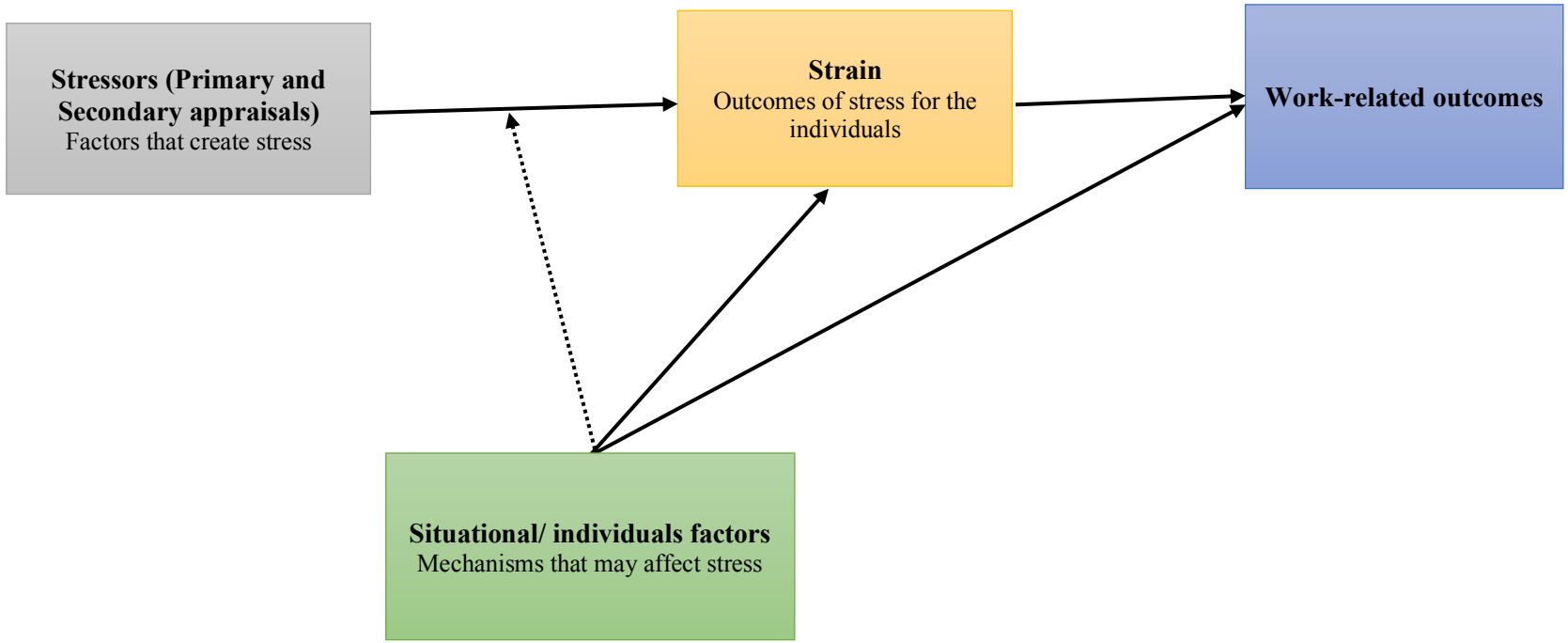


Figure 2 Structural Model Results

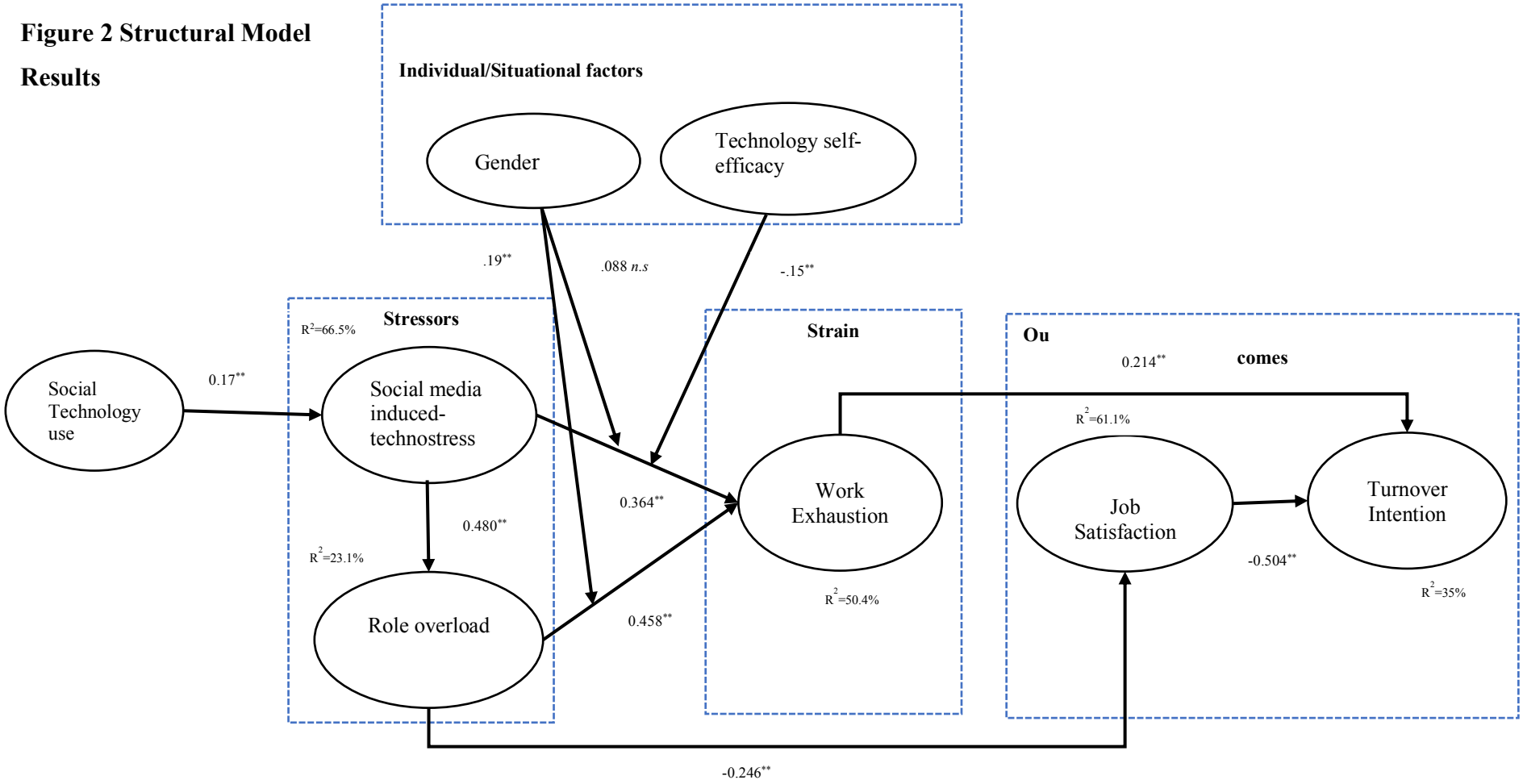


Figure 3. Moderation relationship

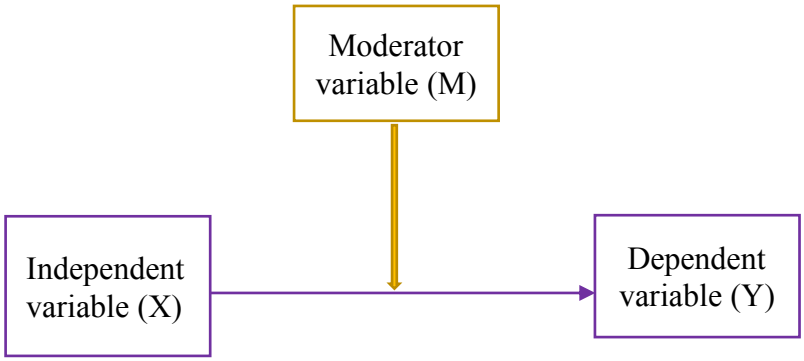


Figure 4. Interaction term

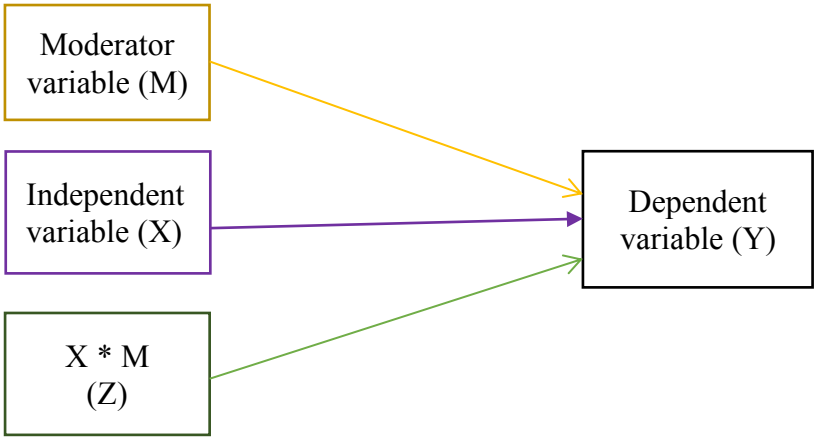


Figure. 5 Multi-group Analysis in PLS Modeling. Moderator Modeling Framework

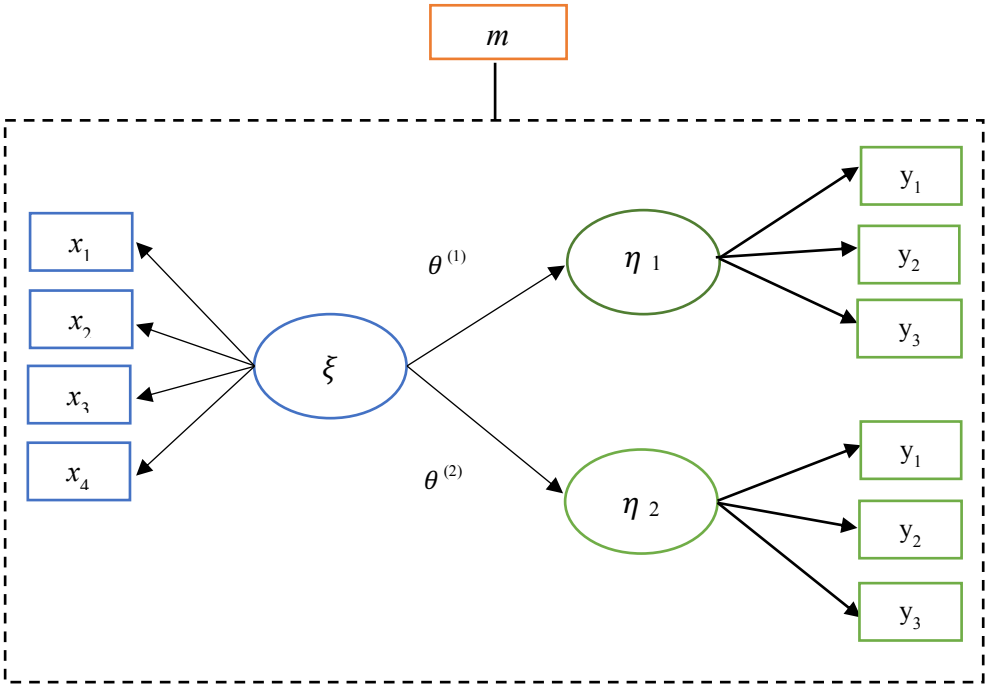


Figure 6. C Process Model 6 - Hayes (2012)

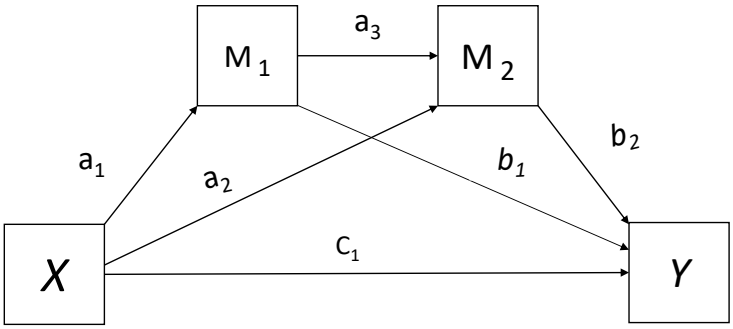


Figure 7 the moderation effect of technology self-efficacy

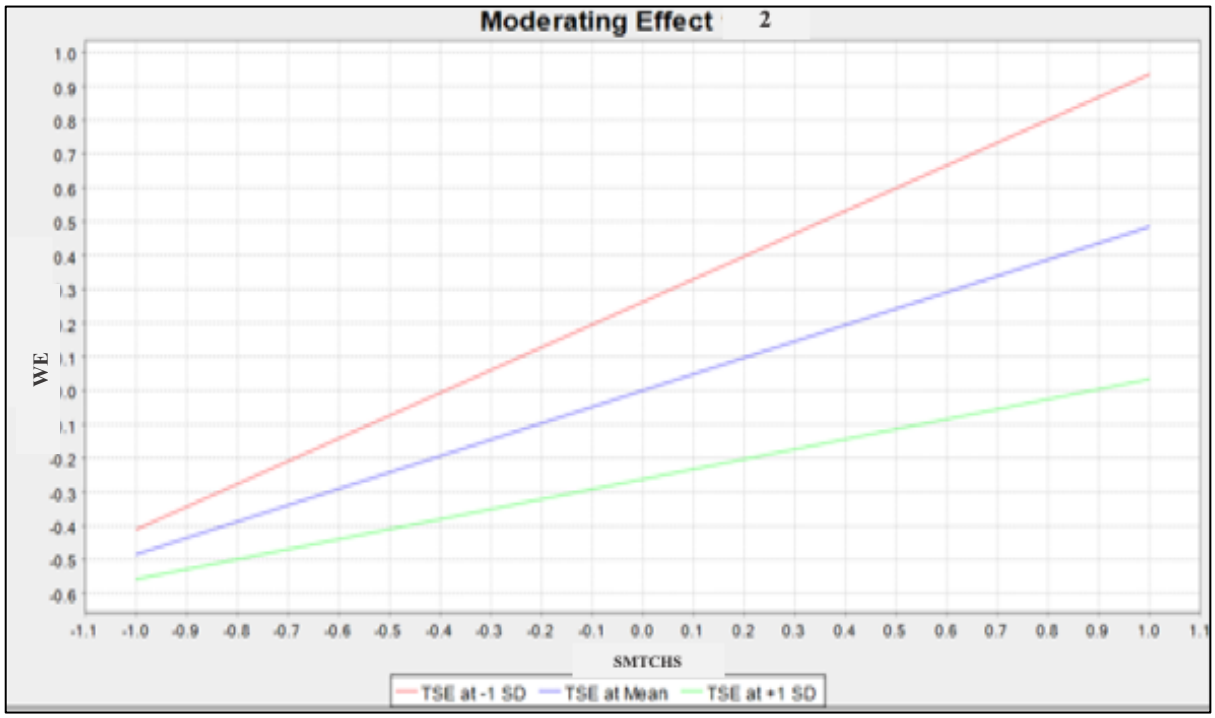
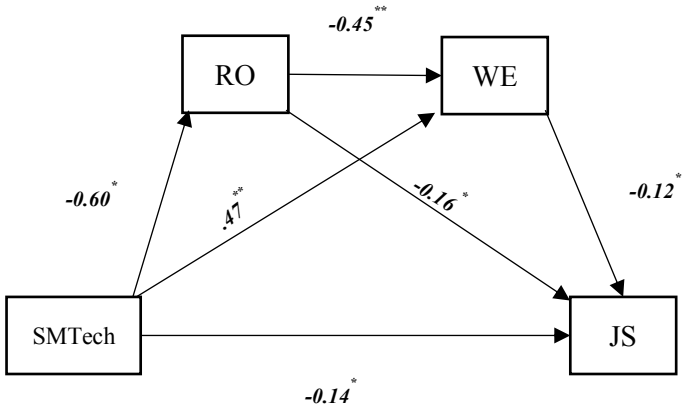
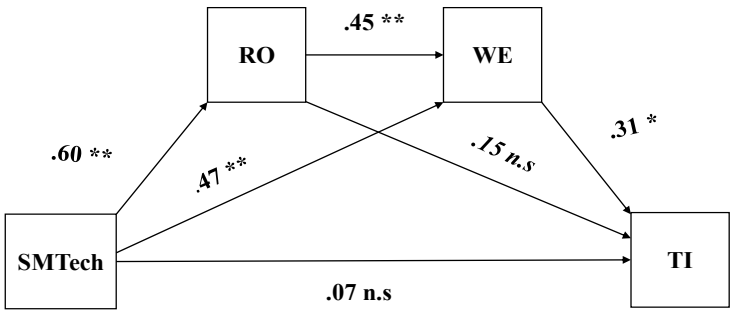


Figure 8 - Model 1



SMTech = social media induced- technostress.
RO = Role overload
WE = Work exhaustion
JS = Job satisfaction
TI = Turnover intention

Figure 8 -Model 2



References

Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. *Criminology, 30*(1), 47-88.

Agnihotri, R., Dingus, R., Hu, M. Y., & Krush, M. T. (2016). Social media: Influencing customer satisfaction in B2B sales. *Industrial Marketing Management, 53*, 172-180.

Agnihotri, R., Kothandaraman, P., Kashyap, R., & Singh, R. (2012). Bringing "social" into sales: The impact of salespeople's social media use on service behaviors and value creation. *Journal of Personal Selling & Sales Management, 32*(3), 333-348.

Aguinis, H., Edwards, J. R., & Bradley, K. J. (2017). Improving our understanding of moderation and mediation in strategic management research. *Organizational Research Methods, 20*(4), 665-685.

Ahearne, M., Srinivasan, N., & Weinstein, L. (2004). Effect of technology on sales performance: Progressing from technology acceptance to technology usage and consequence. *Journal of Personal Selling & Sales Management, 24*(4), 297-310.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211.

Ajzen, I and Fishbein, M. (1980), Understanding Attitudes and Predicting Social Behavior *(Englewood Cliffs, NJ: Prentice-Hall)*

Anderson, A. A., Brossard, D., Scheufele, D. A., Xenos, M. A., & Ladwig, P. (2014). The "nasty effect:" online incivility and risk perceptions of emerging technologies. *Journal of Computer-Mediated Communication, 19*(3), 373-387.

Andzulis, J. "., Panagopoulos, N. G., & Rapp, A. (2012). A review of social media and implications for the sales process. *Journal of Personal Selling & Sales Management, 32*(3), 305-316.

Andzulis, J. "., Panagopoulos, N. G., & Rapp, A. (2012). A review of social media and implications for the sales process. *Journal of Personal Selling & Sales Management, 32*(3), 305-316.

Andzulis, J., Baron, S., Daly, A., Dann, S., Daunt, K. L., Edvardsson, B., . . . Greer, D. A. (2013). Global perspectives on service.

Ayyagari, R., Grover, V., & Purvis, R. (2011). Technostress: Technological antecedents and implications. *MIS Quarterly, 35*(4), 831-858.

Babakus, E., Cravens, D. W., Johnston, M., & Moncrief, W. C. (1996). Examining the role of organizational variables in the salesperson job satisfaction model. *Journal of Personal Selling & Sales Management, 16*(3), 33-46.

Babakus, E., Cravens, D. W., Johnston, M., & Moncrief, W. C. (1999). The role of emotional exhaustion in sales force attitude and behavior relationships. *Journal of the Academy of Marketing Science, 27*(1), 58-70.

Babakus, E., Cravens, D. W., Johnston, M., & Moncrief, W. C. (1999). The role of emotional exhaustion in sales force attitude and behavior relationships. *Journal of the Academy of Marketing Science, 27*(1), 58-70.

Babakus, E., Cravens, D. W., Johnston, M., & Moncrief, W. C. (1999). The role of emotional exhaustion in sales force attitude and behavior relationships. *Journal of the Academy of Marketing Science, 27*(1), 58-70.

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*(9), 1175.

Bandura, A. (1989). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology, 25*(5), 729.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*(1), 1-26.

Barclay, D., Higgins, C., & Thompson, R. (1995). *The partial least squares (PLS) approach to casual modeling: Personal computer adoption ans use as an illustration*

Barnes, S., Green, A., & de Hoyos, M. (2015). Crowdsourcing and work: Individual factors and circumstances influencing employability. *New Technology, Work and Employment, 30*(1), 16-31.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173.

Baron, R. S. (1986). Distraction-conflict theory: Progress and problems. *Advances in experimental social psychology* (pp. 1-40) Elsevier.

Bartneck, C., Duenser, A., Moltchanova, E., & Zawieska, K. (2015). Comparing the similarity of responses received from studies in Amazon's mechanical turk to studies conducted online and with direct recruitment. *PloS One, 10*(4), e0121595.

Bartunek, J. M., & Reynolds, C. (1983). Boundary spanning and public accountant role stress. *The Journal of Social Psychology, 121*(1), 65-72.

Baumgartner, H., & Steenkamp, J. E. (1998). Multi-group latent variable models for varying numbers of items and factors with cross-national and longitudinal applications. *Marketing Letters, 9*(1), 21-35.

Beebe, K. R., Pell, R. J., & Seasholtz, M. B. (1998). *Chemometrics: A practical guide* Wiley-Interscience.

Beehr, T. (1998). An organizational psychology meta-model of occupational stress. *Theories of Organizational Stress,* , 6-27.

Beehr, T. A., Jex, S. M., Stacy, B. A., & Murray, M. A. (2000). Work stressors and coworker support as predictors of individual strain and job performance. *Journal of Organizational Behavior, 21*(4), 391-405.

Behrend, T. S., Sharek, D. J., Meade, A. W., & Wiebe, E. N. (2011). The viability of crowdsourcing for survey research. *Behavior Research Methods, 43*(3), 800.

Behrman, D. N., & Perreault Jr, W. D. (1984). A role stress model of the performance and satisfaction of industrial salespersons. *Journal of Marketing, 48*(4), 9-21.

Belasco, J. A. (1966). The salesman's role revisited. *Journal of Marketing, 30*(2), 6-8.

Berg, J. M., Grant, A. M., & Johnson, V. (2010). When callings are calling: Crafting work and leisure in pursuit of unanswered occupational callings. *Organization Science, 21*(5), 973-994.

Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon. com's mechanical turk. *Political Analysis, 20*(3), 351-368.

Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon. com's mechanical turk. *Political Analysis, 20*(3), 351-368.

Bernstein, I. H., & Nunnally, J. (1994). Psychometric theory. *New York: McGraw-Hill.Oliva, TA, Oliver, RL, & MacMillan, IC (1992).A Catastrophe Model for Developing Service Satisfaction Strategies.Journal of Marketing, 56*, 83-95.

Bigliardi, B., Petroni, A., & Ivo Dormio, A. (2005). Organizational socialization, career aspirations and turnover intentions among design engineers. *Leadership & Organization Development Journal, 26*(6), 424-441.

Bigliardi, B., Petroni, A., & Ivo Dormio, A. (2005). Organizational socialization, career aspirations and turnover intentions among design engineers. *Leadership & Organization Development Journal, 26*(6), 424-441.

Brod, C. (1984). Technostress: The human cost of the computer revolution. *Reading, Mass: Addison-Wesley Publishing Co.*

Brillhart, P. E. 2004. Technostress in the workplace: Managing stress in the electronic workplace. *J. Amer. Acad. Bus. 5(1/2) 302–307.*

Bluedorn, A. C. (1982). A unified model of turnover from organizations. *Human Relations, 35*(2), 135-153.

Bluedorn, A. C. (1982). A unified model of turnover from organizations. *Human Relations, 35*(2), 135-153.

Bodnar, K., & Cohen, J. L. (2011). *The b2b social media book: Become a marketing superstar by generating leads with blogging, LinkedIn, twitter, facebook, email, and more* John Wiley & Sons.

Boles, J. S., & Babin, B. J. (1996). On the front lines: Stress, conflict, and the customer service provider. *Journal of Business Research, 37*(1), 41-50.

Boles, J. S., Dudley, G. W., Onyemah, V., Rouziès, D., & Weeks, W. A. (2012). Sales force turnover and retention: A research agenda. *Journal of Personal Selling & Sales Management, 32*(1), 131-140.

Boles, J. S., Wood, J. A., & Johnson, J. (2003). Interrelationships of role conflict, role ambiguity, and work–family conflict with different facets of job satisfaction and the moderating effects of gender. *Journal of Personal Selling & Sales Management, 23*(2), 99-113.

Boyar, S. L., Maertz Jr, C. P., Mosley Jr, D. C., & Carr, J. C. (2008). The impact of work/family demand on work-family conflict. *Journal of Managerial Psychology, 23*(3), 215-235.

Bradley, S. P., & Bartlett, N. (2011). Social networks: The portals of web 2.0. *Harvard Business School Technology & Operations Mgt.Unit Case,* (708-488)

Brawley, A. M., & Pury, C. L. (2016). Work experiences on MTurk: Job satisfaction, turnover, and information sharing. *Computers in Human Behavior, 54*, 531-546.

Bright, L. F., Kleiser, S. B., & Grau, S. L. (2015). Too much facebook? an exploratory examination of social media fatigue. *Computers in Human Behavior, 44*, 148-155.

Brooks, S. (2015). Does personal social media usage affect efficiency and well-being? *Computers in Human Behavior, 46*, 26-37.

Brooks, S., Longstreet, P., & Califf, C. (2017). Social media induced technostress and its impact on internet addiction: A distraction-conflict theory perspective. *AIS Transactions on Human-Computer Interaction, 9*(2), 99-122.

Brown, E. C., Ragsdale, C. T., & Carter, A. E. (2007). A grouping genetic algorithm for the multiple traveling salesperson problem. *International Journal of Information Technology & Decision Making, 6*(02), 333-347.

Brown, I. T. (2002). Individual and technological factors affecting perceived ease of use of web-based learning technologies in a developing country. *The Electronic Journal of Information Systems in Developing Countries, 9*(1), 1-15.

Brown, S. P., Jones, E., & Leigh, T. W. (2005). The attenuating effect of role overload on relationships linking self-efficacy and goal level to work performance. *Journal of Applied Psychology, 90*(5), 972.

Brown, S. P., & Peterson, R. A. (1993). Antecedents and consequences of salesperson job satisfaction: Meta-analysis and assessment of causal effects. *Journal of Marketing Research, 30*(1), 63-77.

Bryman, A., & Bell, E. (2007). Business research strategies. *Business Research Methods,*

Bucher, E., Fieseler, C., & Suphan, A. (2013). The stress potential of social media in the workplace. *Information, Communication & Society, 16*(10), 1639-1667.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's mechanical turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science, 6*(1), 3-5.

Burke, R. J., & Greenglass, E. (1995). A longitudinal study of psychological burnout in teachers. *Human Relations, 48*(2), 187-202.

Burke, R. J., & Greenglass, E. (1995). A longitudinal study of psychological burnout in teachers. *Human Relations, 48*(2), 187-202.

Busch, P., & Bush, R. F. (1978). Women contrasted to men in the industrial salesforce: Job satisfaction, values, role clarity, performance, and propensity to leave. *Journal of Marketing Research, 15*(3), 438-448.

Cannon, W. B. (1929). Organization for physiological homeostasis. *Physiological Reviews, 9*(3), 399-431.

Cartwright, S., & Cooper, C. L. (1997). *Managing workplace stress* Sage.

Chandra, S., Srivastava, S. C., & Shirish, A. (2015). Do technostress creators influence employee innovation? Paper presented at the *Pacis,* 93.

Chin, W. W. (1998). *Commentary: Issues and Opinion on Structural Equation Modeling,*

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research, 295*(2), 295-336.

Chin, W. W., & Dibbern, J. (2010). An introduction to a permutation based procedure for multi-group PLS analysis: Results of tests of differences on simulated data and a cross cultural analysis of the

sourcing of information system services between germany and the USA. *Handbook of partial least squares* (pp. 171-193) Springer.

Christ, P., & Anderson, R. (2011). The impact of technology on evolving roles of salespeople. *Journal of Historical Research in Marketing, 3*(2), 173-193.

Churchill Jr, G. A., Ford, N. M., & Walker Jr, O. C. (1974). Measuring the job satisfaction of industrial salesmen. *Journal of Marketing Research, 11*(3), 254-260.

Clark, K., & Kalin, S. (1996). Technostressed out? how to cope in the digital age. *Library Journal, 121*(13), 30-32.

Clifford, S., & Jerit, J. (2014). Is there a cost to convenience? an experimental comparison of data quality in laboratory and online studies. *Journal of Experimental Political Science, 1*(2), 120-131.

Cooper, C. L., Cooper, C. P., Dewe, P. J., O'Driscoll, M. P., O'Driscoll, M. P., & Dewe, P. J. (2001). *Organizational stress: A review and critique of theory, research, and applications* Sage.

Cooper, C. L., & Davidson, M. (1987). Sources of stress at work and their relation to stressors in non-working environments. *Psychological Factors at Work and their Relation to Health,* , 99-123.

Cox, M. J., Cox, K., & Preston, C. (2000). What factors support or prevent teachers from using ICT in their classrooms?

Cranny, C., Smith, P. C., & Stone, E. (1992). Job satisfaction: How people feel about their jobs.

Creswell, J. W. (2009). *Mapping the Field of Mixed Methods Research,*

Cronbach, L. J. (1971). Test validation. *Educational Measurement,*

Crump, M. J., McDonnell, J. V., & Gureckis, T. M. (2013). Evaluating amazon's mechanical turk as a tool for experimental behavioral research. *PloS One, 8*(3), e57410.

Curry, J. P., Wakefield, D. S., Price, J. L., & Mueller, C. W. (1986). On the causal ordering of job satisfaction and organizational commitment. *Academy of Management Journal, 29*(4), 847-858.

Darley, W. K., & Smith, R. E. (1995). Gender differences in information processing strategies: An empirical test of the selectivity model in advertising response. *Journal of Advertising, 24*(1), 41-56.

Davis, A., & Gibson, L. (1994). Designing employee welfare provision. *Personnel Review, 23*(7), 33-45.

Davis, F. D. (1993). User acceptance of information technology: System characteristics, user perceptions and behavioral impacts. *International Journal of Man-Machine Studies, 38*(3), 475-487.

De Beuckelaer, A., & Lievens, F. (2009). Measurement equivalence of paper-and-pencil and internet organisational surveys: A large scale examination in 16 countries. *Applied Psychology, 58*(2), 336-361.

De Croon, E. M., Sluiter, J. K., Blonk, R. W., Broersen, J. P., & Frings-Dresen, M. H. (2004). Stressful work, psychological job strain, and turnover: A 2-year prospective cohort study of truck drivers. *Journal of Applied Psychology, 89*(3), 442.

Delone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems, 19*(4), 9-30.

Devaraj, S., Easley, R. F., & Crant, J. M. (2008). Research note—how does personality matter? relating the five-factor model to technology acceptance and use. *Information Systems Research, 19*(1), 93-105.

Devaraj, S., Easley, R. F., & Crant, J. M. (2008). Research note—how does personality matter? relating the five-factor model to technology acceptance and use. *Information Systems Research, 19*(1), 93-105.

Dibbern, J., & Chin, W. W. (2005). Multi-group comparison: Testing a PLS model on the sourcing of application software services across germany and the USA using a permutation based algorithm. *Manual of PLS-Path Modelling.Stuttgart, Schäffer-Poeschel,*

Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology, 87*(4), 611.

Duxbury, L., & Higgins, C. (2001). Work-life balance in the new millennium: Where are we? where do we need to go? CPRN discussion paper.

Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology, 2*(1), 335-362.

Engle, R. L., & Barnes, M. L. (2000). Sales force automation usage, effectiveness, and cost-benefit in germany, england and the united states. *Journal of Business & Industrial Marketing, 15*(4), 216-241.

Etaugh, C., & Moss, C. (2001). Attitudes of employed women toward parents who choose full-time or part-time employment following their child's birth. *Sex Roles, 44*(9-10), 611-619.

F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) an emerging tool in business research. *European Business Review, 26*(2), 106-121.

Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling.* University of Akron Press.

Fishbein, M. (1967). Attitude and the prediction of behavior. *Readings in Attitude Theory and Measurement,*

Fisher, W., & Wesolkowski, S. (1999). Tempering technostress. *IEEE Technology and Society Magazine, 18*(1), 28-42.

Fogarty, T. J., Singh, J., Rhoads, G. K., & Moore, R. K. (2000). Antecedents and consequences of burnout in accounting: Beyond the role stress model. *Behavioral Research in Accounting, 12*, 31-68.

Fonner, K. L., & Roloff, M. E. (2012). Testing the connectivity paradox: Linking teleworkers' communication media use to social presence, stress from interruptions, and organizational identification. *Communication Monographs, 79*(2), 205-231.

Fornell, C., & Bookstein, F. L. (1982). Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of Marketing Research, 19*(4), 440-452.

Fornell, C., & Larcker, D. F. (1981). *Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics,*

Fournier, C., Tanner Jr, J. F., Chonko, L. B., & Manolis, C. (2010). The moderating role of ethical climate on salesperson propensity to leave. *Journal of Personal Selling & Sales Management, 30*(1), 7-22.

Fowler Jr, F. J. (2013). *Survey research methods* Sage publications.

Fowler, H. W. (2015). *Fowler's dictionary of modern english usage* Oxford University Press, USA.

Frese, M., & Zapf, D. (1994). Action as the core of work psychology: A german approach. *Handbook of Industrial and Organizational Psychology, 4*(2), 271-340.

Fu, F. Q., Richards, K. A., Hughes, D. E., & Jones, E. (2010). Motivating salespeople to sell new products: The relative influence of attitudes, subjective norms, and self-efficacy. *Journal of Marketing, 74*(6), 61-76.

Fugate, D. L., Decker, P. J., & Brewer, J. J. (1988). Women in professional selling: A human resource management perspective. *Journal of Personal Selling & Sales Management, 8*(3), 33-41.

Fujimoto, Y., Ferdous, A. S., Sekiguchi, T., & Sugianto, L. (2016). The effect of mobile technology usage on work engagement and emotional exhaustion in japan. *Journal of Business Research, 69*(9), 3315-3323.

Fujimoto, Y., Ferdous, A. S., Sekiguchi, T., & Sugianto, L. (2016). The effect of mobile technology usage on work engagement and emotional exhaustion in japan. *Journal of Business Research, 69*(9), 3315-3323.

Gable, M., & Reed, B. (1987). The current status of women in professional selling. *Journal of Personal Selling & Sales Management, 7*(1), 33-40.

Gaines, J., & Jermier, J. M. (1983). Emotional exhaustion in a high stress organization. *Academy of Management Journal, 26*(4), 567-586.

Gefen, D., Straub, D., & Boudreau, M. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information Systems, 4*(1), 7.

Geiger, S., & Turley, D. (2006). The perceived impact of information technology on salespeople's relational competencies. *Journal of Marketing Management, 22*(7-8), 827-851.

Gerloff, E. A., & Quick, J. C. (1984). Task role ambiguity and conflict in supervisor-subordinate relationships. *Journal of Applied Communication Research, 12*(2), 90-102.

Groberman, A. (2011). Difference between stress and anxiety. *Retrieved February 26, 2012, from <http://www.psyweb.com/articles/anxiety/difference-between- stress-and-anxiety>*.

Good, L. K., Page, T. J., & Young, C. E. (1996). Assessing hierarchical differences in job-related attitudes and turnover among retail managers. *Journal of the Academy of Marketing Science, 24*(2), 148-156.

Goodhue, D. L., & Thompson, R. L. (1995). Task-technology fit and individual performance. *MIS Quarterly,* , 213-236.

Goodman, J. K., Cryder, C. E., & Cheema, A. (2013). Data collection in a flat world: The strengths and weaknesses of mechanical turk samples. *Journal of Behavioral Decision Making, 26*(3), 213-224.

Goodman, J. K., Cryder, C. E., & Cheema, A. (2013). Data collection in a flat world: The strengths and weaknesses of mechanical turk samples. *Journal of Behavioral Decision Making, 26*(3), 213-224.

Goolsby, J. R. (1992). A theory of role stress in boundary spanning positions of marketing organizations. *Journal of the Academy of Marketing Science, 20*(2), 155-164.

Gosling, S. D., Sandy, C. J., John, O. P., & Potter, J. (2010). Wired but not WEIRD: The promise of the internet in reaching more diverse samples. *Behavioral and Brain Sciences, 33*(2-3), 94-95.

Guarino, B. (2015). How many full-time mechanical turks work for amazon? can you live at two cents a microjob? *Inverse Innovation,*

Guesalaga, R. (2016). The use of social media in sales: Individual and organizational antecedents, and the role of customer engagement in social media. *Industrial Marketing Management, 54*, 71-79.

Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling* Sage Publications.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice, 19*(2), 139-152.

Harris, M. (2014). Amazon's mechanical turk workers protest:'I am a human being, not an algorithm.'. *The Guardian, 3*

Hayes, A. F. (2012). *PROCESS: A Versatile Computational Tool for Observed Variable Mediation, Moderation, and Conditional Process Modeling,*

Henseler, J. (2007). A new and simple approach to multi-group analysis in partial least squares path modeling.

Henseler, J., & Chin, W. W. (2010). A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling. *Structural Equation Modeling, 17*(1), 82-109.

Henseler, J., & Fassott, G. (2010). Testing moderating effects in PLS path models: An illustration of available procedures. *Handbook of partial least squares* (pp. 713-735) Springer.

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *New challenges to international marketing* (pp. 277-319) Emerald Group Publishing Limited.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513.

Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology, 6*(4), 307-324.

Homburg, C., & Stock, R. M. (2004). The link between salespeople's job satisfaction and customer satisfaction in a business-to-business context: A dyadic analysis. *Journal of the Academy of Marketing Science, 32*(2), 144.

Homburg, C., & Stock, R. M. (2005). Exploring the conditions under which salesperson work satisfaction can lead to customer satisfaction. *Psychology & Marketing, 22*(5), 393-420.

House, J. S. (1980). *Occupational stress and the mental and physical health of factory workers* Survey Research Center, Institute for Social Research, University of Michigan.

Howe, J. (2006). The rise of crowdsourcing. *Wired Magazine, 14*(6), 1-4.

Hsu, C., & Lin, J. C. (2008). Acceptance of blog usage: The roles of technology acceptance, social influence and knowledge sharing motivation. *Information & Management, 45*(1), 65-74.

Huang, J. L., Liu, M., & Bowling, N. A. (2015). Insufficient effort responding: Examining an insidious confound in survey data. *Journal of Applied Psychology, 100*(3), 828.

Huber, F., Herrmann, A., Meyer, F., Vogel, J., & Vollhardt, K. (2007). Kausalmodellierung mit partial least squares: Eine anwendungsorientierte einführung. gabler, betriebswirt. *Vlg., Wiesbaden, Germany,*

Hung, W., Chang, L., & Lin, C. (2011). Managing the risk of overusing mobile phones in the working environment: A study of ubiquitous technostress. Paper presented at the *Pacis,* 81.

Iaffaldano, M. T., & Muchinsky, P. M. (1985). Job satisfaction and job performance: A meta-analysis. *Psychological Bulletin, 97*(2), 251.

Inks, S. A., Borders, A. L., Lester, D., & Loe, T. W. (2019). Are Women's sales skills better than Men's?

Itani, O. S., Agnihotri, R., & Dingus, R. (2017). Social media use in B2b sales and its impact on competitive intelligence collection and adaptive selling: Examining the role of learning orientation as an enabler. *Industrial Marketing Management, 66*, 64-79.

Ivancevich, J. M., Napier, H. A., & Wetherbe, J. C. (1985). An empirical study of occupational stress, attitudes and health among information systems personnel. *Information & Management, 9*(2), 77-85.

Ivancevich, J. M., & Matteson, M. T. (1980). Optimizing human resources: A case for preventive health and stress management. *Organizational Dynamics, 9*(2), 5-25.

Jackson, S. E., & Maslach, C. (1982). After-effects of job-related stress: Families as victims. *Journal of Organizational Behavior, 3*(1), 63-77.

Jackson, S. E., Schwab, R. L., & Schuler, R. S. (1986). Toward an understanding of the burnout phenomenon. *Journal of Applied Psychology, 71*(4), 630.

Jaramillo, F., Mulki, J. P., & Solomon, P. (2006). The role of ethical climate on salesperson's role stress, job attitudes, turnover intention, and job performance. *Journal of Personal Selling & Sales Management, 26*(3), 271-282.

Jarvis, C. B., MacKenzie, S. B., & Podsakoff, P. M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research, 30*(2), 199-218.

Jex, S. M., Beehr, T. A., & Roberts, C. K. (1992). The meaning of occupational stress items to survey respondents. *Journal of Applied Psychology, 77*(5), 623.

Joag, S. G., Gentry, J. W., & Ekstrom, K. (1991). An investigation of a role/goal model of wives' role overload reduction strategies. *ACR North American Advances,*

Joag, S. G., Gentry, J. W., & Ekstrom, K. (1991). An investigation of a role/goal model of wives' role overload reduction strategies. *ACR North American Advances,*

Jones, E., Chonko, L., Rangarajan, D., & Roberts, J. (2007). The role of overload on job attitudes, turnover intentions, and salesperson performance. *Journal of Business Research, 60*(7), 663-671.

Jones, F., & Fletcher, B. (1996). Taking work home: A study of daily fluctuations in work stressors, effects on moods and impacts on marital partners. *Journal of Occupational and Organizational Psychology, 69*(1), 89-106.

Jöreskog, K. G., & Wold, H. O. (1982). *Systems under indirect observation: Causality, structure, prediction* North Holland.

Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology, 87*(4), 765.

Kahn, R. L., & Byosiere, P. (1992). Stress in organizations.

Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). Organizational stress: Studies in role conflict and ambiguity.

Kalra, A., Agnihotri, R., Chaker, N. N., Singh, R. K., & Das, B. K. (2017). Connect within to connect outside: Effect of salespeople's political skill on relationship performance. *Journal of Personal Selling & Sales Management, 37*(4), 332-348.

Kanner, A. D., Kafry, D., & Pines, A. (1978). Conspicuous in its absence: The lack of positive conditions as a source of stress. *Journal of Human Stress, 4*(4), 33-39.

Kase, S. E., & Ritter, F. E. (2009). Gender and computer anxiety. *Encyclopedia of information science and technology (second ed.,). IGI Global (pp. 1612–1620). IGI Global.*

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! the challenges and opportunities of social media. *Business Horizons, 53*(1), 59-68.

Kapoor, K. K., Tamilmani, K., Rana, N. P., Patil, P., Dwivedi, Y. K., & Nerur, S. (2018). Advances in social media research: Past, present and future. *Information Systems Frontiers,* , 1-28.

Kees, J., Berry, C., Burton, S., & Sheehan, K. (2017). An analysis of data quality: Professional panels, student subject pools, and amazon's mechanical turk. *Journal of Advertising, 46*(1), 141-155.

Keil, M., Tan, B. C., Wei, K., Saarinen, T., Tuunainen, V., & Wassenaar, A. (2000). A cross-cultural study on escalation of commitment behavior in software projects. *MIS Quarterly,* , 299-325.

Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. *The Handbook of Social Psychology, 1*(4), 233-265.

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? get serious! understanding the functional building blocks of social media. *Business Horizons, 54*(3), 241-251.

Koeske, G. F., Kirk, S. A., & Koeske, R. D. (1993). Coping with job stress: Which strategies work best? *Journal of Occupational and Organizational Psychology, 66*(4), 319-335.

Koh, J., & Kim, Y. (2004). Knowledge sharing in virtual communities: An e-business perspective. *Expert Systems with Applications, 26*(2), 155-166.

Kolb, D. G. (2008). Exploring the metaphor of connectivity: Attributes, dimensions and duality. *Organization Studies, 29*(1), 127-144.

Kothari, C. R. (2004). *Research methodology: Methods and techniques* New Age International.

Lagace, R. R., Castleberry, S. B., & Ridnour, R. E. (1993). An exploratory salesforce study of the relationship between leader-member exchange and motivation, role stress, and manager evaluation. *Journal of Applied Business Research, 9*(4), 110.

Laumer, S., Maier, C., & Weinert, C. (2013). The negative side of ICT-enabled communication: The case of social interaction overload in online social networks. Paper presented at the *Proceeding of ECIS, , 41*(2) 210-228.

Lazarus, R. S. (1966). Psychological stress and the coping process.

Lazarus, R. S. (1990). Theory-based stress measurement. *Psychological Inquiry, 1*(1), 3-13.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping* Springer publishing company.

Lee, R. T., & Ashforth, B. E. (1990). On the meaning of maslach's three dimensions of burnout. *Journal of Applied Psychology, 75*(6), 743.

Lee, R. T., & Ashforth, B. E. (1993). A longitudinal study of burnout among supervisors and managers: Comparisons between the leiter and maslach (1988) and golembiewski et al.(1986) models. *Organizational Behavior and Human Decision Processes, 54*(3), 369-398.

Lei, C. F., & Ngai, E. W. (2014). The double-edged nature of technostress on work performance: A research model and research agenda.

Leimeister, J. M., Sidiras, P., & Krcmar, H. (2006). Exploring success factors of virtual communities: The perspectives of members and operators. *Journal of Organizational Computing and Electronic Commerce, 16*(3-4), 279-300.

Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior, 9*(4), 297-308.

Lent, R. W., & Brown, S. D. (2006). Integrating person and situation perspectives on work satisfaction: A social-cognitive view. *Journal of Vocational Behavior, 69*(2), 236-247.

Levin, M. A., Hansen, J. M., & Laverie, D. A. (2012). Toward understanding new sales employees' participation in marketing-related technology: Motivation, voluntariness, and past performance. *Journal of Personal Selling & Sales Management, 32*(3), 379-393.

Lewis, B. R., Templeton, G. F., & Byrd, T. A. (2005). A methodology for construct development in MIS research. *European Journal of Information Systems, 14*(4), 388-400.

Locke, E. A., Sirota, D., & Wolfson, A. D. (1976). An experimental case study of the successes and failures of job enrichment in a government agency. *Journal of Applied Psychology, 61*(6), 701.

Lovett, M., Bajaba, S., Lovett, M., & Simmering, M. J. (2018). Data quality from crowdsourced surveys: A mixed method inquiry into perceptions of amazon's mechanical turk masters. *Applied Psychology, 67*(2), 339-366.

MacKinnon, D. P. (2011). Integrating mediators and moderators in research design. *Research on Social Work Practice, 21*(6), 675-681.

Maier, C. (2014). Technostress: Theoretical foundation and empirical evidence.

Maier, C., Laumer, S., Eckhardt, A., & Weitzel, T. (2012). Online social networks as a source and symbol of stress: An empirical analysis.

Maier, C., Laumer, S., Weinert, C., & Weitzel, T. (2015). The effects of technostress and switching stress on discontinued use of social networking services: A study of facebook use. *Information Systems Journal, 25*(3), 275-308.

Mandel, M. 2005. The real reasons you're working so hard. *Business Week (Oct. 3) 60–67.*

Malhotra, M. K., & Grover, V. (1998). An assessment of survey research in POM: From constructs to theory. *Journal of Operations Management, 16*(4), 407-425.

Mangold, W. G., & Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons, 52*(4), 357-365.

Marcoulides, G. A., Chin, W. W., & Saunders, C. (2009). A critical look at partial least squares modeling. *Mis Quarterly, 33*(1), 171-175.

Marshall, G. W., Moncrief, W. C., Rudd, J. M., & Lee, N. (2012). Revolution in sales: The impact of social media and related technology on the selling environment. *Journal of Personal Selling & Sales Management, 32*(3), 349-363.

Marketo (2010), *The Definitive Guide to B2B Social Media: A Marketo Workbook, San Mateo, CA (available at http://docs .cdn.marketo.com/Guide-B2B-Social-Media-Part2.pdf).*

Maslach, C., & Jackson, S. E. (1984). Burnout in organizational settings. *Applied Social Psychology Annual,*

Mathieu, J., Ahearne, M., & Taylor, S. R. (2007). A longitudinal cross-level model of leader and salesperson influences on sales force technology use and performance. *Journal of Applied Psychology, 92*(2), 528.

Mazmanian, M., Orlikowski, W. J., & Yates, J. (2013). The autonomy paradox: The implications of mobile email devices for knowledge professionals. *Organization Science, 24*(5), 1337-1357.

McElroy, J. C., Hendrickson, A. R., Townsend, A. M., & DeMarie, S. M. (2007). Dispositional factors in internet use: Personality versus cognitive style. *MIS Quarterly, 31*(4), 809-820.

McGrath, J. E. (1970). *Social and Psychological Factors in Stress,*

Mithas, S., Krishnan, M. S., & Fornell, C. (2005). Why do customer relationship management applications affect customer satisfaction? *Journal of Marketing, 69*(4), 201-209.

Mobley, W. H. (1982). Some unanswered questions in turnover and withdrawal research. *Academy of Management Review, 7*(1), 111-116.

Mohr, G., Müller, A., Rigotti, T., Aycan, Z., & Tschan, F. (2006). The assessment of psychological strain in work contexts. *European Journal of Psychological Assessment, 22*(3), 198-206.

Moncrief, W. C., Babakus, E., Cravens, D. W., & Johnston, M. W. (2000). Examining gender differences in field sales organizations. *Journal of Business Research, 49*(3), 245-257.

Moore, J. E. (2000). One road to turnover: An examination of work exhaustion in technology professionals. *MIS Quarterly,* , 141-168.

Morris, M. G., & Venkatesh, V. (2010). Job characteristics and job satisfaction: Understanding the role of enterprise resource planning system implementation. *Mis Quarterly, 34*(1)

Mulki, J. P., Jaramillo, F., & Locander, W. B. (2006). Emotional exhaustion and organizational deviance: Can the right job and a leader's style make a difference? *Journal of Business Research, 59*(12), 1222-1230.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review, 23*(2), 242-266.

Narasimhamurthy, N. (2014). Use and rise of social media as election campaign medium in india. *International Journal of Interdisciplinary and Multidisciplinary Studies, 1*(8), 202-209.

Narayanan, L., Menon, S., & Spector, P. (1999). A cross-cultural comparison of job stressors and reactions among employees holding comparable jobs in two countries. *International Journal of Stress Management, 6*(3), 197-212.

Nelson, D. L., & Kletke, M. G. (1990). Individual adjustment during technological innovation: A research framework. *Behaviour & Information Technology, 9*(4), 257-271.

Nelson, D. L., & Kletke, M. G. (1990). Individual adjustment during technological innovation: A research framework. *Behaviour & Information Technology, 9*(4), 257-271.

Netemeyer, R. G., Brashear-Alejandro, T., & Boles, J. S. (2004). A cross-national model of job-related outcomes of work role and family role variables: A retail sales context. *Journal of the Academy of Marketing Science, 32*(1), 49-60.

Okazaki, S., & dos Santos, Luiz Miguel Renda. (2012). Understanding e-learning adoption in brazil: Major determinants and gender effects. *The International Review of Research in Open and Distributed Learning, 13*(4), 91-106.

Oppenheimer, D. M., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation checks: Detecting satisficing to increase statistical power. *Journal of Experimental Social Psychology, 45*(4), 867-872.

O'Reilly, T., & Battelle, J. (2009). *Web squared: Web 2.0 five years on* " O'Reilly Media, Inc.".

Orlikowski, W. J., & Iacono, C. S. (2001). Research commentary: Desperately seeking the "IT" in IT research—A call to theorizing the IT artifact. *Information Systems Research, 12*(2), 121-134.

Paolacci, G., & Chandler, J. (2014). Inside the turk: Understanding mechanical turk as a participant pool. *Current Directions in Psychological Science, 23*(3), 184-188.

Paolacci, G., & Chandler, J. J. (2018). Direct replications in the era of open sampling.

Paolacci, G., Chandler, J., & Ipeirotis, P. G. (2010). Running experiments on amazon mechanical turk. *Judgment and Decision Making, 5*(5), 411-419.

Park, I., & Jung, H. (2015). Relationships among future time perspective, career and organizational commitment, occupational self-efficacy, and turnover intention. *Social Behavior and Personality: An International Journal, 43*(9), 1547-1561.

Parker, D. F., & DeCotiis, T. A. (1983). Organizational determinants of job stress. *Organizational Behavior and Human Performance, 32*(2), 160-177.

Pearce, J. L. (1981). Bringing some clarity to role ambiguity research. *Academy of Management Review, 6*(4), 665-674.

Peer, E., Vosgerau, J., & Acquisti, A. (2014). Reputation as a sufficient condition for data quality on amazon mechanical turk. *Behavior Research Methods, 46*(4), 1023-1031.

Peiró, J. M., González-Romá, V., Tordera, N., & Mañas, M. A. (2001). Does role stress predict burnout over time among health care professionals? *Psychology & Health, 16*(5), 511-525.

Petter, S., Straub, D. W., & Rai, A. (2007). Specifying formative constructs in information systems research.

Pines, A., & Kafry, D. (1981). Tedium in the life and work of professional women as compared with men. *Sex Roles, 7*(10), 963-977.

Podsakoff, N. P., LePine, J. A., & LePine, M. A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: A meta-analysis. *Journal of Applied Psychology, 92*(2), 438.

Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879.

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management, 12*(4), 531-544.

Price, J. L. (2001). Reflections on the determinants of voluntary turnover. *International Journal of Manpower, 22*(7), 600-624.

Quinton, S., & Wilson, D. (2016). Tensions and ties in social media networks: Towards a model of understanding business relationship development and business performance enhancement through the use of LinkedIn. *Industrial Marketing Management, 54*, 15-24.

Ragu-Nathan, T., Tarafdar, M., Ragu-Nathan, B. S., & Tu, Q. (2008). The consequences of technostress for end users in organizations: Conceptual development and empirical validation. *Information Systems Research, 19*(4), 417-433.

Rand, D. G. (2012). The promise of mechanical turk: How online labor markets can help theorists run behavioral experiments. *Journal of Theoretical Biology, 299*, 172-179.

Rangarajan, D., Jones, E., & Chin, W. (2005). Impact of sales force automation on technology-related stress, effort, and technology usage among salespeople. *Industrial Marketing Management, 34*(4), 345-354.

Rees, C. J., & Redfern, D. (2000). Recognising the perceived causes of stress–a training and development perspective. *Industrial and Commercial Training, 32*(4), 120-127.

Reilly, M. D. (1982). Working wives and convenience consumption. *Journal of Consumer Research, 8*(4), 407-418.

Reilly, M. D. (1982). Working wives and convenience consumption. *Journal of Consumer Research, 8*(4), 407-418.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology, 87*(4), 698.

Richardson, R. (1999). Selling and sales management in action: Measuring the impact of turnover on sales. *The Journal of Personal Selling & Sales Management, 19*(4), 53.

Ringle, C. M., Wende, S., & Becker, J. (2015). SmartPLS 3. *Boenningstedt: SmartPLS GmbH, Http://www.SmartPLS.Com*,

Roberts, J. A., Lapidus, R. S., & Chonko, L. B. (1997). Salespeople and stress: The moderating role of locus of control on work stressors and felt stress. *Journal of Marketing Theory and Practice, 5*(3), 93-108.

Robinson, J. P., & Milkie, M. A. (1998). Back to the basics: Trends in and role determinants of women's attitudes toward housework. *Journal of Marriage and the Family,* , 205-218.

Robbins, S., & Judge, T. A. (2007). Organizational behavior (12th ed.). *Upper Saddle River, New Jersey: Prentice-Hall.*

Rodriguez, M., Peterson, R. M., & Krishnan, V. (2012). Social media's influence on business-to-business sales performance. *Journal of Personal Selling & Sales Management, 32*(3), 365-378.

Sager, J. K. (1994). A structural model depicting salespeople's job stress. *Journal of the Academy of Marketing Science, 22*(1), 74-84.

Sarin, S., Sego, T., Kohli, A. K., & Challagalla, G. (2010). Characteristics that enhance training effectiveness in implementing technological change in sales strategy: A field-based exploratory study. *Journal of Personal Selling & Sales Management, 30*(2), 143-156.

Sarstedt, M., Henseler, J., & Ringle, C. M. (2011). Multigroup analysis in partial least squares (PLS) path modeling: Alternative methods and empirical results. *Measurement and research methods in international marketing* (pp. 195-218) Emerald Group Publishing Limited.

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 25*(3), 293-315.

Schaufeli, W. B., & Van Dierendonck, D. (1995). A cautionary note about the cross-national and clinical validity of cut-off points for the maslach burnout inventory. *Psychological Reports, 76*(3_suppl), 1083-1090.

Schultz, R. J., Schwepker Jr, C. H., & Good, D. J. (2012). Social media usage: An investigation of B2B salespeople. *American Journal of Business, 27*(2), 174-194.

Scott, D. M. (2009). *The new rules of marketing and PR: How to use social media, blogs, news releases, online video, and viral marketing to reach buyers directly* John Wiley & Sons.

Sekaran, U. (2003). Research methods for business, A skill building approach, john willey & sons. *Inc.New York,*

Selye, H. (1946). The general adaptation syndrome and the diseases of adaptation. *The Journal of Clinical Endocrinology, 6*(2), 117-230.

Selye, H. (1980). Stress and holistic medicine. *Family & Community Health, 3*(2), 85-88.

Shin, H., & Cho, Y. (2013). Relationship between job stress and turnover intention among nurses in university hospitals. *Journal of the Korea Academia-Industrial Cooperation Society, 14*(8), 3958-3970.

Singh, J. (1998). Striking a balance in boundary-spanning positions: An investigation of some unconventional influences of role stressors and job characteristics on job outcomes of salespeople. *Journal of Marketing, 62*(3), 69-86.

Singh, J. (2000). Performance productivity and quality of frontline employees in service organizations. *Journal of Marketing, 64*(2), 15-34.

Singh, J., Goolsby, J. R., & Rhoads, G. K. (1994). Behavioral and psychological consequences of boundary spanning burnout for customer service representatives. *Journal of Marketing Research, 31*(4), 558-569.

Smith, P. C. (1969). The measurement of satisfaction in work and retirement: A strategy for the study of attitudes.

Sondhi, N., Chawla, D., Jain, P., & Kashyap, M. (2008). Work-exhaustion-A consequential framework: Validating the model in the indian context. *Indian Journal of Industrial Relations,* , 547-573.

Sosik, J. J., Kahai, S. S., & Piovoso, M. J. (2009). Silver bullet or voodoo statistics? A primer for using the partial least squares data analytic technique in group and organization research. *Group & Organization Management, 34*(1), 5-36.

Sparks, K., Faragher, B., & Cooper, C. L. (2001). Well-being and occupational health in the 21st century workplace. *Journal of Occupational and Organizational Psychology, 74*(4), 489-509.

Sparks, K., Faragher, B., & Cooper, C. L. (2001). Well-being and occupational health in the 21st century workplace. *Journal of Occupational and Organizational Psychology, 74*(4), 489-509.

Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences* Sage publications.

Speier, C., & Venkatesh, V. (2002). The hidden minefields in the adoption of sales force automation technologies. *Journal of Marketing, 66*(3), 98-111.

Speier, C., & Venkatesh, V. (2002). The hidden minefields in the adoption of sales force automation technologies. *Journal of Marketing, 66*(3), 98-111.

Spreitzer, G. M., Kizilos, M. A., & Nason, S. W. (1997). A dimensional analysis of the relationship between psychological empowerment and effectiveness satisfaction, and strain. *Journal of Management, 23*(5), 679-704.

Stajkovic, A. D., & Luthans, F. (1998). Social cognitive theory and self-efficacy: Goin beyond traditional motivational and behavioral approaches. *Organizational Dynamics, 26*(4), 62-74.

Stajkovic, A. D., & Luthans, F. (1998). Social cognitive theory and self-efficacy: Goin beyond traditional motivational and behavioral approaches. *Organizational Dynamics, 26*(4), 62-74.

Stich, J., Tarafdar, M., Cooper, C. L., & Stacey, P. (2017). Workplace stress from actual and desired computer-mediated communication use: A multi-method study. *New Technology, Work and Employment, 32*(1), 84-100.

Straub, D. W. (1989). Validating instruments in MIS research. *MIS Quarterly,* , 147-169.

Straub, D., Boudreau, M., & Gefen, D. (2004). Validation guidelines for IS positivist research. *Communications of the Association for Information Systems, 13*(1), 24.

Sutherland, V. J., & Cooper, C. L. (1990). *Understanding stress: A psychological perspective for health professionals.* Chapman & Hall/CRC.

Tacy, J. W. (2016). Technostress: A concept analysis. *On-Line Journal of Nursing Informatics, 20*(2)

Tanner Jr, J. F., Dunn, M. G., & Chonko, L. B. (1993). Vertical exchange and salesperson stress. *Journal of Personal Selling & Sales Management, 13*(2), 27-36.

Tarafdar, M., Bolman Pullins, E., & Ragu-Nathan, T. (2014). Examining impacts of technostress on the professional salesperson's behavioural performance. *Journal of Personal Selling & Sales Management, 34*(1), 51-69.

Tarafdar, M., Gupta, A., & Turel, O. (2015). Special issue on'dark side of information technology use': An introduction and a framework for research. *Information Systems Journal, 25*(3), 161-170.

Tarafdar, M., Tu, Q., Ragu-Nathan, B. S., & Ragu-Nathan, T. (2007). The impact of technostress on role stress and productivity. *Journal of Management Information Systems, 24*(1), 301-328.

Tarafdar, M., Tu, Q., Ragu-Nathan, B. S., & Ragu-Nathan, T. (2007). The impact of technostress on role stress and productivity. *Journal of Management Information Systems, 24*(1), 301-328.

Tarafdar, M., Tu, Q., & Ragu-Nathan, T. (2010). Impact of technostress on end-user satisfaction and performance. *Journal of Management Information Systems, 27*(3), 303-334.

Tarafdar, M., Tu, Q., Ragu-Nathan, T., & Ragu-Nathan, B. S. (2011). Crossing to the dark side: Examining creators, outcomes, and inhibitors of technostress. *Communications of the ACM, 54*(9), 113-120.

Trainor, K. J. (2012). Relating social media technologies to performance: A capabilities-based perspective. *Journal of Personal Selling & Sales Management, 32*(3), 317-331.

Trainor, K. J., Andzulis, J. M., Rapp, A., & Agnihotri, R. (2014). Social media technology usage and customer relationship performance: A capabilities-based examination of social CRM. *Journal of Business Research, 67*(6), 1201-1208.

Urbach, N., & Ahlemann, F. (2010). Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and Application, 11*(2), 5-40.

Urbach, N., & Ahlemann, F. (2010). Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and Application, 11*(2), 5-40.

Van der Heijden, H. (2004). User acceptance of hedonic information systems. *MIS Quarterly,* , 695-704.

Veloutsou, C. A., & Panigyrakis, G. G. (2004). Consumer brand managers' job stress, job satisfaction, perceived performance and intention to leave. *Journal of Marketing Management, 20*(1-2), 105-131.

Venkatesh, V., & Brown, S. A. (2001). A longitudinal investigation of personal computers in homes: Adoption determinants and emerging challenges. *MIS Quarterly,* , 71-102.

Venkatesh, V., & Brown, S. A. (2001). A longitudinal investigation of personal computers in homes: Adoption determinants and emerging challenges. *MIS Quarterly,* , 71-102.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly,* , 425-478.

Walker Jr, O. C., Churchill Jr, G. A., & Ford, N. M. (1977). Motivation and performance in industrial selling: Present knowledge and needed research. *Journal of Marketing Research, 14*(2), 156-168.

Weil, M. M., & Rosen, L. D. (1997). *Technostress: Coping with technology@ work@ home@ play* Wiley New York.

Werts, C. E., Linn, R. L., & Jöreskog, K. G. (1974). Intraclass reliability estimates: Testing structural assumptions. *Educational and Psychological Measurement, 34*(1), 25-33.

Wetzels, M., Odekerken-Schröder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS Quarterly,* , 177-195.

Wetzels, M., Odekerken-Schröder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS Quarterly,* , 177-195.

Wiersema, F. (2013). The B2B Agenda: The current state of B2B marketing and a look ahead. *Industrial Marketing Management, 42(4), 470-488.*

Wold, H. (1982). Soft modeling: The basic design and some extensions. *Systems Under Indirect Observation, 2*, 343.

Wolpin, J., Burke, R. J., & Greenglass, E. R. (1991). Is job satisfaction an antecedent or a consequence of psychological burnout? *Human Relations, 44*(2), 193-209.

Yan, Z., Guo, X., Lee, M. K., & Vogel, D. R. (2013). A conceptual model of technology features and technostress in telemedicine communication. *Information Technology & People, 26*(3), 283-297.

Yin, P., Davison, R. M., Bian, Y., Wu, J., & Liang, L. (2014). The sources and consequences of mobile technostress in the workplace. Paper presented at the *Pacis,* 144.