MFLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

INVESTIGATING THE ROLE OF DISPOSITIONAL AND SITUATIONAL

FACTORS IN ASSESSMENT OF USER RESPONSE TO NEW IT – A COPING

THEORY PERSPECTIVE OF USER ADAPTATION FROM IT IMPLEMENTATION

TO JOB OUTCOMES

A dissertation submitted in partial fulfillment of

the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

BUSINESS ADMINISTRATION

by

Amin Shoja

2021

To: Interim Dean William G. Hardin
      College of Business

This dissertation, written by Amin Shoja, and entitled Investigating the Role of Dispositional and Situational Factors in Assessment of User Response to New IT – A Coping Theory Perspective of User Adaptation from IT Implementation to Job Outcomes, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Date of Defense: June 25, 2021

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Florida International University, 2021

DEDICATION

ACKNOWLEDGMENTS

ABSTRACT OF THE DISSERTATION

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This proposal focuses on how implementing a new Information Technology (IT) is
disturbing employees' work environments. The critical element regarding these changes
is the impact of ICT implementation on employees' stress that could lead to different
adaptation performance and coping responses. This study investigates such foundations
to provide insights that would facilitate academic research understanding of user
adaptation of IT and enables managers to recognize how organizations can harvest higher
value from IT investment and its success. New IT-related disturbing events remain a
significant challenge for organizations as individuals could perceive what is at stake for
them as an opportunity or a threat; further they assess what are the resources available
while engaging in these situations. It is essential to study the contextual and dispositional

factors which affect specific adaptation behaviors that individuals undertake to cope with an IT and the antecedents and consequences of these behaviors.

This study investigates the extent to which environmental and contextual factors contribute to coping appraisals, particularly assessing the effect of IT implementation characteristics on the primary and secondary appraisals. Further, this investigation sheds light on how individuals' dispositions, specifically personality traits, play a role in influencing the relationship among contextual indicators of an IT stimulus event to interact with the users' primary appraisal as an opportunity or a threat and secondary appraisal (control over the consequences) towards the introduction of a new technology. By utilizing the coping model of user adaptation, we develop a theory to explain users' IT adaptation behaviors as a coping process by individuals and their choices of coping strategies, that could affect their job outcomes. Drawing from early work on the Transactional Model of Stress and Coping by R. S. Lazarus and S. Folkman (1984) and the Coping Model of User Adaptation by Beaudry and Pinsonneault (2005), this study makes multiple theoretical contributions and has insightful implications for practice.

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INTRODUCTION

Problem Statement

Organizations are continually trying to acquire and develop new information and communication technologies (ICTs) to support the business. Worldwide, it is projected that organizations devote $4.3 trillion to ICTs in 2020 alone, a 3.6% increase compared to 2019 (International Data Corporation, 2020). Such technologies make it possible to constantly stay connected, independent of geographic locations, and transfer information on a real-time basis. The literature evidence that organizations can gain strategic and business benefits through investment in information technologies (ITs) (Mithas, Tafti, Bardhan, & Goh, 2012; Rai, Patnayakuni, & Seth, 2006). However, employee adaptation and use behavioral manifestation constitutes a significant challenge concerning organizational new IT implementation, and IT use patterns (Beaudry & Pinsonneault, 2005; Beaudry, Vaghefi, Bagayogo, & Lapointe, 2020; Boudreau & Robey, 2005).

To make decisions regarding any potential project or IT investments, we consider productivity and profitability as significant economic indicators of such IT investment's contribution. In general, ICT investment provides digital coordination, communication, and information processing capabilities to support organizations and employees' decisions. As a result, most modern industries are significantly affected by these technologies to reduce the cost of such processes by investment and implementation of new ITs (Brynjolfsson & Hitt, 2000; Melville, Kraemer, & Gurbaxani, 2004).

However, as Ayyagari, Grover, and Purvis (2011) discuss, the costs of implementing new ICTs are not always apparent in financial investments; instead, we should consider the

stress and demand caused by ICTs for employees. In this regard, the critical element is the impact of ICT implementation on employees' stress, leading to unintended consequences and shaping the use patterns, possibly deviating the organization's intent.

Employees and managers are accustomed to the expected or unexpected negative and positive effects of new ITs, which could harm them or bring new opportunities. Such changes could lead to different adaptation performance and coping responses. These effects have been a critical line of research in the IS literature to address the black box of system usage (Bala & Venkatesh, 2016; Beaudry & Pinsonneault, 2010; Elie-Dit-Cosaque & Straub, 2011). In this sense, when individuals face disruptive IT events, which could be stressful or challenging situations, they perceive what is at stake for them. Further, they assess what are the resources available while engaging in these situations. Eventually, based on the cognitive and behavioral efforts performed by individuals, we could have a better understanding of how specific IT use patterns develop (Beaudry & Pinsonneault, 2005; Liang & Xue, 2009; Salo, Mykkänen, & Hekkala, 2020; Stein, Newell, Wagner, & Galliers, 2015). The goal of this study is to explore this phenomenon by examining the role of dispositional and situational factors of user adaptation concerning new IT implementation.

The notion of IT-indued stress explores how and why IT events cause stress and put demands on individuals. Individuals might find themselves unable to meet these demands, imposed by new work arrangements fashioned by ICTs (Day, Paquet, Scott, & Hambley, 2012; Weber, 2004). As such, it is critical to identify IT implementation characteristics' role in understanding employees' behavioral, appraisal, and cognitive

responses (Bala & Venkatesh, 2016). These characteristics constitute the affective cues that shape and structure the change event (Bala & Venkatesh, 2016; Beaudry & Pinsonneault, 2005; R. S. Lazarus & S. Folkman, 1984). The investigation of ICT implementation characteristics, particularly organization-wide systems and related IT coping strategies, is of scientific significance because it enriches our current understanding of the black box of system usage (Burton-Jones & Straub Jr, 2006; Elie-Dit-Cosaque & Straub, 2011). While this study does not focus on an exhaustive list of potential factors, we attempt to investigate the importance of IT implementation's contextual characteristics on the appraisals. This study is a step towards opening this black box by putting forward the distinct antecedents, consequences, and processes stemming from the IT implementation characteristics, personality traits and dispositional factors, and coping model of user adaptation.

In this sense, we identify the moderating influence of individuals' dispositions, such as personality traits, on cognitive and behavioral efforts performed by users to cope with new IT incidents. Accordingly, this study theorizes and develops mechanisms concerning the influence of the big five personality traits, including openness, conscientiousness, agreeableness, extraversion, and neuroticism (McCrae & Costa, 1987) on reactivity to stressful experiences created by IT. Such efforts performed by employees to respond to stressful or challenging situations caused by IT implementation are defined as technology adaptation (Beaudry & Pinsonneault, 2005; Stein et al., 2015). On one hand, we want to understand how coping appraisals are determined by environmental factors such as IT implementation characteristics. On the other hand, we investigate how personality traits and dispositional factors influence the relationship between coping appraisal and

situation-specific factors. Further, how these contribute to the user adaptation processes would institute coping strategies and the IT use outcomes. By analyzing these inquiries, this study provides a more informed way of conceptualizing the coping model of user adaptation, which influences the selection or preference of coping strategies and job outcomes.

<div align="center">Significance of the Problem</div>

It is significant to investigate how IT implementation disrupts employees' work environment to shed more light on puzzling findings in the literature in the way IT events would impact employees' job outcomes and a firm's performance. Such insight would facilitate academic research understanding of user adaptation of technology and enables managers to comprehend how organizations can harvest higher value from IT investment and its success. Although the measurement of such IT success or effectiveness is at the center of IS management and investment (Delone & McLean, 2003); employees' IT adaptation behaviors and coping mechanisms to these new IT events that create technology stress and coping behavior remain a significant issue for organizations. The prior research provides rich insights on individuals' IT use, adaptation process, and strategies; yet, there is a limited understanding of specific adaptation appraisals and behaviors that individuals undertake to cope with an IT and the antecedents and consequences of these behaviors. There is a need to progress toward a framework that integrates both approaches and allows studying the antecedents, behaviors, and outcomes of user adoption together.

Research Gap

Active use of information communication technologies is an essential part of the modern organizational work setting. Across different industries, employees must engage with ICTs to accomplish their tasks effectively. Consequently, organizations welcome new technologies and see them as more advanced tools to facilitate change and increase efficiency, effectiveness, and growth (Jasperson, Carter, & Zmud, 2005). However, as organizations establish a high investment in new ITs and hope for better job outcomes, we should be mindful of the potential harm or threat that such technologies could cause (Ayyagari et al., 2011). In this case, individuals faced with the demand caused by IT use would be forced to adapt or deal with those demands (Beaudry & Pinsonneault, 2005; Stein et al., 2015). Beaudry and Pinsonneault's Coping Model of User Adaptation (CMUA) provides significant insights into different properties of the user adaptation process. They define adaptation as cognitive efforts and a set of acts that users perform to cope with IT events' perceived consequences. The notion of the user adaptation process is an attempt to conceptualize a complex and multifaceted research area in the IS discipline; IT acceptance and usage behavior.

This study argues that the current state of the theoretical and empirical research on IT adaptation calls for a deeper understanding of the interplay between contextual and dispositional factors that enables us to conceptualize a wide range of user responses. User coping mechanism and adaptation strategies focus on the mediation process among IT usage behaviors and their contextual and dispositional antecedents (Benbasat & Barki, 2007). The present study speaks to this matter by conceptualizing the user adaptation

process to enrich the literature on user response to information technology, a relatively unexplored research territory that IS scholars refer to it as a black box (Benbasat & Barki, 2007; Burton-Jones & Straub Jr, 2006; Elie-Dit-Cosaque & Straub, 2011). It is crucial to study user adaptation to shed light on user interaction with disruptive IT events. Notably, due to the fact that very few IS theories have attempted to investigate the user adaptation process we can recognize a major gap in the literature. For example, Elie-Dit-Cosaque and Straub (2011) argue that there is a virtually unstudied black box between usage behaviors and their most salient mentioned antecedents within the main body of the IS literature.

As shown in Figure 1 below, despite the valuable contributions that the main streams of research have made to explain this complex phenomenon, it is necessary to dive deeper to enlighten the user adaptation as a mediation mechanism. This research body, mainly theorizes the antecedents of IT adoption and use behaviors; yet, it indicates a notable gap in the literature that leaves the academic field with some blind areas. For instance, DeLone and McLean (1992)'s original information success model and its revised form (Delone & McLean, 2003) include system quality, information quality, and service quality as main antecedents of intention to use and use. The technology acceptance model generated a considerable interest regarding beliefs such as perceived usefulness and perceived ease of use as important antecedents of intention to use and use of IT (Davis, 1989). Further, the Unified Theory of Acceptance and Use of Technology (UTAUT) formulates perception of performance expectancy, the effort required, and social influences as core determinants of IT acceptance and usage (Venkatesh, Morris, Davis, & Davis, 2003). Finally, the Task Technology Fit (TTF) proposes the critical concept of

how good a fit an information technology must be with the task that it supports to increase its utilization and impact performance (Goodhue & Thompson, 1995).

Figure 1 The Black Box of User Strategies of Adaptation
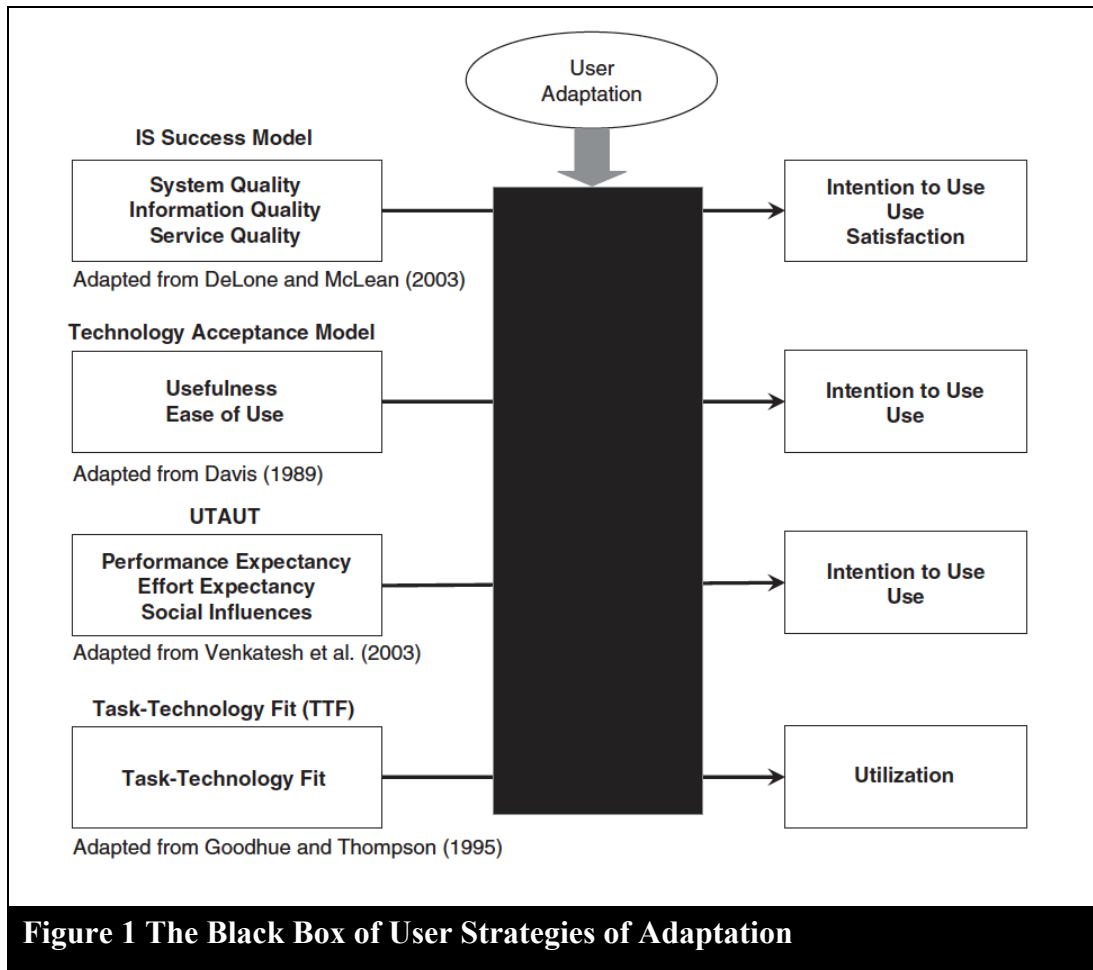
Source: Elie-Dit-Cosaque and Straub (2011)

This research stream, which has been refined and advanced through multiple iterations, provides substantial knowledge and insight into the factors influencing IT acceptance and use. Beyond any doubt, this body of literature depicts a framework that demonstrates such factors, as discussed above, affect IS usage and its utility. Nevertheless, there is a need to conceptualize and investigate the integration of antecedents, user behaviors, and user adaptation outcomes as a holistic network (Beaudry & Pinsonneault, 2005). The

CMUA posits users' IT adaptation behaviors and their coping efforts as the core linkage

between IT events and use or performance outcomes while offering a groundbreaking

theory. Building on this theory, the present study speaks to this notion by investigating

the cognitive and behavioral efforts performed by employees in organizational settings to

explain how and why individuals accept and use IT.

It is crucial to identify the key components that explain the mutual association among

them. It will facilitate the understanding and advancement of the transactional theory of

coping. Thus, drawing from early work on the Transactional Model of Stress and Coping

by R. S. Lazarus and S. Folkman (1984), we investigate disruptive IT events' adaptation

reaction. In this theoretical lens, adaptation depends on evaluative thoughts such as

appraisals and coping (R. S. Lazarus, 1993). The theory strongly emphasizes how

individuals appraise and go through coping processes with stressful events derived from

the environment's variables interplaying with a person's dispositions. This focus enables

us to investigate disruptive IT events' potential triggers at early implementation stages

interacting with individuals' dispositions like personality traits. Then, assess the coping

mechanism and strategies as the mediation process. Finally, connect user's coping efforts

to IT use and acceptance and their job outcomes in the organizational setting. Table 1

summarizes the definitions of the main concepts within this framework, which are

essential to our study.

Table 1. Definitions of the Main Concepts		
Concept	Definition	Source
IT stimulus Event	A stimulus is defined as something or some IT event that a person responds to or reacts to. It is a psychological concept or representation that can be real, imagined, fictitious, remembered, in the future or anticipated, or in other virtual reality forms.	(P. Zhang, 2013)

Affective Cues of the IT Stimulus Event	Affective cues are specific features or characteristics which are stimulus' properties that can manifest the affective quality of the stimulus. They are regarded as environmental cues or signals of IT with affective information.	(P. Zhang, 2013)
Coping	The overall actions or set of a person's cognitive and behavioral efforts are used by the mind (or body) to deal with stressful, demanding situations.	(Folkman & Lazarus, 1980)
Coping Strategy	Coping strategies are made in response to stress appraisal—a specific way of actualizing a coping attempt in practice.	(Folkman & Lazarus, 1980; Salo et al., 2020)
Problem Focused Coping	Management or alteration of the person-environment relationship that is the source of stress; if problem-focused coping actions change a person's relationship with the environment, it may also change the psychological stress for the better.	(Folkman & Lazarus, 1980; R. S. Lazarus, 1993)
Emotion Focused Coping	The regulation of stressful emotions; emotion-focused is coping processes that only change the way we attend to or interpret what is happening to reduce negative feelings and stress.	(Folkman & Lazarus, 1980; R. S. Lazarus, 1993)
Appraisal	An appraisal is a cognitive process, that evaluates thoughts about the event or the process that mediates what the encounter implies for personal well-being, and if so, in what ways.	(Folkman & Lazarus, 1980; R. S. Lazarus, 1993)
Primary Appraisal	Person's subjective (implicit or explicit) evaluation about the stimulus event and the potential personal importance and relevance. "What is at stake for me in this situation?"	(Beaudry & Pinsonneault, 2005; Folkman & Lazarus, 1980)
Secondary Appraisal	Person's evaluating the coping options available to them to determine the level of control they exert over the situation consequences; and what they feel they can do about it given the coping resources available to them. "what can I do?"	(Beaudry & Pinsonneault, 2005; Folkman & Lazarus, 1980)
Threat Appraisal	A threat appraisal is the anticipation of harm or loss that has not taken place but may be imminent.	(Folkman & Lazarus, 1980; R. S. Lazarus, 1993)
Opportunity Appraisal	Opportunity appraisal refers to an anticipated opening for mastery or gain. It is challenging stress which refers to the potential for growth and positive outcome. It results from difficult demands that we feel confident about overcoming by effectively mobilizing and deploying our coping resources.	(Folkman & Lazarus, 1980; R. S. Lazarus, 1993)

Since the transactional model of stress, IS researchers proposed different genres of

research aimed to explain and clarify user adaptation and coping towards patterns of IT

innovations use (Bala & Venkatesh, 2016; Beaudry & Pinsonneault, 2005, 2010; Salo et al., 2020; Stein et al., 2015). These studies advanced our understanding of coping efforts and how individuals master, tolerate or reduce external and internal demands related to IT incidents (Beaudry & Pinsonneault, 2010). This conceptualization regarding the coping process would serve multiple main functions: (i) starts with a specific IT stimulus incident that a person reacts to and leads to a cognitive, emotional, and behavioral response; (ii) helps considering different affective antecedents or cues of the IT stimulus event from the environmental context, (iii) evaluates individuals' concerns regarding what is at stake (primary appraisal) and what resources and options are available to cope (secondary appraisal), (ix) includes problem-focused-, and emotion-focused coping strategies, and (x) recognizes IT acceptance, use patterns, and related job outcomes. Figure 2 shows a high-level illustration of the coping model of user adaptation and identified gaps related to the main aspects of the coping process.

Figure 2 High Level Illustration of CMUA and Identified Gaps
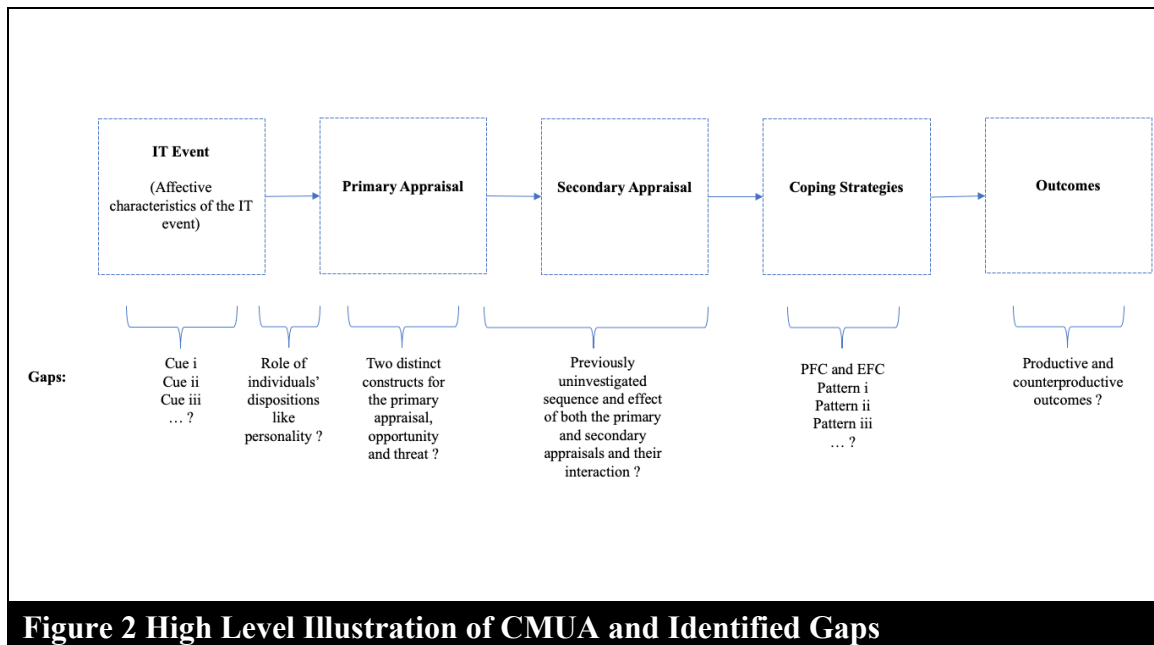
Research Questions

This study aims to answer four research questions regarding the coping model of user behavior towards disruptive IT events.

1. To what extent are environmental and contextual factors contributing to coping appraisals, particularly assessing the effect of IT implementation characteristics on the primary and secondary appraisals?

2. Do individuals' dispositions like personality traits play a significant role in influencing the relationship among contextual indicators of an IT stimulus event to interact with the users' primary appraisal as an opportunity or a threat and secondary appraisal (control over the consequences) towards the introduction of new technology?

3. How can we explain users' IT behaviors towards IT as a coping process by individuals and their choice of coping strategies?

4. How can we gain predictive power on users' productive/ counterproductive behavior related to new technology at its early stages during implementation that can explain employees' job outcomes?

Research Contributions

Through answering these research questions, this study makes multiple theoretical contributions and has insightful implications for practice. Theoretically, our contribution to the IT implementation literature is fourfold. We provide a more in-depth explanation for the mediation effect of user adaptation and coping as a theoretical lens to connect IT stimulus events characteristics with job outcomes. Further, we contribute to IT adaptation

behavior by expanding our knowledge of different IT implementation's affective characteristics and their effect on primary and secondary appraisals. Third, our study theorizes and develops mechanisms concerning the influence of personality traits, including openness, conscientiousness, agreeableness, extraversion, and neuroticism, on the effects of IT stimulus cues on the opportunity and threat appraisal. Finally, we expand the IT coping process's conceptualization that includes appraisal, IT adaptation behaviors (PFC and EFC coping strategies), and job outcomes. These contributions expand the conceptualization of the IT adaptation process and provide a better understanding of user IT usage behavior.

Turning into the study's practical implications, we address the productive and counterproductive coping behavior and individuals' job outcomes in response to IT stimulus events. In terms of different situational factors that could create disruptive IT incidents, this study's findings would provide valuable insight into preventing counterproductive job outcomes through appraisal evaluation. Depend on a person's primary appraisal of a new ICT as an opportunity or threat and control over the consequences, they would have a different approach towards the changes. An organization that does not mindfully consider IT stimulus characteristics is more likely to observe deviation from intended ICT goals among their employees. There is no doubt that with high investment in new ITs, employee job outcomes and IT-enabled positive consequences are at the center of the organization's leadership. IS managers can use this study's findings to make more informed decisions regarding the integrated role of personality traits and organizational contextual factors contributing to outcomes of new

ICT implementation. Our model incorporates IT stimulus cues and user adaptation to provide a deeper understanding and link user behavior to job outcomes.

The rest of this proposal is organized as follows: the next section discusses the theoretical background by providing an overview of the transactional model of stress and coping and the coping model of user adaptation. We then present the research design, the conceptual framework, and the hypotheses. After that, we discuss the population of interest, participants and data collection, measurement operationalization, and primary analysis methods in the methodology section.

BACKGROUND LITERATURE REVIEW AND THEORY

This study attempts to address users' IT adaptation and behaviors towards implementation of new IT. To investigate individuals' IT usage behavior and adaptation as a coping process and persons' choice of coping strategies; we determine the degree to which certain IT contextual conditions and person specific traits are significantly shaping the cognitive and behavioral efforts a person makes to deal with the demand caused by the IT event. This study adds to the body of literature in such a way to gain higher understanding and predictive power of users' behavior toward new ITs. To do so, we pay attention to individual differences and person specific dispositions (personality traits) in addition to environmental and contextual conditions (IT implementation characteristics). The importance of person environment relationship and interacting variables of person and environment has been emphasized by the literature (Folkman & Lazarus, 1980; R. S. Lazarus & S. Folkman, 1984). Transactional model of stress and coping is the foundation of the theoretical framework that conceptualizes the transactional notion of individuals'

adaptation and coping towards work-related stress management. This theory is enabling

us to conceptualize the variations in the ways different individuals appraise and cope to

adaptational transactions with their environmental conditions that provides helpful insight

regarding conditions that could mitigate or exacerbate stress effects (R. S. Lazarus,

1995).

In this study, we investigate why individuals appraise a situation as threat /opportunity

and what they could do to manage such conditions. Drawing on theory of adaptation, we

utilize the transactional model of stress and coping (TMSC) (R. S. Lazarus & S.

Folkman, 1984) and the coping model of user adaptation (CMUA) (Beaudry &

Pinsonneault, 2005). This study attempts to address adaptation and coping process by

users' primary and secondary appraisals and persons' assessment of his/her resources to

response to the situation. We choose this lens to enrich our understanding and better

theorize the adaptation of user behaviors and the ways individuals appraise adaptational

transactions of IT events.

Overview of Transactional Model of Stress and Coping

Transactional model of stress and coping is a theory of psychological work-related stress

and coping which emphasizes on the transactional nature of this notion. The transaction

of stress underlines that stress is neither entirely in the person nor solely in the external

factors, but it is in the transaction between person and environment variables (R. S.

Lazarus & S. Folkman, 1984). Lazarus argues that we need to develop a theory driven-

approach with a series of measures, that each of which depicts critical personal or

environmental aspects of the stress (R. Lazarus, 1990). This notion implies that stress

reflects the conjunction of a personal agenda and goals with environmental characteristics that pose threat or challenge, depends on each person's situation (R. Lazarus, 1990). The importance of this theory lays on identifying transactions as two processes; cognitive appraisal and coping (R. S. Lazarus & S. Folkman, 1984). The power of transactional theory comes from the fact that it posits appraisal and coping processes as crucial mediators of person-environment relations and their outcomes (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986).

Appraisal is a cognitive process that evaluates thoughts about a particular encounter with the environment and persons' well-being. Cognitive appraisal is the process that mediates between, on one hand, the demands, constraints, and resources of the environment and, on the other hand, the goal hierarchy and personal beliefs of the individual in relation to themselves (Folkman & Lazarus, 1980; R. S. Lazarus, 1993). For the situation to be stressful, one must believe that the incident is relevant to his or her goals of importance; means that there must be some stake in the outcome (R. Lazarus, 1995). In addition, stress happens when a person evaluates or appraises that the demands posed by the event would tax or exceed his or her resources.

There are two types of appraisals. The primary appraisal concerns whether there is anything at stake for the person and what are the potential consequences. This judgement links the person to the environmental cues to offer a causal pathway and explain the significance of the event. In this process the individual evaluates the encounter in terms of its personal meaning to himself or herself (R. Lazarus, 1999). The transactional model of stress and coping provides definitions for three types of primary appraisals of harm,

threat, or challenge (R. Lazarus, 1990). It identifies harm or loss as some negative outcome that has already happened and it is irreversible. Threat emphasizes on the possibility of harm that is imminent and protecting against harm. Finally, for the challenge appraisal the focus is on anticipated positive outcomes or mastery. Expanding this framework, Lazarus later added benefit appraisal that defines a person's search for a benefit or gain in a demanding encounter. These cognitive appraisals are playing a critical mediating role for coping process to feel engaged and enthused or on the other hand endangered or self-protective (R. Lazarus, 1990, 1995).

Faced with a disruptive event, it is the secondary appraisal that addresses the available coping options and what a person can do about it. The secondary appraisal focuses on the availability of the resources and what can be done dealing with harm, threat, challenge, or benefit (R. Lazarus, 1999; R. S. Lazarus & S. Folkman, 1984). Secondary appraisal makes it possible to construct a rational meaning of control over the consequences based on the personal and social restrictions in contradiction of particular forms of coping. This appraisal has a critical role to recognize available coping options and to change such conditions perceived during the primary appraisal. This coping options could refer to attempting to alter the perceived harm and threat, or on the other hand, improving the gain from challenge and benefit appraisals. The transactional model represents coping as a choice that is converged by the primary and secondary appraisals.

Coping responses are efforts to manage a disruptive event and the appraisals that signal harm, threat, challenge, or benefit. Lazarus defines coping as "constantly changing cognitive and behavioral efforts a person makes to manage specific external or internal

demands that are appraised as taxing or exceeding the resources of the person" (R. Lazarus, 1999, p. 110). To manage external or internal demands that are appraised threat or challenge, a person is concerned with adaptational encounter influenced by contextual and personality factors (Smith & Lazarus, 1990). This theory identifies two important types of coping, emotion-focused coping and problem-focused coping. In the emotion-focused coping the focus is on efforts that regulate the emotional distress; while, the problem-focused coping focuses on managing the encounter and the efforts that can alter the actual environment-person relationship (R. S. Lazarus & S. Folkman, 1984).

These two fundamental ways of coping have distinctive implications for adaptational process. For instance, problem-focused coping managing or altering the source of stress or problem. Cognitive or behavioral strategies such as seeking information or analyzing the encounter and strategies involving actions are more focused to make the situation better and eliminate or reduce the threat. Though, the emotion-focused coping include strategies such as avoidance or distancing and changing the meaning of what is happening to prevent negative thoughts about the source of stress. This could be a way to regulate the emotional distress and does not make any objective change in the environment-person relationship (R. S. Lazarus, 1995). There is no doubt that the approach to coping is contextual and each of problem- and emotion-focused coping strategies are capable of helping the person to manage and master the encounter. The transactional model of stress and coping conceptualizes such consideration and effort for these coping strategies depend on the appraisal evaluation of the environment-person transaction (Folkman, 1982).

Overview of Coping Model of User Adaptation

Recent IS literature emphasizes the importance of how IT implementation disturbs employees' work environment and points out the need to gain a greater understanding of IT-related adaptation behaviors (Beaudry & Pinsonneault, 2001, 2005; Benbasat & Barki, 2007; Boudreau & Robey, 2005; Burton-Jones & Straub Jr, 2006). The coping model of user adaptation utilizes coping theory in individual psychology to provide new insights on users' adaptation as a meditation mechanism between implementing new IT and users' behaviors. This theory defines adaptation as cognitive and behavioral efforts made by employees to manage disruptive IT events that occur in their organizations (Beaudry & Pinsonneault, 2005). While disruptive IT event could be perceived as positive or negative, this theory suggests we can analyze individuals' different appraisals, adaptation strategies, and behaviors through the lens of coping theory. The central concept is to shed more light on this phenomenon by conceptualizing the relationship between an individual's appraisals of a new IT and his or her coping effort. On the other hand, it investigates adaptation behaviors that could determine employees' IT use and performance. This lens claims that such a point of view can explain IT integration in different organizational contexts, which is associated with employee performance and job outcomes (Bala & Venkatesh, 2016; Beaudry & Pinsonneault, 2001).

Introducing the coping model of user adaptation, Beaudry and Pinsonneault (2005) focus on the fact that the way users respond to change or disruptive IT events is very similar to the notion of coping. Therefore, they reconcile the adaptation efforts done by users as cognitive and behavioral responses that start with assessing an IT event and evaluating

the primary and secondary appraisals as described by the transactional model of stress

and coping. This theory states that user appraisal is triggered by persons' awareness of an

IT event, which could have significant consequences at the individual or professional

level. The primary and secondary appraisals are representing one's evaluation of such

consequences. Table 2 provides definitions for different aspects of the cognitive

appraisals related to an IT stimulus event. In this context, the primary appraisal is

conceptualized as a perceived opportunity and perceived threat. The secondary appraisal

is referring to perceived controllability and resources to deal with the new IT.

Table 2. Definitions of the Cognitive Appraisals in IS Context		
Concept	**Definition**	**Source**
Primary Appraisal	The primary appraisal refers to the evaluation that the user determines the expected consequences of the IT event and how they are likely to affect him/her both personally and professionally.	(Beaudry & Pinsonneault, 2005; R. Lazarus & S. Folkman, 1984)
Perceived Opportunity	Assessment of the degree to which an employee believes that an IT implementation offers them a chance for success in the work place.	(Bala & Venkatesh, 2016)
Perceived Threat	Assessment of the degree to which an employee believes that an IT implementation harms their well-being, personal gain, or growth.	(Bala & Venkatesh, 2016)
Secondary Appraisal	The secondary appraisal refers to the users' assessment of how much control they have over the IT event and what their adaptation options are given the resources available to them.	(Beaudry & Pinsonneault, 2005; R. Lazarus & S. Folkman, 1984)
Perceived Controllability	Assessment of the degree to which an employee believes that he or she has the ability and resources to deal with the new IT event.	(Bala & Venkatesh, 2016)

As shown in Figure 3, user adaptation's coping model is blind to what effective cues

contribute to shaping appraisal evaluations. Nevertheless, it assumes that primary

appraisal is influenced by some social and institutional context (Beaudry & Pinsonneault,

2005). The primary appraisal is assumed to be where a person evaluates whether they

have anything at stake. This model assumes that IT event is solely either an opportunity

or a threat; however, this assumption of pure forms of appraisal has been revised by other

scholars (Bala & Venkatesh, 2016). At the same time, the secondary appraisal evaluates

users' perception of control and controllability of IT event or adaptation options given

one's available resources.
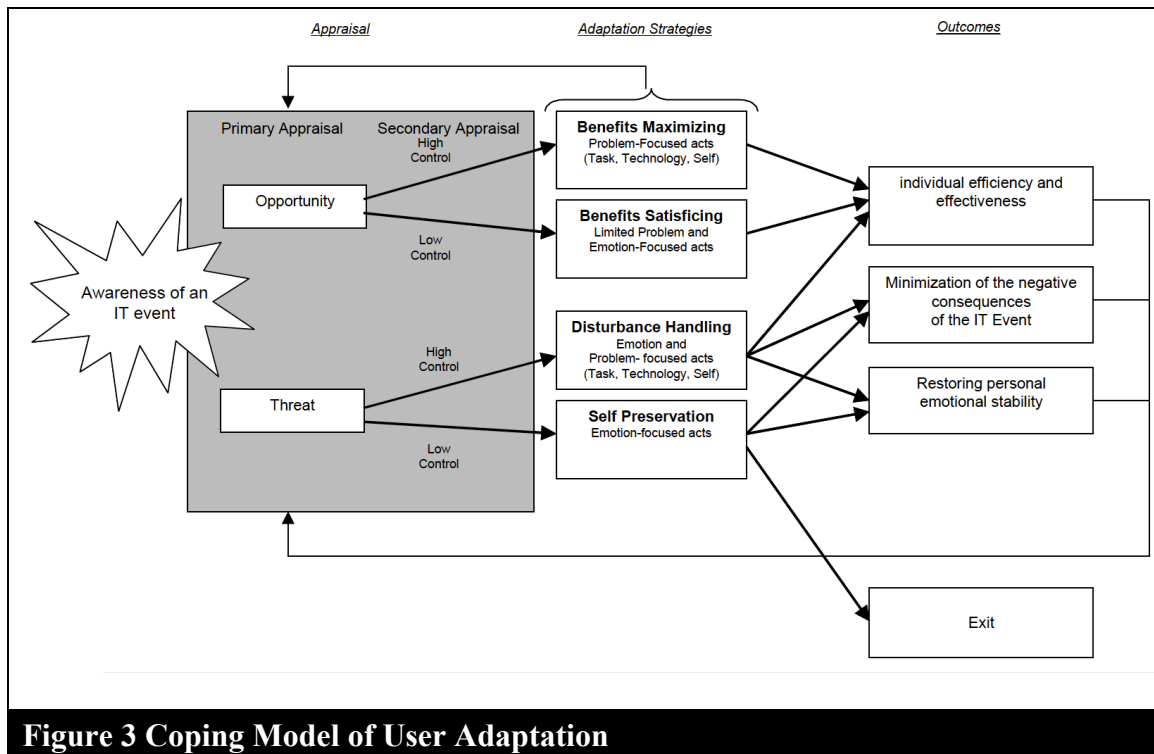
Figure 3 Coping Model of User Adaptation

Source: (Beaudry & Pinsonneault, 2005)

This model defines technology adaptation strategies as specific behaviors that individuals

perform to cope with new IT events. It presents four distinct adaptation strategies

combining primary and secondary appraisals (opportunity vs. threat, and high vs. low

control). These strategies include benefit maximizing, benefits satisfying, disturbance

handling, and self-preservation. The coping model of user adaptation conceptually

develops a framework that connects employees' adaptation strategies to individual and professional outcomes.

The coping model of user adaptation provides a theoretical lens to conceptualize and study user adaptation's mediation mechanism to enrich the literature on user behavior towards new IT. As we mentioned before, this phenomenon has been relatively neglected. Prior theories did not offer any in-depth deliberation to help develop our understanding of IT-related user coping adaptation. This theory provides substantial explanatory power and helps us better comprehend how IT implementation disrupts employees' work environment. The present study speaks to this matter by investigating the user adaptation process to expand our understanding of user response to IT-induced changes, a relatively unexplored research territory that IS scholars refer to it as a black box (Benbasat & Barki, 2007; Burton-Jones & Straub Jr, 2006; Elie-Dit-Cosaque & Straub, 2011). Although the coping theory offers a robust framework to conceptualize the phenomenon at hand, it is blind to individual and contextual factors that shape individuals' adaptation process. As it is profoundly emphasized by the transactional model of stress and coping, we should investigate the interplay between environmental variables and person dispositional factors to conceptualize a broader set of user adaptational responses. Therefore, we discuss the current state of the literature on IT implementation characteristics and personality traits in the next two parts.

Situational Factors Affecting Appraisals – IT Implementation Characteristics

The coping theories state that employees' evaluation of IT events starts with awareness of IT-induced organizational changes; therefore, it is critical to consider and analyze

affective cues elicited by contextual and situational factors (Beaudry & Pinsonneault, 2005). Although Beaudry and Pinsonneault's (2005) study did not include any situational factors in their research to simplify the process, there is no doubt that we ought to unpack IT stimulus events into implementation characteristics to understand employees' coping responses better. These theories suggest that employees will leverage situational and context-specific resources or they could feel discouraged by the lack of resources or by sanctions when they appraise IT-related changes in their organizations. Consistent with the coping theories in IS literature, we identify five different types of IT implementation characteristics as situational factors in our conceptual model. User involvement, management support, transparency of use, transparency of information, and training effectiveness.

Table 3. Situational Factors Affecting Cognitive Appraisals		
Concept	**Definition**	**Source**
User Involvement	User involvement is a subjective psychological state, defined as the importance and personal relevance of a new event to an employee.	(Barki & Hartwick, 1994)
Management Support	Management support is defined as the degree to which one believes that there is a commitment for a successful IT implementation of a new IT by the organization's management.	(Bala & Venkatesh, 2016; Sharma & Yetton, 2003)
Training Effectiveness	Training effectiveness refers to the degree to which an employee finds the training provided during the implementation to be adequate to work with the new IT.	(Aiman-Smith & Green, 2002; Bala & Venkatesh, 2016).
Transparency of Information (Awareness)	Transparency of information is the degree to which one believes that he or she is familiarized with the existence of the change and is provided information on how the change functions and what the benefits of the change are through various forms of announcements.	Current study & (Bélanger, Collignon, Enget, & Negangard, 2017)
Transparency of Use	Transparency of use is the extent to which an employee can see how the other users (at least a group of other users) are utilizing the IT and what they are accomplishing with that.	(Falahati & Lapointe, 2020)

Table 3 above provides the definition and description of these situational factors affecting appraisals. In the IT implementation context, user involvement refers to a psychological engagement factor conceptualized as a reflection of the importance and personal relevance of the new IT to an employee (Barki & Hartwick, 1994). The concept of user involvement in IT implementation discusses how such an event is essential, salient, and personally relevant to an employee (Barki & Hartwick, 1989). User involvement could increase a sense of ownership and motivate individuals to learn and gain mastery of new IT. This could affect the evaluation of perceived opportunity and threat as well as the sense of control over the outcomes.

In the IS literature, *management support* is one of the most critical factors influencing the IT implementation process and success (Purvis, Sambamurthy, & Zmud, 2001; Sharma & Yetton, 2003). It refers to how organizational management, especially the senior management, actively championing and advocating for the new IT by signaling the importance of the change. Management support is defined as the degree to which an employee believes that there is a commitment to successfully implementing a new IT by the organization's management (Bala & Venkatesh, 2016; Sharma & Yetton, 2003). Such a factor is critical for employees to evaluate benefits, opportunities, and threats related to the new IT. Additionally, IT implementation is resource-intensive, and management support affects the perception of the resources' availability, which would shape the assessment of control and expected consequences.

While implementing new IT, it is expected that organizations offer *training* to their employee to learn and master features of the new technology (Goldstein, 1991). Within

the IS literature, Sharma and Yetton (2007) evidence the significant effects that training effectiveness has on successful information system implementation. Following Bala and Venkatesh (2016), we consider training effectiveness critical for the contextual IT implementation characteristics. It is defined as the degree to which an employee finds the training related to a new IT, provided during the implementation, adequate (Aiman-Smith & Green, 2002; Bala & Venkatesh, 2016). If an employee believes that effective training has been offered, they would be more engaged and acquire knowledge to shape the cognitive appraisal. It is more likely to recognize new IT opportunities in terms of personal and professional growth. Further, training is a critical source of motivation and learning. Additionally, it enables employees to acquire knowledge; such knowledge will eliminate the perception of threats and increase their resources to cope and adapt to the IT changes (Agarwal & Prasad, 1999; Sharma & Yetton, 2007).

We define *the transparency of information* as the degree to which one believes that he or she is familiarized with the change's existence and is provided information on how the change functions. The notion of transparency refers to the quality of having open communications of information with others. Organizations can transparently use various forms of announcements to inform their employee regarding the importance and benefits of the change; further, they could discuss the new requirements and importance of them to the organization and employees (Bélanger et al., 2017). IS literature refers to these different forms of announcements as triggers that could affect employees' adaptation to new IT implementation (Lapointe & Rivard, 2005). In this regard, awareness is a critical factor, which refers to how an employee is conscious of change and its features and

benefits. The concept of transparency of information emphasizes how different methods of announcements or the absence of such appropriate channels (for instance, unofficial breach of the news) could trigger awareness. Employee's primary and secondary appraisals are influenced by these initial stages of new IT events and transparency of information.

Following Falahati and Lapointe (2020), we define *the transparency of use* as the extent to which at least a group of other users' IT-use is visible to or traceable by employees. A vital component of this notion is the transparency in how and for what purpose the new IT works. IS literature provides multiple arguments on how peers' opinions and experiences can shape individuals' perceptions regarding the new IT changes. For instance, transparency of use could develop social comparison among users, shape the user behavior's legitimacy, reminding or alerting the peers about the consequences, and providing help-seeking (Falahati & Lapointe, 2020). Through these mechanisms, transparency of use could shape individuals' appraisals of perceived opportunity, threat, and control over the new IT.

Dispositional Factors Affecting Appraisals – Personality Traits

The transactional model argues that stress is the outcome of how individuals appraise disturbing changes concerning their own available coping resources, which shape their adaptational behaviors towards such changes (R. Lazarus & S. Folkman, 1984). Understanding user adaptation to IT changes depends on individual differences (McElroy, Hendrickson, Townsend, & DeMarie, 2007). It is crucial to understand how personality characteristics play a role in stressful encounters and how individuals

appraise changes. Individuals' dispositions are influential in affecting the relationship between contextual characteristics of an IT stimulus event and the ways they appraise such event. More critical, personality influences appraisal and cognitive evaluation of the significance of the IT events (Smith & Lazarus, 1990); in the sense that during a similar encounter with the same contextual characteristics, two employees might have a different evaluation of the IT stimulus event. Because they can have a different set of evaluations for the impact or significance of the stressful encounter and their concerns regarding coping resources available to them to manage the encounter.

From this perspective, the role of individuals' dispositions and specifically the five-factor model of personality includes openness, conscientiousness, agreeableness, extraversion, and neuroticism (McCrae & Costa, 1987) remained unexplored in user adaptation to new IT. For that matter, Devaraj, Easley, and Crant (2008) discuss that although the management and psychology research has gain benefit by incorporating the five-factor model of personality into their theoretical lens; however, the domain of individual differences and personality has received limited attention in technology acceptance models and IS literature in general. There is no doubt that the IS research, in particular IT adaptation and use domain, can gain benefit from recent advances in personality psychology (Barnett, Pearson, Pearson, & Kellermanns, 2015; Devaraj et al., 2008; Johnston, Warkentin, McBride, & Carter, 2016; McElroy et al., 2007). Hence, we investigate personality, and the five-factor model on user adaptation towards IT changes. Such investigation is taking a step towards understanding how personality traits affect users' job outcomes regarding IT changes and their adaptation behavior.

To a greater degree, personality characteristics are the stable dispositions that determine people's commonalities and differences, reflecting on different facets of each individual such as their attitude, beliefs, thoughts, and actions (McElroy et al., 2007). It is evidenced that personality plays a significant role in human behavior and cognition. As IS literature has evidenced, multiple IS-research domains can incorporate personality and five-factor models into conceptual models (Devaraj et al., 2008; McElroy et al., 2007). Following McElroy et al. (2007) that suggests introducing the big five personality factors into models of technology acceptance and adoption as an avenue for research, we use openness, conscientiousness, agreeableness, extraversion, and neuroticism (McCrae & Costa, 1987) in our conceptual model to investigate the user adaptation process to new IT changes. Table 4 provides the definition and description of these personality traits.

Table 4. Definition of the Five-Factor Personality Model	
Personality Trait	**Definition**
Openness	'Openness to experience characterizes individuals who are willing to try new and different things. They actively seek out new and varied experiences and value change.'
Conscientiousness	'Conscientiousness characterizes individuals who are intrinsically motivated to achieve, perform at a high level and take actions to improve their job performance.'
Extraversion	'Extraversion characterizes individuals who are social, active and outgoing and place a high value on close and warm interpersonal relationships. The biggest motivation for such individuals to adopt an innovation is possible gain in terms of social image.'
Agreeableness	'Agreeableness characterizes individuals who are kind, considerate, likable, helpful and cooperative. Agreeable individuals are more likely to be accommodating and cooperative when asked to consider a new technology.'
Neuroticism	'Neuroticism characterizes individuals who are anxious, self-conscious, paranoid and prone to negative emotions and negative reactions to work-related stimuli.'

Source: (Srivastava, Chandra, & Shirish, 2015)

The five-factor personality trait model, also known as openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism, contributes to a new approach looking at personality (McCrae & Costa, 1987). Several years of management and psychology research resulted from multiple factor analyses studies, propose that these five personality traits could serve as a reference framework to personality in theory building (Antonioni, 1998). This theory of personality, a product of rigorous quantitative analysis, puts forward evidence on the consequential validation and predictive utility of how these distinctive personality traits can shape individuals' rationality, thoughts, emotions, and behaviors (J. Costa & Paul, 1996). The five-factor personality traits which will be used to identify the users' appraisals of the technology are described as follows: *openness to experience* (the tendency to open-mindedness, preference for variety, independent of judgment, empathetic, creative, curious, and aesthetically responsive), *conscientiousness* (the tendency to control impulses and act in a socially acceptable way, strong sense of purposefulness, responsibility, dependability and trustworthiness), *extraversion* (the tendency to seek stimulation of others, sociableness, assertiveness, ability to articulate, and social confidence), *agreeableness* (the tendency to strive for harmony, low levels of conflict in interpersonal relationships, kindness, patience, humbleness, loyal, sensitive, and considerate), and *neuroticism* (the tendency to experience pessimism, insecurity, anxiousness, hostility, lack of confidence, embarrassment, unpleasant emotion, and anxiety in an easy manner) (Goldberg, 1981; John & Srivastava, 1999; McCrae & Costa Jr, 1991; L.-f. Zhang, 2006). In the present study, we theorize and investigate the moderating effect of this five-factor personality on

the relationship between the situational factors affecting cognitive appraisals and users' primary and secondary appraisals of an IT event.

RESEARCH DESIGN

The present research aims to cross-validate the research findings obtained by the transactional model of stress and coping and the coping model of user adaptation; to investigate the effects of the new IT implementation on employees' adaptational evaluations, coping strategies, and job outcomes (Bala & Venkatesh, 2016; Beaudry & Pinsonneault, 2005). The adaptational demands and resources are introduced by the situational factors and implementation characteristics affecting employees' cognitive appraisals in organizations. Further, the five-factor model of personality enables us to understand better users' response to IT changes by emphasizing the interaction of situational and distortional factors. Figure 4 presents the conceptual framework for the present study, which depicts the user adaptation and coping behavior as a result of an IT change. This model draws upon the interactional perspective and extends our understanding of the mediation mechanisms of how a significant IT event could affect employees' job performance, satisfaction, and burnout through different coping appraisals and strategies.

Conceptual Framework
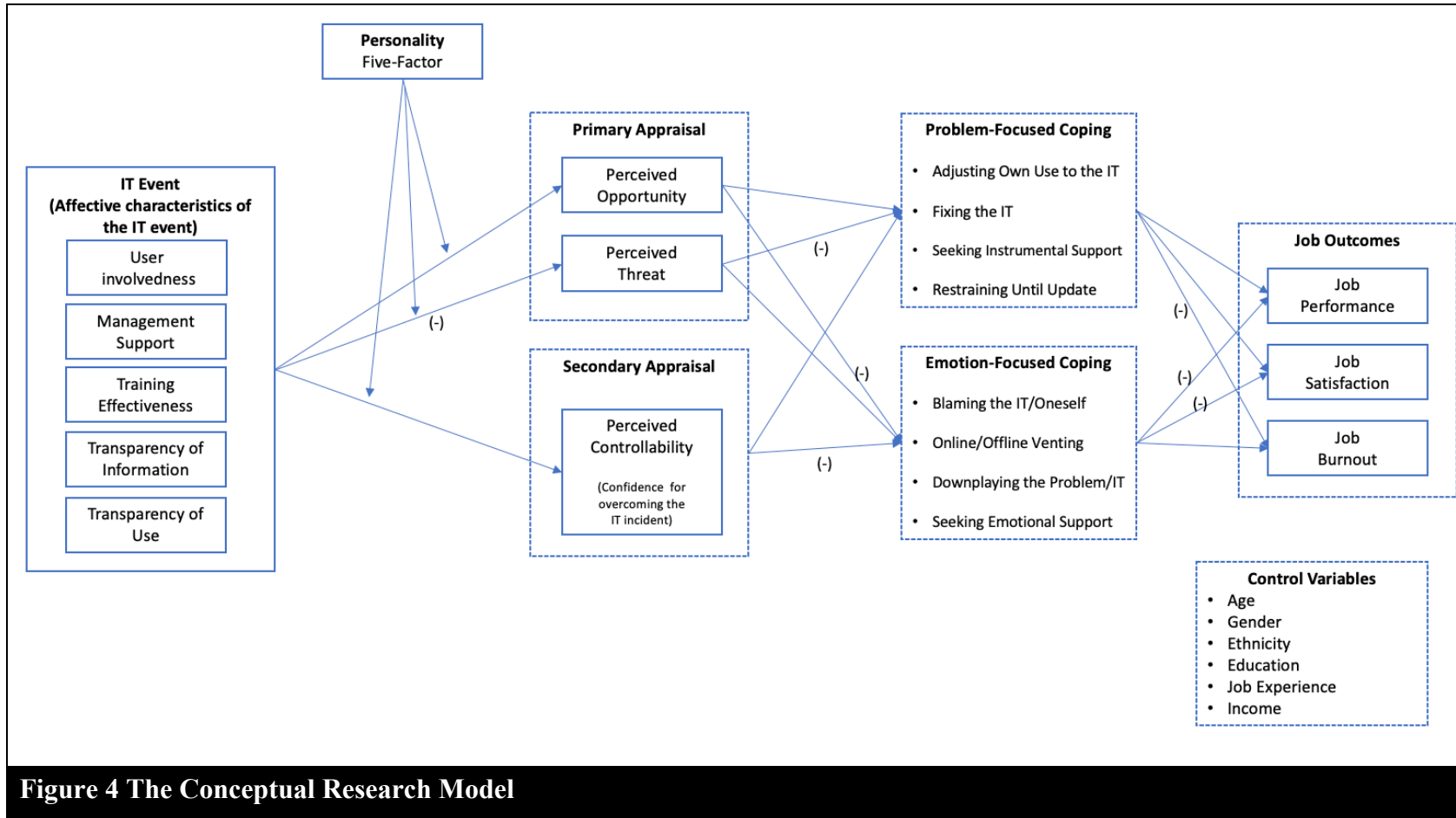
Figure 4 The Conceptual Research Model

Theoretical Development and Hypotheses

Copping model of user adaptation starts with employees' awareness of the IT event, which refers to their consciousness of and interest in knowing about IT changes, the potential benefits, threats, and consequences. These theories suggest that employees leverage situational and context-specific resources or feel discouraged by the lack of resources or sanctions when they appraise IT-related changes in their organizations. Consistent with the coping theories in IS literature, we identify five different types of IT implementation characteristics as situational factors in our conceptual model. User involvement, management support, transparency of use, transparency of information, and training effectiveness. Further, in this study, we theorize the interaction of dispositional factors (five-factor personality model) and contextual factors (IT implementation characteristics).

User Involvement

In the IS literature, the user involvement construct has been differentiated from other similar psychological states such as attitude, which refers to an affective or evaluative judgment of the event (Barki & Hartwick, 1994; Fishbein & Ajzen, 1977). High user involvement indicates that employees who find an issue important and personally relevant to them tend to have a more positive approach concerning the event (Barki & Hartwick, 1989). Such individuals are more likely to be motivated to process information related to IT-induced changes due to higher personal relevance. Therefore they would be more involved, and have a feeling of ownership, be interested in learning different features and mastering IT. Such a high sense of personal relevance and perceived

importance of the IT change will lead to a better realization of the benefits and

opportunities that the new IT can offer at the personal and professional level (Bala &

Venkatesh, 2016). As a result of a higher chance of learning different features and

mastering IT, individuals will have a more heightened sense of perceived opportunity.

Also, they would be able to manage the threats and reduce the harmful facets of the IT

event; overall, this will increase the chance of positive outcomes of IT-related changes

for the employee (Barki & Hartwick, 1994). Finally, higher user involvement indicates a

positive psychological state towards the IT to learn and use it, which gives an employee a

higher sense of control over the consequences. Having that in mind that such perception

of control itself is a subjective psychological state or sense of control over the IT

changes.

Management Support

Management support sends signals and provides clues regarding what behaviors related

to the new IT is encouraged by the organization. Such calls could create positive

psychological states in an employee. The organization's management sees value in the

latest IT; hence they will provide the required resources to ensure a successful

implementation. These beliefs increase the likelihood that an employee perceives the new

IT as an opportunity and minimizes its threatening aspects. Management support is

defined as the degree to which one believes that there is a commitment to a successful IT

implementation of a new IT by its management. It is vital due to the fact that a new IT

implementation is highly resource-intensive, and such support increases the chance of the

organization's commitment to providing those resources during the implementation

period (Sharma & Yetton, 2003). A higher sense of management support would develop an understanding of legitimacy for the new IT among employees. This legitimacy-signal would motivate the employee to gain status in the organization by using IT.

Additionally, one might see an opportunity to use the IT, which the management supports, to follow the norms and perform their tasks more effectively to satisfy their senior management. In this case, an employee would seek better status, and at the same time, gain a sense of safety that they will not lose their job and could manage possible threats associated with IT changes (Edmondson, 1999). Further, these beliefs regarding a greater extent of management support and resources available and legitimizing the new IT will create a higher sense of controllability to deal with new IT. Greater availability of resources and management support will make it feasible to learn and explore new features of the IT more actively.

Training Effectiveness

The IS literature theorizes multiple pathways that effective training influences the implementation success of a new IT. *Training effectiveness* refers to the degree to which an employee finds the training provided during the implementation to be adequate to work with the latest IT. Organizations offer appropriate training and other situational experience to develop sufficient knowledge and familiarity with the new technology's features and functions. For instance, Agarwal and Prasad (1999) argue that training will directly affect new IT implementation success by positively shaping employees' beliefs, attitudes, and perceptions regarding usefulness and ease of use. Such perceptions will develop a greater sense of potential benefit and opportunity. At the same time learning

new skills through effective training would eliminate perceptions of threat. This would lead to higher perceptions of personal and professional achievements. Training involves employees in cognitive activities through which they gain more heightened awareness and knowledge from different sources about how to use different technical features of a new IT. Training enables employees to overcome knowledge barriers through application knowledge and business context knowledge, which develops individuals' adaptations and affects IT implementation success (Sharma & Yetton, 2007). Therefore, we consider effective training as one of the most critical contextual factors during the IT implementation stage.

Transparency of Information

Transparency of information is a critical practice to introduce and implement a new IT, affecting employees' adaptation. By considering different forms of announcements or triggers, we suggest that transparency of information impacts employees' awareness and the perception of opportunity and threat. It seems clear to assume that an employee must first be aware of the changes to be able to appraise either positive or negative evaluation of the new IT. Awareness refers to employees' raised consciousness of and interest in knowing about IT changes, the potential benefits, threats, and consequences (Dinev & Hu, 2007). For instance, Da Cunha and Orlikowski (2008) reported how the lack of transparency of information contributed to shaping employees' perception of IT changes to be problematic and a threat to their identity. In that case, the employees felt left out without knowing anything about the changes and found out that a confidential plan was in place, which they got informed about it through a leak in a newspaper. Without

transparent information on the importance and benefits of the change or the new requirements and meaning to the organization and employees, lack of awareness would be evaluated as a threat and low control over the latest IT and its consequences. Organizations can use different communication methods to transparently make announcements and inform their employee regarding the importance of the change to the organization and employees (Bélanger et al., 2017).

Transparency of Use

IS research offers multiple conceptualizations and associated concepts or constructs for social influence on users' beliefs and behaviors towards IT changes (Lewis, Agarwal, & Sambamurthy, 2003). For instance, the Theory of Reasoned Action offers an explanation for individuals' behavior by considering normative beliefs and motivation to comply (Fishbein, 1979; Fishbein & Ajzen, 2011). It suggests that one's behavior is a function of normative believes, which is the perceived expectation of important others about the IT use behaviors. Further, motivation to comply with the real or imagined pressure feels for their behavior (Hale, Householder, & Greene, 2002). In another conceptualization, the Theory of Planned Behavior theorizes the concept of social influence from peer groups. This theory considers how social and subjective norms, including others' thoughts and behaviors, feed into and form individuals' beliefs and intentions to use IT (Ajzen, 1991).

In our conceptualization, we follow the work of Falahati and Lapointe (2020), which define the transparency of use as the extent to which the employees can see how the other users (at least a group of other users) are utilizing the IT and what they are accomplishing with it. Such quality regarding how and for what purpose the IT is used for to others has

the ability to influence and form employees' perception of opportunity and threat and control over the IT. We can argue different mechanisms that transparency of use influences individuals evaluations of IT changes, including social comparison among others, legitimacy of the use behaviors, reminding/alerting the peers (to motivate or discourage use-behavior), and seeking social or professional support. Consequently, organizations' practices that provide such transparency of use during the IT event's implementation phase could affect employees' appraisal and coping behavior.

Interaction of Dispositional and Situational Factors

This study investigates the extent to which environmental and contextual factors contribute to coping appraisals, particularly assessing the effect of IT implementation characteristics on the primary and secondary appraisals. Further, this investigation sheds light on how individuals' dispositions, specifically personality traits, play a role in influencing the relationship among contextual indicators of an IT stimulus event to interact with the users' primary appraisal as an opportunity or a threat and secondary appraisal (control over the consequences) towards the introduction of a new technology. By utilizing the coping model of user adaptation, we develop a theory to explain users' IT adaptation behaviors as a coping process by individuals and their choices of coping strategies, that could affect their job outcomes. Drawing from early work on the Transactional Model of Stress and Coping by R. S. Lazarus and S. Folkman (1984) and the Coping Model of User Adaptation by Beaudry and Pinsonneault (2005), this study offers multiple hypotheses statements that will make theoretical contributions and has insightful implications for practice. Figure 5 represents these hypotheses based on the interaction of dispositional and situational factors.
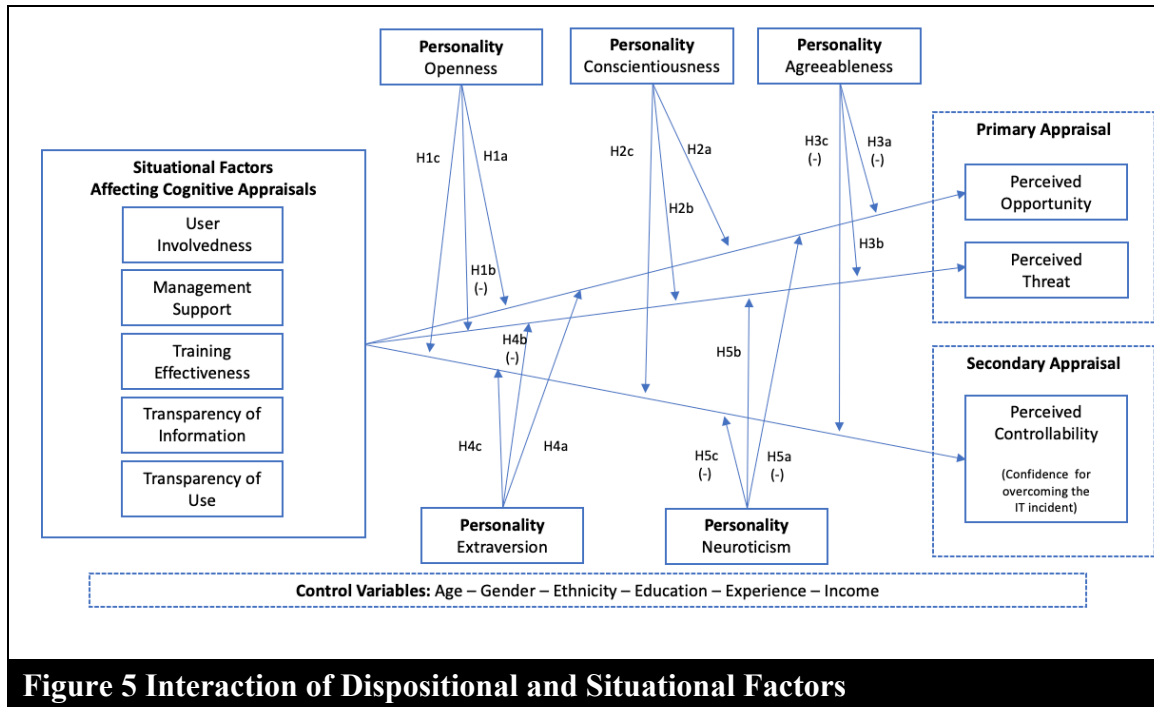
Figure 5 Interaction of Dispositional and Situational Factors

Openness to Experience

The personality trait that is least likely to change over time and the most to help

individuals grow is Openness to experience. This personality trait is well-known for its

high flexibility of thoughts and open-mindedness of new ideas. As a result of that,

individuals who score high in Openness actively pursue new experiences and are curious

to seek out changes or new things (P. Costa & McCrae, 1992). Individuals with a high

level of Openness to experience are recognized by more heightened awareness,

responsiveness, exploring, and curiosity regarding changes and new things (McCrae &

Costa Jr, 1991). Further, open individuals have consistently been associated with training

proficiency who enjoy different learning approaches (Barrick, Mount, & Judge, 2001). In

addition, Devaraj et al. (2008) argue that considering rapid IT-related changes in an

organizational environment, Openness to experience is crucially important to understand

employees' behavior towards such changes better. For example, from a transactional model of stress and coping perspective, these individuals are known to have a positive attitude and understanding toward job-related technologies and any stress associated with them (Srivastava, Chandra, & Shirish, 2015). This includes ICT related disruptions and provides an opportunity to increase performance as well as gain knowledge.

Among individuals with a high level of the personality trait of openness, the positive reaction to IT-related stress will decrease emotional exhaustion or job burnout and instead increase job performance, engagement, and the learning opportunities associated with stress caused by IT (Devaraj et al., 2008). This trait can explain that individuals with such characteristics are more eager and engage in new ITs and open to learning-oriented experiences (Barnett et al., 2015). Openness to experience is related to greater willingness to learn and inquire about training proficiency and intentions to use IT. On the other hand, it is expected that a low level of openness to experience be associated with individuals finding it difficult to adapt to new IT. It is due to the negative cognition towards changes and feeling very uncomfortable with IT change.

Altogether, the affective characteristics of the IT event are likely to create (i) greater perception of opportunity, (ii) lower perception of threat, and (iii) greater perception of control over IT for individuals with a high level of openness to experience compare to those with a low level of the personality trait of openness. Such that the effect of IT event's affective characteristics on perceived opportunity and perceived controllability will be stronger when openness to experience is high and weaker when openness to experience is low. On the other hand, the effect of IT event's affective characteristics on

perceived threat will be weaker when openness to experience is high and stronger when openness to experience is low. Therefore, we expect that the tendency to open-mindedness, preference for variety, willingness to try new and different things, higher awareness, more eagerness and engage in new ITs, and open to learning-oriented experiences are likely to be greater for individuals with high openness personality compare to employees with a low level of openness. In other words, the provision of more resourceful IT implementation characteristics such as user involvement, management support, transparency of use, transparency of information, and training effectiveness will create more favorable primary and secondary appraisal evaluations of an IT event. The openness to experience personality trait will help increase the perception of opportunity and controllability and decrease the perception of threat created by the affective characteristics of the IT event. We, therefore, offer the following hypotheses:

Hypothesis 1A (H1a). Openness to experience positively moderates the direct impact of IT event's affective characteristics on perceived opportunity.

Hypothesis 1B (H1b). Openness to experience negatively moderates the inverse impact of IT event's affective characteristics on perceived threat.

Hypothesis 1C (H1c). Openness to experience positively moderates the direct impact of IT event's affective characteristics on perceived controllability.

Conscientiousness

Individuals who are high in *Conscientiousness* trait are well-known for their strong sense of competence, achievement, organized, self-discipline, act in a planned and duty manner (Anastasi & Urbina, 1997; McCrae & Costa, 1987). On account of these characteristics,

conscientious individuals are motivated to learn, engage in behaviors that help them succeed, and more likely accept IT changes that create an opportunity to help them succeed (Barnett et al., 2015; Srivastava et al., 2015). Consequently, these individuals are more eager for learning opportunities or acquiring new skills relevant to their profession (Barrick & Mount, 1991). In this regard, McElroy et al. (2007) evidence the relationship between conscientiousness with technology-use to carrying out tasks. Individuals described as high in the conscientiousness personality trait are more likely to consider how a new IT would enable them to be more effective (Devaraj et al., 2008). Therefore, these individuals will develop a more robust positive perception of IT implementation characteristics, empowering them to grow and perform better. Due to this personality trait's qualities, conscientiousness will magnify the perception of opportunity and control over IT. On the contrary, because of the fact that conscientious individuals are strong-willed, task-focused, detail, and achievement-oriented, they will carefully consider and weigh the harms or threats of the new IT as well. Therefore, this trait will also increase negative and threat appraisal of a poorly implemented IT, which possibly could not improve their performance (Devaraj et al., 2008; L.-f. Zhang, 2006).

Further, due to the detail-oriented characteristics, conscientious individuals value subjective norms, duty, self-disciplined, and practice deliberation in working towards increased competence (Roccas, Sagiv, Schwartz, & Knafo, 2002). Therefore, we would expect that these individuals consider others' opinions in their network while appraising the significance of the changes and potential use behavior towards new IT event. For that reason, the affective characteristics of the IT event such as transparency of use, which represents how the other users are utilizing the IT and what they are accomplishing that

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could shape a more robust perception of opportunity (or threat in the case of negative subjective norms) among employees with a high level of conscientiousness (Devaraj et al., 2008). We can argue that individuals low on conscientiousness are not processing available information as carefully as individuals high on this trait; therefore, they do not weigh in the IT event's affective characteristics while appraising the new IT.

Overall, we conceptualize that the situational factors affecting cognitive appraisals are more likely to create (i) greater perception of opportunity, (ii) greater perception of threat (stronger inverse relationship), and (iii) greater perception of control over IT for individuals with a high level of conscientiousness compare to those with a low level of this personality trait. Such that the effect of IT event's affective characteristics on perceived opportunity, perceived threat, and perceived controllability will be stronger when conscientiousness is high and weaker when conscientiousness is low. Consequently, the higher the propensity of intrinsic motivation, attention to details, sense of competence, cautiously considering and weighting in the opinions of important others, and persistence to gain more achievement is likely to be greater for individuals with a high level of conscientiousness compare to employees with a low level of conscientiousness. Therefore, the provision of favorable situational factors affecting cognitive appraisals will create a greater perception of opportunity and control. On the other hand, a negative and poorly implemented new IT characteristic will significantly influence the perception of threat. This personality trait will positively moderate the relationship between the IT event's affective characteristics and users' primary and secondary appraisals. We, therefore, offer the following hypotheses:

Hypothesis 2A (H2a). Conscientiousness positively moderates the direct impact of IT event's affective characteristics on perceived opportunity.

Hypothesis 2B (H2b). Conscientiousness positively moderates the inverse impact of IT event's affective characteristics on perceived threat.

Hypothesis 2C (H2c). Conscientiousness positively moderates the direct impact of IT event's affective characteristics on perceived controllability.

Agreeableness

The *agreeableness* personality trait is described with characteristics such as the tendency to be kind, low levels of conflict in interpersonal relationships, considerate, and helpful (John & Srivastava, 1999). McCrae and Costa Jr (1991) state that individuals high in agreeableness show a considerable tendency to cooperate, involve interpersonal interactions, and collaborate with others. Further, because these individuals are characterized as kind and good-natured, it is common to appear more tolerant and trust others (Barrick & Mount, 1991). These individuals are more likely to accommodate and cooperate when introduced to new organizational ICT even though they might not have the capability or will. This personality orientation might affect their perception of an IT stimulus event (Srivastava et al., 2015).

Although we can consider a positive attitude towards new IT among individuals with a high level of agreeableness personality, mainly focusing on positive and cooperative aspects of the change (Devaraj et al., 2008). Largely, this is due to the fact that these individuals are willing to accommodate and tolerate organizational IT changes even if they do not have the required capabilities. Consequently, IS literature has evidenced that

high agreeableness personality trait does not contribute to a greater motivation to learn, and as a result, has a weak connection to task performance (Barrick & Mount, 1991; D. A. Major, Turner, & Fletcher, 2006). In the sense that individuals with high agreeableness might cooperate with new IT while they are not comfortable with these changes, and such changes do not provide them more opportunities (Srivastava et al., 2015). The negative perceptions towards the IT event's affective characteristics will make these individuals feel threatened when performing tasks beyond their capacity, increasing stress levels and resulting in emotional exhaustion associated with the primary and secondary appraisals and adaptational behavior towards a new organizational ICT.

Overall, we conceptualize that the situational factors affecting cognitive appraisals are more likely to create (i) weaker perception of opportunity, (ii) greater perception of threat (stronger inverse relationship), and (iii) weaker perception of control over IT for individuals with a high level of agreeableness compare to those with a low level of this personality trait. Such that the effect of IT event's affective characteristics on perceived opportunity and perceived controllability will be weaker when agreeableness is high and stronger when agreeableness is low. On the other hand, the effect of IT event's affective characteristics on perceived threat will be stronger when agreeableness is high and weaker when agreeableness is low. We, therefore, offer the following hypotheses:

Hypothesis 3A (H3a). Agreeableness negatively moderates the direct impact of IT event's affective characteristics on perceived opportunity.

Hypothesis 3B (H3b). Agreeableness positively moderates the inverse impact of IT event's affective characteristics on perceived threat.

Hypothesis 3C (H3c). Agreeableness negatively moderates the direct impact of IT event's affective characteristics on perceived controllability.

Extraversion

A few extraversion trait characteristics include sociableness, assertiveness, ability to articulate, social confidence, and placing a high value on warm and personal friendships (P. Costa & McCrae, 1992). Extraversion is high when individuals are dominant sociability and draw their energy from their interactions with others. Additionally, this personality trait is associated with higher learning goal orientation and motivation to gain new skills (Barrick & Mount, 1991). Individuals described as high in the extraversion personality trait value higher social status and such desire drives their behavior as the primary motivation deciding to adopt and use new ITs (Rogers, 1983). IS literature evidence that it is more likely that individuals with a high level of extraversion possess more positive evaluation and attitude towards IT compare to those with a low level of extraversion (Zmud, 1979). In their article, Devaraj et al. (2008) demonstrated that extraversion moderates the relationship between subjective norms and behavioral intention towards new IT. These individuals consider others' opinions in their social network, and if others believe in the IT and use it, extravert individuals are willing to adopt and use the new IT as well because these individuals are highly motivated to gain social status.

Extravert individuals are motivated to use new technologies introduced to their organization as they are intrinsically motivated to maintain a favorable social image within their organization. From the transactional model of stress and coping perspective,

individuals high in extraversion will be more likely to view the IT event's affective characteristics as an opportunity to influence their organization and improve job performance (Srivastava et al., 2015). Consequently, ICT is seen as an opportunity to have lower experienced emotional exhaustion and perception of threat related to the IT event's affective characteristics compared to individuals with low levels of extraversion. Further, because extravert employees are inclined to consider their social image and are highly motivated to adopt innovation to grow and gain new skills, they will have a higher perception of IT control compared to employees with low levels of extraversion. Overall, the affective characteristics of the IT event are likely to create (i) greater perception of opportunity, (ii) lower perception of threat, and (iii) greater perception of control over IT for individuals with a high level of extraversion compare to those with a low level of the personality trait of extraversion. Such that the effect of IT event's affective characteristics on perceived opportunity and perceived controllability will be stronger when extraversion is high and weaker when extraversion is low. On the other hand, the effect of IT event's affective characteristics on perceived threat will be weaker when extraversion is high and stronger when extraversion is low. We, therefore, offer the following hypotheses:

Hypothesis 4A (H4a). Extraversion positively moderates the direct impact of IT event's affective characteristics on perceived opportunity.

Hypothesis 4B (H4b). Extraversion negatively moderates the inverse impact of IT event's affective characteristics on perceived threat.

Hypothesis 4C (H4c). Extraversion positively moderates the direct impact of IT event's affective characteristics on perceived controllability.

Neuroticism

Some may associate the term *Neuroticism* with meanness and incompetence; however, traits associated to neuroticism include pessimism, insecurity, anxiousness, hostility, lack of confidence, embarrassment and depression. Individuals high in neuroticism tend to have negative emotions when facing changes. This personality trait is a negative channel that the person's interaction with environmental factors are interpreted, which commonly triggers negative emotions for individuals high on neuroticism. As a result, these individuals are more fearful of new situations and might experience feeling of helplessness (J. Costa & Paul, 1996).

Neuroticism is negatively connected to individuals' learning goal orientation and motivation to learn (Payne, Youngcourt, & Beaubien, 2007). Therefore, it is not expected for individuals high on neuroticism personality trait to pursue opportunities to grow by learning new things including new ICTs implemented by organizations (D. A. Major et al., 2006). Within the IS literature, Marakas, Johnson, and Palmer (2000) conceptualize that neuroticism is connected to users' personification towards IT. They discuss that high level of neuroticism is related to anxiety about new things and changes. Therefore, these individuals will have a difficult time to adapt with organizational changes in ICTs.

As Srivastava et al. (2015) explain, neuroticism has previously been identified as one of the personality variables affecting beliefs about behaviors; and empirical research has found it to be negatively associated with job outcomes. These individuals are less likely to view new ICT as an opportunity for their carrier success or a chance to improve the situation. Additionally, it is related to negative reactions to organizational novel

situations; so changes in IT and adaptation to these changes can be seen as a threat and develop negative appraisal of control. This will lead to a greater anxiety, increasing emotional exhaustion, and negative adaptational behavior.

All together, we conceptualize that the situational factors affecting cognitive appraisals are more likely to create (i) weaker perception of opportunity, (ii) greater perception of threat (stronger inverse relationship), and (iii) weaker perception of control over IT for individuals with high level of neuroticism compare to those with low level of this personality trait. Such that the effect of IT event's affective characteristics on perceived opportunity and perceived controllability will be weaker when neuroticism is high and stronger when neuroticism is low. On the other hand, the effect of IT event's affective characteristics on perceived threat will be stronger when neuroticism is high and weaker when neuroticism is low. We therefore offer the following hypotheses:

Hypothesis 5A (H5a). Neuroticism negatively moderates the direct impact of IT event's affective characteristics on perceived opportunity.

Hypothesis 5B (H5b). Neuroticism positively moderates the inverse impact of IT event's affective characteristics on perceived threat.

Hypothesis 5C (H5c). Neuroticism negatively moderates the direct impact of IT event's affective characteristics on perceived controllability.

User coping mechanism and adaptation strategies emphasize the mediation process among IT usage behaviors and their contextual and dispositional antecedents to better understand how individuals cope with IT changes (Beaudry & Pinsonneault, 2005; Benbasat & Barki, 2007; Stein et al., 2015; Tarafdar, Cooper, & Stich, 2019). The concept of coping refers to the broad set of individual cognitive and behavioral efforts used by the mind (or body) to manage a stressful, demanding situation (Folkman & Lazarus, 1980; R. Lazarus & S. Folkman, 1984). Whereas the coping strategies are individual's actual responses and attempts to manage stress appraisal; a specific way of realizing a coping effort in practice (Folkman & Lazarus, 1980; R. Lazarus & S. Folkman, 1984). Coping theories such as the transactional model of coping and stress (R. Lazarus & S. Folkman, 1984) and the coping model of user adaptation (Beaudry & Pinsonneault, 2005) discuss different properties of individuals' coping strategies based on their cognitive appraisals of the IT event.

The primary and secondary appraisals are cognitive processes that evaluate thoughts about the event or the process that mediates what the encounter implies for personal well-being, and if so, in what ways (R. Lazarus & S. Folkman, 1984). During the primary appraisal, individuals evaluate the IT event regarding its potential personal importance, relevance, and expected consequences. It is the person's subjective (implicit or explicit) evaluation to assess what is at stake for them in this situation and how that would affect them. Individuals can appraise the personal relevance of an IT as opportunity and threat. R. Lazarus and S. Folkman (1984) state that although the perception of opportunity and

perception of threat could be related to each other, we should treat them as two separate constructs that could happen at the same time.

Through this stage, some employees might evaluate the IT change as an anticipated opportunity for mastery or gain to improve their efficiency and enhance performance (Beaudry & Pinsonneault, 2005). It results from the fact that individuals feel confident about overcoming these challenges by effectively mobilizing and deploying their coping resources; they would select coping strategies to properly restore their well-being (R. Lazarus & S. Folkman, 1984). In this regard, opportunity or challenging stress refers to the potential for growth and positive outcome. On the contrary, threat appraisal is the anticipation of harm or loss that has not taken place but maybe imminent (R. Lazarus & S. Folkman, 1984). Some employees could evaluate the IT change as an anticipated danger for their organizational status or a risk to their performance, mainly if they had mastery of the previous IT system (Beaudry & Pinsonneault, 2005). Individuals might expect adverse effects from IT change on their authority, autonomy, or job security; therefore, they would appraise IT as a threat and use a different set of resources and coping strategies to deal with the IT changes (Bhattacherjee, Davis, Connolly, & Hikmet, 2018).

During the secondary appraisal, individuals evaluate the IT event in terms of the level of control they exert over the situation; further, based on their available resources, what adaptational options are at their disposal (R. Lazarus & S. Folkman, 1984). It is the person's assessment of their ability and resources to evaluate what they can do to manage the new IT consequences (Beaudry & Pinsonneault, 2005). In their study, adaptation to

information technology, Bala and Venkatesh (2016) conceptualize the secondary appraisal as the perception of controllability (high or low), which is formed by individuals' levels of competencies to deal with the consequences of IT changes, and the ability to use available resources to choose situation-specific coping strategies. Individuals with high perceived controllability will have a greater ability to leverage all the internal and external resources at their disposal to manage the stressful situation.

The primary and secondary appraisals have a critical role in identifying available coping options for the employees and choosing their coping strategies effectively to adapt to the new IT. The transactional model and the coping model of user adaptation posits coping as a choice that is converged by the primary and secondary appraisals and can be problem-focused or emotion-focused (Beaudry & Pinsonneault, 2005; R. Lazarus & S. Folkman, 1984). As we discussed earlier, problem-focused coping emphasizes managing the demanding situation with an employee's effort to alter the actual environment-person relationship. The problem-focused IT adaptation is associated with coping strategies like (i) fixing the IT to find workarounds and techniques to work with the new system, (ii) adapting personal work habits and tasks to adjust own to use the new IT as its features require, (iii) employees efforts towards seeking instrumental support and restraining until a solution is available for IT-related problems or adapting work by modifying procedures; and/or (ix) restraining and putting effort toward waiting for the IT provider's system solution for issues caused by the new IT (Beaudry & Pinsonneault, 2005, 2010; Orlikowski, 1996; Salo et al., 2020; Tyre & Orlikowski, 1996).

Nonetheless, in emotion-focused coping, the focus is on strategies that regulate the

emotional distress and prevent negative thoughts such as venting, distancing, and

changing the meaning of IT changes (Beaudry & Pinsonneault, 2005; R. Lazarus & S.

Folkman, 1984). This adaptation is concerned with individuals' perception of the negative

consequences or at regulating emotional distress; therefore, it does not make objective

changes in the environment-person relationship (R. Lazarus, 1995). The emotion-focused

IT adaptation is associated with coping strategies like (i) avoidance or employees' efforts

in downplaying the problem/IT and denying that IT is important and affects them, (ii)

accusing and blaming IT/others/oneself for causing the IT-related issues, (iii) employees

online or offline venting and openly expressing negative emotions to others, and/or (ix)

looking for sympathy, understanding, encouragement, advice, and moral support from

family, friends, and colleagues or from online (Beaudry & Pinsonneault, 2005, 2010; R.

Lazarus & S. Folkman, 1984; Salo et al., 2020; Zuboff, 1988).

Figure 6 Users' Coping Towards IT, Adaptation Strategies, and Job Outcomes
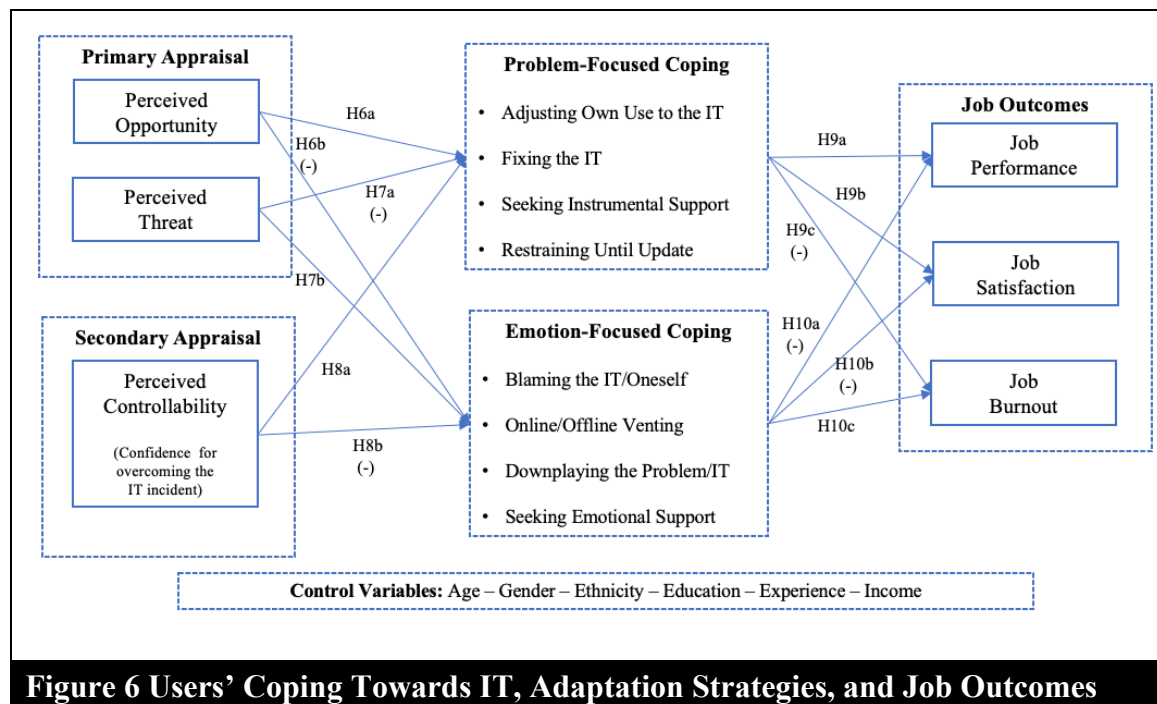
As shown in Figure 6, the evaluation of opportunity, threat, and controllability are crucial in individuals' adaptation and coping strategies. The problem-focused coping strategies refer to when an individual make a plan of action and concentrate on the next steps, weighing the alternatives in terms of their costs and benefits, choosing among them to act. Or on the other hand, emotion-focused coping strategies to regulate one's negative and stressful emotions; making the situation better by lessening emotional distress associated with the problem. These coping strategies are made in response to IT-related changes and depend on individuals' cognitive primary and secondary appraisals (Bala & Venkatesh, 2016; Beaudry & Pinsonneault, 2005; Folkman & Moskowitz, 2004). We, therefore, offer the following hypotheses:

Hypothesis 6 (H6). perceived opportunity will be (a) positively associated with problem-focused coping and (b) negatively associated with emotion-focused coping.

Hypothesis 7 (H7). perceived threat will be (a) negatively associated with problem-focused coping and (b) positively associated with emotion-focused coping.

Hypothesis 8 (H8). perceived controllability will be (a) positively associated with problem-focused coping and (b) negatively associated with emotion-focused coping.

User IT adaptation and Job Outcomes

There is no doubt that with high investment in new ITs, employee job outcomes and IT-enabled positive consequences are at the center of the organization leadership's attention. This theoretical framework provides a more in-depth insight into the mediation mechanisms that user adaptation and coping strategies are playing to relate IT

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implementation and its contextual factors with employees' job outcomes. Such knowledge is critical to develop and theorize appropriate interpretations concerning the influence of personality and environmental IT stimulus events on job-related effects such as performance, satisfaction, and burnout. Additionally, we expand the coping process's theoretical lens that connects users' primary and secondary appraisals, IT problem-focused or emotion-focused strategies, and organizational productive vs. counterproductive behaviors (Bala & Venkatesh, 2016). By addressing job performance, satisfaction, and burnout, three of the commonly discussed employees' job outcomes, this study's findings will provide valuable information on mitigating counterproductive or stimulating productive job outcomes through appraisal mechanism (Beaudry & Pinsonneault, 2005, 2010).

Therefore, this study argues that based on an employee's primary appraisal of a new ICT as an opportunity or threat and control over the consequences, they would have a different approach towards the changes. We should be mindful that if an organization does not carefully consider IT stimulus characteristics interaction with individuals' dispositions, it is more likely to observe deviation from intended ICT goals among their employees. Employee job outcomes and IT-enabled positive consequences can directly get affected by individuals problem-focused coping strategies such as (i) adjustment in use routines to adapt to the demands of the new IT, (ii) putting more significant efforts toward fixing the issues caused by the new system by changing the settings, through a workaround, or otherwise, (iii) seeking help from colleagues or from on-line or manual support to enhance the usage of the new IT, and (iv) more significant effort toward accommodating for the IT provider's system solution for issues caused by the new IT. We

argue that with more significant adaptational behavioral towards problem-focused strategies employees will explore, learn different features, reduces errors, works more efficiently, fulfill job-related needs, manage the IT-related demand, and use the new system, which will result in positive consequence and IT-enabled employee job outcomes such as greater job productivity, satisfaction, and lower job burnout (Bala & Venkatesh, 2016; Beaudry & Pinsonneault, 2005, 2010; Harrison, Newman, & Roth, 2006).

However, we position that employees' choice of emotion-focused coping strategies and adaptational behavior will reduce job performance and job satisfaction, also increases job burnout. Employees adapt to new IT by emotion-focused coping strategies to regulate their negative and stressful emotions primarily, making the situation less demanding by decreasing emotional distress associated with the situation. Therefore, employee job outcomes and IT-related negative consequences can directly get affected by individuals emotion-focused coping strategies such as (i) blaming themselves or accusing the new IT of causing the situation, (ii) avoidance by downplaying the situation and the IT role to diminish the importance of the problem or the IT's meaning in one's life, (iii) airing out my feelings, venting, or cursing (alone or with others), and (iv) seeking emotional support by looking for sympathy, understanding, encouragement, advice, and moral support from family, friends, and colleagues or from on-line. Thus, we posit that with more significant adaptational behavioral towards emotion-focused strategies, employees will avoid the new system, dismiss their IT-related tasks, miscommunicate or fail to obtain necessary information maintained by the new IT, be unable to fulfill their IT-dependent duties, and misuse the new system, which will result in negative consequence and IT-enabled employee job outcomes such as lower job productivity, satisfaction, and

greater job burnout (Bala & Venkatesh, 2016; Beaudry & Pinsonneault, 2005, 2010; Harrison et al., 2006). We, therefore, offer the following hypotheses:

Hypothesis 9 (H9). Problem-focused coping adaptation will have (a) positive effect on job performance (b) positive effect of job satisfaction, and (c) negative effect on job burnout.

Hypothesis 10 (H10). Emotion-focused coping adaptation will have (a) negative effect on job performance (b) negative effect of job satisfaction, and (c) positive effect on job burnout.

RESEARCH METHODOLOGY

Participants and Procedure

The unit of analysis for this proposal is at the individual level. We define the target population as the residents in the U.S. above 18 years old who have experienced working with information communication technologies. This study uses subjects participants from multiple sources for testing the research model: (i) students attending the college of business at a large University (FIU); these students enroll in various programs at the undergraduate, master, MBA, or DBA levels, and their participation is in exchange for advancing knowledge; (ii) faculty and staff at FIU which also their participation is in exchange for advancing knowledge; (iii) respondents recruited from Amazon Mechanical Turk (AMT) for a small financial incentive. We argue that these subjects' participants are quite appropriate for this research proposal. These participants are part of the defined target population of interest by meeting criteria such as adults studying or employed in the U.S. who have experience working with ICTs. Their inclusion in the sample will help us to investigate the theoretical relationships in the research model without scarifying the external validity or the potential consequences that sample choice could have on the notion of generalizability (Compeau, Marcolin, Kelley, & Higgins, 2012). We collect all data procedures online. Further, we should note that not all these segments of participants would be recruited during pilot studies and the final study.

Research Design

Our investigation employs a survey experiment method to test the research model. We use an online random assignment design to appoint subjects to different treatment groups

(Cook & Campbell, 1979). We collect more than 200 usable responses for our survey analysis. The study consists of five main steps: (i) participants read a text containing basic information related to real-world scenarios and framing description of the general context such as role-play as an Operations Manager at *OnlineGo,* and told that an information communication system, called *UniConnect,* was implemented at the firm to increase communication and information sharing capabilities (Elie-Dit-Cosaque & Straub, 2011), (ii) pre-manipulation, respondents read a text description for a situation in which their company wants to implement a new information communication system, (iii) as part of experimental survey manipulation we manipulate our independent variables by changing the wording of each scenario (D. Straub & Karahanna, 1998), (iv) we randomly assign each participant to read a hypothetical scenario (a scenario randomly drawn from 3 scenarios, the main points for each scenario are grounded on our literature review that describes IT implementation characteristics in organizations), (v) After reading the scenario we ask participants to answer survey questions. The survey questionnaire includes:

1. Items assess the Big-Five personality traits.

2. Questions regarding the commonly possible evaluation of the change, including the benefits or opportunities, threats or undesirable effects, and control over consequences.

3. Questions regarding the choice of adaptation strategies.

4. Items related to the measurement of organizational behaviors constructs, including job performance, job satisfaction, and job burnout.

5. Manipulation check items to ensure that the respondents identify the text manipulation conditions.

6. Finally, demographic items such as age, gender, ethnicity, education, professional experience, and household income status.

Informed and Blind Pilot Studies

To gain a deeper understanding of the conceptual framework, this proposal conducts informed and blind pilot studies. We conducted an informed pilot with selected researchers from Ph.D. programs at the College of Business and the Department of Economics at FIU. This pilot includes four members to improve the experimental framing and scenarios, validate the instruments, and refine measurement scales (D. Straub, Boudreau, & Gefen, 2004). For the purpose of content validity and evaluating the appropriateness of language we discussed our framing scenarios as well as the measurement items with IS scholars. As a result of this exercise, we were able to make the necessary modification in the main framing description for roll-playing, the scenario description, manipulation check items, and the coping strategies to increase logical consistency, ease of understanding, contextual relevance, and sequencing of the items (Wu, Straub, & Liang, 2015).

Further, to ensure that actual manipulation are adequately designed and the measurement instrument is valid and reliable, we conduct a blind pilot. This pilot employs an experimental survey approach that administered via Qualtrics and recruited participants through Amazon Mechanical Turk platform. One hundred and twenty two MTurk workers completed the pilot survey. To enhance the quality of the data and address

common-method biases we follow the IS literature for methodological remedies (Goodman, Cryder, & Cheema, 2013; Lowry, Zhang, Wang, & Siponen, 2016; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Further, we combine these procedural remedies with features and techniques offered by Qualtrics' survey design and MTurk's screening options.

We put high efforts to prevent common-method bias and help data accuracy. Suitably, we applied multiple procedures and techniques to enhance the quality of the data collection processes including but not limited to: (i) we randomized the treatment assignment through Qualtrics survey flow option; (ii) we randomized the order of the responses and changed the cues for some of the questions; (iii) we presented the main scenario and the framing on top of every page to emphasize the importance of paying attention; (ix) we included multiple attention check questions to confirm that the respondents were paying attention and understanding the survey questionaries appropriately; (x) through assessing and tracking the time allocated by the participants, we eliminated the cases that the participants spent only a few seconds on a page that required reading a manipulation scenario or answering an extended matrix of questions; (xi) we examined the data points in terms of homogeneity of responses and screened if a case contained equal responses to the survey questions; and (xii) we incorporated a random ID code, which is a unique six-digit random number generated by Qualtrics to verify the inserted response's legitimacy.

Further, we included some criteria for MTurk HIT workers to ensure they are fitting within the population of interest. We limited location to solely include IP addresses within the U.S. and controlled for duplicate response from the same IP address. We

Recruited HIT workers with more than 75% previous approval rate to enhance the quality of data. We offered 2$ for a task that took less than 10 minutes on average to complete; such payment level presented a chance to participants to gain more than the minimum wage per hour by completing the survey.

Through data cleaning and screening, 41 data points (out of 122) were removed as they constitute lack of attention, speeding through the survey, or invalid data entry. Kruskal-Wallis test was carried out as a manipulation check to test the effects of the scenarios on user's perceived involvement, management support, transparency of information, training effectiveness, and transparency of use. The Kruskal-Wallis test statistics showed that there was a statistically significant difference in perception of user Involvement, management support, transparency of information, and training effectiveness across treatment groups. Yet, this test failed to detect significant differences among three independent groups in terms of transparency of use. We modified the wording of the case scenarios in that regards and also altered the format of the manipulation check questions to address this issue.

Moreover, to provide evidence on construct validity and reliability as well as psychometric properties of the instrument, we conducted a series of analysis. This includes examining the measures in terms of item loadings, confirmatory factor analysis, and discriminant and convergent validity (D. W. Straub, 1989). We also carried out multiple reliability indices to ensure acceptable and sufficient construct reliability. As a result we made the necessary changes in terms of item refinement to achieve adequate internal consistency.

Measurements

In this study, we use the self-report questionaries for our main constructs and adopt a 7-point Likert format scale (1 indicating strongly disagree with the statement and 7 means strongly agree). Through two pilot studies, we examined the psychometric properties of the measures. The final items measuring our constructs used in the survey are presented in Appendix B. Here we discuss the primary source of these scales.

Primary and Secondary Appraisals. We measure perceived opportunity and perceived threat as two distinct constructs using Bala and Venkatesh (2016)'s scale, which is consist of four survey question items for each construct. The primary appraisal's questionnaire of perceived opportunity and perceived threat has been demonstrated to have reliable psychometric properties based on the previous research (Bala & Venkatesh, 2016; Drach-Zahavy & Erez, 2002; B. Major, Richards, Cooper, Cozzarelli, & Zubek, 1998). The perceived controllability was measured by a 4-items scale adopted from previously validated measure by the literature (Bala & Venkatesh, 2016; B. Major et al., 1998).

Personality. We measure individuals' personalities with the big five personality factors. This instrument with a 28-items questionnaire represents individuals' dispositions based on five personality traits: openness, conscientiousness, agreeableness, extraversion, and neuroticism. This scale's validity and reliability is documented in the IS literature (Johnston et al., 2016).

Coping Strategy. A single-item question with a binary choice of problem-focused coping and emotion-focused coping was presented to indicate which of the strategies

would be the most appropriate for the situation due to the scenario. Afterward, we used a list of 4 instances of such strategies to assess the frequency of such strategies or activities that respondents will try to do as a result of the situation.

Job Satisfaction. We took our measure of job satisfaction from an overall job satisfaction scale developed by Brayfield and Rothe (1951). To measure this construct, we use a 5-items scale, and the participants were asked to indicate their general perception of job satisfaction. This scale has been evidenced with high validity and reliability by the previous literature (Judge, Locke, Durham, & Kluger, 1998).

Job Performance. Our measure of job performance was taken from (Janssen & Van Yperen, 2004). In the current study, we modify this 4-items job performance scale as a self-report assessment of in-role job performance. This scale has achieved high reliability in the previous studies (Bala & Venkatesh, 2016).

Job Burnout. We adopt a 9-items scale for this investigation to assess respondents' job burnout introduced as Maslach burnout inventory (Maslach, Jackson, Leiter, Schaufeli, & Schwab, 1986). This repeatedly validated instrument shows to be a reliable measurement instrument for job burnout (Srivastava et al., 2015).

Demographic Variables. We include professional experience as a plausible factor affecting job outcomes and measure it with one item asking the respondents to report their job experience in years. Further, education is measured by one item asking what the highest level of education achieved so far is. Additionally, we include demographics variables such as gender, age, ethnicity, and income status to understand better and describe the research sample.

DATA ANALYSIS AND RESULTS

Data Cleaning and Sample

Contained within our experimental survey approach to test the research model, we collect responses from two sources. As outlined earlier, these two sources are FIU students from the college of business and Amazon Mechanical Turk. Overall we collected 403 data cases, 126 FIU students, and 277 MTurk workers. In addition, through a careful screening that we delineated in previous discussions, 163 data cases were removed to increase the reliability and quality of the data. The data elimination could be due to one or more reasons, including; incomplete responses, invalid random ID, failure to respond to attention check questions, speeding through the survey, or being exposed to the study and research material before the final data collection.

From the student group, we drop 32 cases for incomplete responses. Also, we excluded five students as they have been exposed to the research material before the final data collection. We filter 19 observations due to lack of attention and invalid response to attention questions. We implemented randomly presented attention questions to confirm that the respondents were reading and understanding the questions correctly. We removed three observations for speeding through the survey. We tracked the time spent completing the surveys on Qualtrics to verify the inserted response's attention for the task and rejected any assignments that were taken extremely fast compared to our pilot tests. Finally, we excluded 16 participants who solely answered a fraction of survey questionaries in the first 30 minutes, representing a lack of enough engagement.

For the MTurk respondents, we received survey responses from 277 participants. We drop 18 incomplete responses. Further, we eliminate 17 observations due to lack of attention and invalid response to attention questions. In terms of time criteria, we removed 47 cases due to speeding through the survey. Finally, we rejected six responses for invalid survey random ID codes. Lack of a valid random ID code represents missing data entry.

Demographics of the Survey Sample

As shown in Table 5, the characteristics of the survey respondents represent a wide range of different demographic groups. Analysis of the sample demographics shows that nearly 65% of respondents being men. In terms of age, most of the sample is 26 years old and above. Almost 50% of the respondents reported themselves as Caucasian, 24% selected African American, and more than 18% identified themselves as Hispanic or Latino. Among all respondents, nearly less than half have a bachelor's degree, followed by 35%, indicating that they hold a master's degree or MBA. These two education groups are closely associated with the framing of our survey experimental design. In terms of professional experience, only 7% reported that they have no professional experience; 25% reported up to five years of professional experience, and most have between six to ten years of professional experience (35%). Most of the respondents reported their earnings as middle-income households, as 28% earned between $40,000 and $59,999, followed by 23% said their annual household income between $60,000 and $79,999.

Table 5 Demographics of the Sample						
	Student		MTurk		Total	
Gender						
Male	30	59%	125	66%	155	65%
Female	21	41%	64	34%	85	35%
Age Group						
Age 18-25	26	51%	16	8%	42	18%
Age 26-40	20	39%	125	66%	145	60%
Age 41-59	3	6%	41	22%	44	18%
Age 60+	2	4%	7	4%	9	4%
Ethnicity Group						
African American	4	8%	53	28%	57	24%
American Indian or Alaska Native	0	-	3	2%	3	1%
Asian	4	8%	8	4%	12	5%
Native Hawaiian or Pacific Islander	1	2%	0	-	1	0%
Caucasian	10	20%	110	58%	120	50%
Hispanic or Latino	29	57%	15	8%	44	18%
Middle Eastern	3	6%	0	-	3	1%
Education Group						
Highschool	2	4%	9	5%	11	5%
Some College	8	16%	9	5%	17	7%
Bachelor's Degree	19	37%	93	49%	112	47%
Some Graduate School Courses	3	6%	8	4%	11	5%
Master's Degree or MBA	17	33%	67	35%	84	35%
Doctoral Degree	2	4%	3	2%	5	2%
Professional Experience						
No Professional Experience	13	25%	4	2%	17	7%
Up to 5 Years	21	41%	38	20%	59	25%
Between 6 and 10 Years	7	14%	78	41%	85	35%
Between 11 and 15 Years	4	8%	36	19%	40	17%
Between 16 and 20 Years	1	2%	23	12%	24	10%
Above 20 Years	5	10%	10	5%	15	6%
Income Status						
Less than $20,000	10	20%	12	6%	22	9%
Between $20,000 and $39,999	11	22%	30	16%	41	17%
Between $40,000 and $59,999	7	14%	60	32%	67	28%
Between $60,000 and $79,999	4	8%	52	28%	56	23%
Between $80,000 and $99,999	4	8%	25	13%	29	12%
Between $100,000 and $119,999	3	6%	7	4%	10	4%
Greater than $120,000	12	24%	3	2%	15	6%
Total	51		189		240	

Homogeneity of Variances

We investigate the assumption of homogeneity of variance for two sample groups to establish that there are no significant differences in variances (standard deviations) of these two populations. By investigating the equality of variances, we offer evidence that these two sampling approaches mainly to provide the same properties among samples. Therefore, comparing the two groups equal variances on different aspects such as personality traits and demographics variables, including age, gender, ethnicity, education, professional experience, and income status, enables us to merge data from two sampling approaches. Evidence provided in Table 6 and Table 7 shows that there are no significant differences across subjects from the student sample and subjects from the MTurk sample. We draw a random sample without replacement from Amazon Mturk participants (51 observations) to perform equal sample sizes Levene's test (Levene, 1960). While the original test solely proposes the use of mean, later development recommended using the median test for asymmetric data due to the fact that they tend to provide more reliable and accurate results (Brown & Forsythe, 1974; Conover, Johnson, & Johnson, 1981).

By showing equal variances between the two samples, based on the test statistics from Levene's analysis centered at the mean or median, we show homogeneity of variance among populations. When we analyzed the two samples, the test statistics exhibit homogeneity of variances in nine out of eleven variables. In terms of the test statistics, all personality traits represent homogeneity of variances. These are the test statistics for each personality trait: agreeableness Levene's test statistics are $W0 = 0.2523$ and $W50 = 0.0826$ and the corresponding p-values are 0.6165 and 0.7742; conscientiousness

Levene's test statistics are W0 = 1.3865 and W50 = 1.6145 and the corresponding p-values are 0.2417 and 0.2067; neuroticism Levene's test statistics are W0 = 1.0912 and W50 = 0.7527 and the corresponding p-values are 0.2987 and 0.3876; openness to experience Levene's test statistics are W0 = 1.3397 and W50 = 1.3714 and the corresponding p-values are 0.2498 and 0.2443; and finally extraversion Levene's test statistics are W0 = 2.0696 and W50 = 1.3895 and the corresponding p-values are 0.1533 and 0.2412. The p-values for each personality trait are not statistically significant (p-value > 0.05), which indicates homogeneity of variances in terms of personality traits among the two samples.

Table 6 Levene's Test for Equal Variances - Personality Traits			
Summary of Levene's Test Statistics for Agreeableness			
Sample Group	Mean	Std. Dev.	freq
Student	28.72549	4.2003735	51
Mturk	27.372549	4.3218551	51
Total	28.04902	4.2945451	102
W0 = 0.25232763	df(1, 100)	Pr > F = 0.61654522	
W50 = 0.08269589	df(1, 100)	Pr > F = 0.77427183	
W10 = 0.16597776	df(1, 100)	Pr > F = 0.68458234	
Summary Levene's Test Statistics for Conscientiousness			
Sample Group	Mean	Std. Dev.	freq
Student	31.313725	3.258774	51
Mturk	28.117647	4.1552235	51
Total	29.715686	4.0476798	102
W0 = 1.3865709	df(1, 100)	Pr > F = 0.24177994	
W50 = 1.6145753	df(1, 100)	Pr > F = 0.206798	
W10 = 1.5517050	df(1, 100)	Pr > F = 0.21579464	
Summary of Levene's Test Statistics for Neuroticism			
Sample Group	Mean	Std. Dev.	freq
Student	20.392157	7.3350622	51
Mturk	21.235294	7.9286524	51
Total	20.813725	7.6115212	102
W0 = 1.09125044	df(1, 100)	Pr > F = 0.29871297	
W50 = 0.75275847	df(1, 100)	Pr > F = 0.38768155	
W10 = 0.90176084	df(1, 100)	Pr > F = 0.34459938	

Summary of Levene's Test Statistics for Openness to Experience			
Sample Group	Mean	Std. Dev.	freq
Student	45.745098	7.4614828	51
Mturk	41.666667	6.6593293	51
Total	43.705882	7.3290258	102
W0 = 1.3397866	df(1, 100)	Pr > F = 0.24982887	
W50 = 1.3714984	df(1, 100)	Pr > F = 0.24433761	
W10 = 1.3808050	df(1, 100)	Pr > F = 0.24275444	
Summary of Levene's Test Statistics for Extraversion			
Sample Group	Mean	Std. Dev.	freq
Student	26.705882	7.0803789	51
Mturk	25.686275	6.0843741	51
Total	26.196078	6.5883774	102
W0 = 2.0696972	df(1, 100)	Pr > F = 0.15337388	
W50 = 1.3895289	df(1, 100)	Pr > F = 0.24128187	
W10 = 1.4327514	df(1, 100)	Pr > F = 0.23414586	

Further, we test the homogeneity of variances for demographic variables across the two samples. We test the null hypotheses that the population variances are equal in terms of age, gender, ethnicity, education, professional experience, and income status. Table 7 shows the test statistics for each demographic variables in terms of the test statistics based on mean and median: age Levene's test statistics are $W0 = 5.2881$ and $W50 = 4.8743$ and the corresponding p-values are 0.0235 and 0.0295; gender Levene's test statistics is $W0 = W50 = 0.0$ and the corresponding p-value is 1; ethnicity Levene's test statistics are $W0 = 9.8897$ and $W50 = 1.6191$ and the corresponding p-values are 0.0021 and 0.2061; education Levene's test statistics are $W0 = 3.78314$ and $W50 = 1.8187$ and the corresponding p-values are 0.05457 and 0.1805; professional experience Levene's test statistics are $W0 = 0.5415$ and $W50 = 1.1310$ and the corresponding p-values are 0.4635 and 0.7180; and household income status Levene's test statistics are $W0 = 35.5278$ and $W50 = 19.0142$ and the corresponding p-value is 0.0000. The results show that the p-value for gender, ethnicity, education, and professional experience are

statistically insignificant (p-value > 0.05), which indicates homogeneity of variances in terms of these demographic characteristics among the two samples. Yet, the test statistics reject the null hypothesis of equality of variances in age and household income status. It is important to note that we are not conceptualizing a direct causal relationship among age and household income status on the dependent variables. Rather, we include these demographic variables for the purpose of comparability of the results with other studies in the literature in terms of sample characteristics. Therefore, with overwhelming evidence of homogeneity of variances among the two samples, we will merge these two samples for the hypotheses testing analysis.

Table 7 Levene's Test for Equal Variances - Demographic Variables		
Summary of Levene's Test Statistics for Age		
Sample Group	Mean	Std. Dev.	freq
Student	0.62745098	0.77358346	51
Mturk	1.2941176	0.5759902	51
Total	0.96078431	0.75677231	102
W0 = 5.2881041	df(1, 100)	Pr > F = 0.02355049
W50 = 4.8743501	df(1, 100)	Pr > F = 0.02954392
W10 = 5.1875658	df(1, 100)	Pr > F = 0.02487778
Summary of Levene's Test Statistics for Gender		
Sample Group	Mean	Std. Dev.	freq
Student	0.41176471	0.49705012	51
Mturk	0.41176471	0.49705012	51
Total	0.41176471	0.49458336	102
W0 = 0.0000000	df(1, 100)	Pr > F = 01
W50 = 0.0000000	df(1, 100)	Pr > F = 01
W10 = 0.0000000	df(1, 100)	Pr > F = 01
Summary of Levene's Test Statistics for Ethnicity		
Sample Group	Mean	Std. Dev.	freq
Student	4.1960784	1.5494465	51
Mturk	2.7843137	1.8581036	51
Total	3.4901961	1.844151	102
W0 = 9.8897664	df(1, 100)	Pr > F = 0.00218877
W50 = 1.6191805	df(1, 100)	Pr > F = 0.20615686
W10 = 13.2338156	df(1, 100)	Pr > F = 0.00043696

Summary of Levene's Test Statistics for Education		
Sample Group	Mean	Std. Dev.	freq
Student	2.6078431	1.3126832	51
Mturk	2.7058824	1.0448754	51
Total	2.6568627	1.1815001	102
W0 = 3.7831430	df(1, 100)	Pr > F = 0.05457988
W50 = 1.8187688	df(1, 100)	Pr > F = 0.18050624
W10 = 3.2096285	df(1, 100)	Pr > F = 0.07623093
Summary of Levene's Test Statistics for Professional Experience		
Sample Group	Mean	Std. Dev.	freq
Student	1.4901961	1.5016331	51
Mturk	2.4117647	1.2676982	51
Total	1.9509804	1.4581791	102
W0 = 0.54155606	df(1, 100)	Pr > F = 0.46351124
W50 = 0.13106160	df(1, 100)	Pr > F = 0.71809776
W10 = 0.00421236	df(1, 100)	Pr > F = 0.94838104
Summary of Levene's Test Statistics for Income Status		
Sample Group	Mean	Std. Dev.	freq
Student	2.745098	2.2877337	51
Mturk	2.6078431	1.2341545	51
Total	2.6764706	1.8302289	102
W0 = 35.527897	df(1, 100)	Pr > F = 0.00000004
W50 = 19.014299	df(1, 100)	Pr > F = 0.00003155
W10 = 35.399921	df(1, 100)	Pr > F = 0.00000004

Manipulation Checks

We examine the relationship between experimental manipulation scenarios with actual manipulation and check whether the manipulations of IT implementation factors had significant impacts on the individuals' perception of user involvement, management support, training effectiveness, transparency of information, and transparency of use. During the blind pilot study, we recognized that four out of the five variables were adequately manipulated. When we re-examined the data, two procedures were carried out to address this issue. First, we further clarified the case scenario. Second, we changed the

manipulation check question from 7 points Likert-type question to a direct question with

three response cues to becomes as clear as the actual manipulation. To establish evidence

of significant differences across groups, we use the Kruskal-Wallis test. Through the H

statistics, the Kruskal-Wallis test provides evidence on the effects of the scenarios on

individuals' perception of IT implementation characteristics.

Kruskal-Wallis test was carried out as a manipulation check to test the effects of the

scenarios on user's perceived involvement. As shown below in Table 8, the analysis

results indicate a statistically significant effect of the scenarios on user's perceived

involvement. The table indicates that for the Low scenario ($n = 88$), the Neutral scenario

($n = 71$), and the High scenario ($n = 81$). The test statistics show a statistically significant

difference in perception of user involvement between the three groups, $\chi^2(2) =$

24.735, and $p = 0.0001$. Further, the analysis results indicate a statistically significant

effect of the scenarios on management support. Thus, the table shows that the test

statistics are statistically significant; we reject the null hypothesis, and the perception of

management support is different between the three groups, $\chi^2(2) = 24.919$, and $p =$

0.0001.

Additionally, Table 8 indicates that the scenarios have a significant effect on the

perception of training effectiveness. The p-value is less than the significant level. Hence,

by rejecting the null hypothesis, we can conclude that the group medians are different.

The results of the Kruskal-Wallis test for training effectiveness indicate $\chi^2(2) =$

20.272, and $p = 0.0001$. We could observe the pattern of results for perceptions of

transparency of information and transparency of use. Our findings indicate a statistically

significant effect of the scenarios on these two IT implementation factors. Consequently,

the table shows that the test statistics are statistically significant; we reject the null

hypothesis, and the perception of transparency of information ($\chi^2(2) = 20.477$, and $p = 0.0001$), and the perception of transparency of use ($\chi^2(2) = 22.773$, and $p = 0.0001$) are

different between the three experimental treatment groups.

Table 8 Kruskal-Wallis Manipulation Checks - Implementation Characteristics		
Kruskal-Wallis Equality-of-Populations Rank Test for User Involvement		
Group	**Obs**	**Rank Sum**
Low	88	8687.50
Neutral	71	8415.00
High	81	11817.50
chi-squared = 19.555 with 2 d.f.		probability = 0.0001
chi-squared with ties = 24.735 with 2 d.f.		probability = 0.0001
Kruskal-Wallis equality-of-populations rank test for Management Support		
Group	**Obs**	**Rank Sum**
Low	88	8662.00
Neutral	71	8381.50
High	81	11876.50
chi-squared = 20.448 with 2 d.f.		probability = 0.0001
chi-squared with ties = 24.919 with 2 d.f.		probability = 0.0001
Kruskal-Wallis equality-of-populations rank test for Training Effectiveness		
Group	**Obs**	**Rank Sum**
Low	88	9149.00
Neutral	71	7933.00
High	81	11838.00
chi-squared = 17.178 with 2 d.f.		probability = 0.0001
chi-squared with ties = 20.272 with 2 d.f.		probability = 0.0001
Kruskal-Wallis equality-of-populations rank test for Transparency of Information		
Group	**Obs**	**Rank Sum**
Low	88	8844.50
Neutral	71	8320.00
High	81	11755.50
chi-squared = 17.655 with 2 d.f.		probability = 0.0001
chi-squared with ties = 20.477 with 2 d.f.		probability = 0.0001

Kruskal-Wallis equality-of-populations rank test for Transparency of Use		
Group	Obs	Rank Sum
Low	88	9270.00
Neutral	71	7630.50
High	81	12019.50
chi-squared = 19.766 with 2 d.f.		probability = 0.0001
chi-squared with ties = 22.773 with 2 d.f.		probability = 0.0001

Although these results overwhelmingly provide evidence to support the effect of the manipulations and scenarios on organizational IT implementation characteristics framing; yet, for the hypothesis testing analysis, we will drop any individual observation that did not answer the majority of the manipulation check questions accurately. Thus, this measure would increase the effect of the scenarios on user's perception of organizational IT implementation characteristics.

Measurement Validation

As discussed earlier in the former chapters, this study uses previously validated measures for personality traits, perception of opportunity, perception of threat, perception of controllability, and job outcomes, including job performance, job satisfaction, and job burnout. The results of our analysis indicate that all measures reached satisfactory construct validity, which is in line with former pilot studies' results that suggested measurement validity and reliability for our constructs. To formalize our measurement instruments and validate the factor loadings, we carried out confirmatory factor analysis (CFA). This method is suited for our study to provide further evidence on factor loading, mainly because all of our latent constructs are well understood and previously validated in the literature. The analysis results suggest that all observed variables are significant at the 0.001 level and sufficiently loading on the specified constructs.

Additionally, following common practices in the IS literature, we are assessing the

reliability and validity of the constructs (Nunnally, 1994; D. W. Straub, 1989). Table 9

provides evidence on internal consistency with reliability measures of Cronbach's α

(Cronbach, 1951) and the composite reliability ρ_c (Werts, Linn, & Jöreskog, 1974).

While Cronbach's α reliability estimate is associated with the indicator intercorrelations

and assumes that all items are equally reliable, the composite reliability weighs in

different loadings for each indicator. The table below shows that for all constructs except

job satisfaction, the Cronbach's α and composite reliability ρ_c are higher than the

suggested threshold for construct internal consistency reliability of latent variables

(Henseler, Ringle, & Sinkovics, 2009). We used an overall measure of job satisfaction

scale with five items that two of them were reversed coded for job satisfaction. These two

reversed coded indicators did not load appropriately and substantially decreased the

reliability of the construct. Following the recommended procedures, we eliminated these

two indicators with low reliability and factor loading. These remedies helped to increase

the reliability measure for job satisfaction above 0.5. Although we provide some

measures of construct reliability for job satisfaction, we will be vigilant and keep

precautious while interpreting the results of analysis related to this organizational

outcome.

Table 9 Constructs Reliability

Construct	# of Indicators	Cronbach's alpha α	Composite reliability ρ_c
Agreeableness	5	0.7311	0.739
Conscientiousness	5	0.7705	0.771
Neuroticism	5	0.9011	0.904
Openness to Experience	8	0.8698	0.872
Extraversion	5	0.8614	0.862
Perc Opportunity	4	0.8889	0.889
Perc Threat	4	0.9185	0.919
Perc Controllability	4	0.8769	0.878
Job Performance	4	0.8231	0.823
Job Satisfaction	3	0.5634	0.586
Job Burnout	9	0.9524	0.953

Hypotheses Testing

Results of Seemingly Unrelated Regressions for Perceived Opportunity, Perceived Threat, and Perceived Controllability

To investigate the effect of IT implementation characteristics and individuals' dispossession, such as the big five personality traits, on the primary and secondary appraisals, we employ Seemingly Unrelated Regressions (SUR) models. SUR models are particularly suitable when the nature of the analysis calls for explaining the whole set of dependent variables estimation coefficients efficiently (Zellner, 1962). This estimation strategy is notably more efficient than the standard OLS analysis by simultaneously estimating all equations by statistically linking the equations with the association of the random error components. The SUR model justifies the jointness of the estimation strategies by the structure of the covariance matrix of the associated disturbances, having

in mind that our model solely contains exogenous regressors. This model specification concerns the jointness of the equations, which avoids biased estimations and provides further information that is an addition to the results and outcomes produced by a set of individually assessed equations (Greene, 2003).

We carry out a three-stage hierarchical SUR model to test the hypotheses, which is among the common estimation strategies adopted by other IS scholars in this domain (Maruping, Venkatesh, & Agarwal, 2009; Srivastava et al., 2015). First, we estimate the effect of the control variables, including age, gender, ethnicity, education, professional experience, and income status, on the perception of opportunity, perception of threat, and perception of controllability. Then, we included the main direct effect of IT implementation characteristics and personality in the second step. Finally, we introduced the interaction terms as well in the third step to estimate the moderation effects.

Table 10 presents the results of the analysis for the perception of opportunity. The results for Model 1 show the effect of only the control variables estimation strategy. Based on the results, control variables, including age, gender, ethnicity, education, professional experience, and income status, can explain 28.4% of the variance in perception of opportunity. Such a high R^2 indicates appropriate control variable selection for our research model. Due to the fact that all of the control variables are categorical variables, we observe multiple coefficients for each variable. Yet, among these variables, Asian ethnicity ($\beta = 5.162, p < 0.05$), up to 5 years of work experience ($\beta = -4.230, p < 0.05$), and income status greater than \$120,000 ($\beta = -5.584, p < 0.05$) have statistically a significant effects on the perception of opportunity.

Table 10 Results of Seemingly Unrelated Regressions for Perceived Opportunity

Control variable	Model 1 Control variable β	Se	Model 2 Main Effect β	Se	Model 3 Interaction Effect β	Se
Female	−1.289	(1.182)	−1.194	(0.820)	−0.696	(0.685)
Age 26-40	0.654	(1.944)	0.290	(1.701)	0.296	(0.962)
Age 41-59	2.737	(2.357)	0.743	(1.907)	1.391	(1.310)
Age 60+	2.033	(2.182)	0.127	(2.629)	1.052	(2.043)
American Indian or Alaska Native	−1.456	(2.162)	5.953**	(2.081)	3.391	(2.572)
Asian	5.162*	(2.520)	8.629***	(1.961)	5.198***	(1.458)
Native Hawaiian or Pacific Islander	2.490	(2.001)	3.724	(2.253)	−2.963*	(1.443)
Caucasian	−0.056	(1.712)	2.199*	(1.022)	0.639	(0.866)
Hispanic or Latino	−1.030	(1.992)	0.677	(1.154)	−0.118	(0.913)
Some College	0.924	(4.243)	2.252	(2.769)	1.123	(1.823)
Bachelor's Degree	4.700	(3.830)	2.069	(2.215)	2.056	(1.785)
Some graduate school courses	5.018	(4.172)	4.050	(2.459)	2.975	(2.095)
Master's Degree or MBA	4.304	(4.168)	3.094	(2.564)	2.123	(1.968)
Doctoral Degree	−2.096	(5.478)	−3.600	(3.632)	−3.977	(2.663)
Up to 5 years' Work Exp	−4.230*	(2.017)	−2.702	(1.665)	−2.328	(1.251)
Between 6 and 10 years' Work Exp	−1.350	(2.065)	−1.497	(1.786)	−1.382	(1.247)
Between 11 and 15 years' Work Exp	0.0856	(2.420)	−0.952	(2.068)	0.252	(1.525)
Between 16 and 20 years' Work Exp	−0.0485	(2.277)	−0.624	(1.901)	0.407	(1.437)
Above 20 years	−1.864	(2.953)	−2.307	(2.613)	−2.232	(1.926)
Between $20,000 and $39,999	−0.889	(1.726)	−0.390	(1.389)	−1.774	(1.154)
Between $40,000 and $59,999	−0.438	(1.607)	1.089	(1.365)	−0.291	(1.017)
Between $60,000 and $79,999	−1.020	(1.878)	0.353	(1.312)	0.230	(1.007)
Between $80,000 and $99,999	−0.809	(1.873)	0.398	(1.673)	−0.211	(1.258)
Between $100,000 and $119,999	−5.584	(3.929)	−3.629	(2.767)	−5.029*	(1.957)

Greater than $120,000	-5.584*	(2.681)	-2.400	(2.303)	-3.223	(2.021)
Main Effect						
IT Implementation Group			3.605***	(0.520)	-2.211	(3.691)
Agreeableness			0.247	(0.184)	0.555**	(0.195)
Conscientiousness			0.0347	(0.194)	-0.728***	(0.207)
Neuroticism			0.00954	(0.0423)	0.233**	(0.0807)
Openness			-0.0357	(0.0841)	-0.0154	(0.0899)
Extraversion			0.276*	(0.111)	0.358***	(0.0888)
Interaction Effect						
IT IMPLMNT High # Agreeableness					-0.326	(0.228)
IT IMPLMNT High # Conscientiousness					1.124***	(0.235)
IT IMPLMNT High # Neuroticism					-0.310***	(0.0867)
IT IMPLMNT High # Openness					0.112	(0.104)
IT IMPLMNT High # Extraversion					-0.466***	(0.126)
Constant	19.32***	(4.580)	-4.167	(4.768)	11.02	(10.67)
R-squared	0.284		0.661		0.791	
Adjusted R-squared	0.060		0.519		0.682	

N = 106, * p<0.05, ** p<0.01, *** p<0.001, Standard errors in parentheses

In the next step, we include the main direct effect of IT implementation and also the big five personality variables in our model specification. Model 2 in Table 10 shows a considerable explanatory power compare to Model 1, such that the combination of control variables and the direct effect of IT implementation and personality variables explain 66.1% of the variance in perception of opportunity. The adjusted R^2 is 51.9% which represents a significant increase in explained variance compare to Model 1. Furthermore, the main IT implementation effect for the high group is statistically significant and differs from zero compare to the low group ($\beta = 3.605, p < 0.001$). This effect confirms the direct impact of IT implementation characteristics on the perceived opportunity and lays the ground for investigating our hypotheses to test the moderation effect of personality variables. Further, we observe that extraversion has a direct positive effect on the perception of opportunity ($\beta = 0.276, p < 0.05$).

Finally, by incorporation the interaction terms, we test the moderating effect of personality variables on the relationship between IT implementation characteristics and individuals' perceived opportunity (Model 3 in Table 10). Our results show that conscientiousness significantly moderates the main effect of IT implementation characteristics on the perceived opportunity such that the relationship becomes stronger when the conscientiousness personality trait is high ($\beta = 1.124, p < 0.001$). Additionally, we found supportive evidence for the moderation effect of neuroticism ($\beta = -0.310, p < 0.001$). In particular, neuroticism has a negative moderation effect on the relationship between IT implementation characteristics and perceived opportunity, such that the relationship becomes weaker when neuroticism is high. In general, Model 3

explains 79.1% (or 68.2% for adjusted R-squared) of the variance in perceived

opportunity. Regarding the change in gaining higher explanatory power, we observe a

13% change in R^2 (or 16.3% change in adjusted R-squared). Overall, the results

presented in Table 10 offer supportive evidence for H2a and H5a.

Results of Seemingly Unrelated Regressions for Perceived Threat

Table 11 shows the results of seemingly unrelated regressions for perceived threat in

three different model specifications. In the first step, we analyze the effect of age, gender,

ethnicity, education, professional experience, and income status on the perception of

threat. Based on reported R^2, these control variables together explain 21.2% of the

variance in perceived threat. Among our control variables for Model 1, age in the age

group 41-59 ($\beta = 6.563, p < 0.05$), ethnicity in Native Hawaiian ($\beta = -8.974, p <$

0.05), and work experience in above 20 years of experience ($\beta = -7.186, p < 0.05$)

significantly affect perceived threat.

The study presents the main effect analysis of IT implementation and the big five

personality variables in Table 11 Model 2. While the R^2 shows that this model

specification illustrates 49.1% of perceived threat's variance, the change in R^2 between

Model 1 and Model 2 is 27.9% and indicates a significant increase (reported adjusted R-

squared is 27.8%). The results of this analysis provide supporting evidence for the direct

effect of IT implementation experimental group ($\beta = -3.019, p < 0.001$), which

validates the underlying assumption for the inverse relationship among IT

implementation characteristics and employees' perceived threat of IT change. Further, the

coefficient for conscientiousness is negative and significant ($\beta = -0.666, p < 0.001$).

Also, for Neuroticism, its coefficient of interest is positive and significant ($\beta = 0.326, p < 0.001$).

Finally, on Model specification 3 in Table 11, the results show that neuroticism significantly moderates the relationship between IT implementation characteristics and individuals' perception of threat ($\beta = 0.306, p < 0.05$). These outcomes imply that the IT implementation effect on perceived threat becomes stronger when neuroticism is high and weaker when neuroticism is low. Overall, Model 3 explains 59.6% of the variance in perceived threat, and in terms of change in gaining higher explanatory power, we observe a 10.5% change in R^2 (or 10.7% change in adjusted R-squared). Lastly, the results presented in Table 10 offer supportive evidence for H5b.

Table 11 Results of Seemingly Unrelated Regressions for Perceived Threat

Control variable	Model 1 Control variable β	Se	Model 2 Main Effect β	Se	Model 3 Interaction Effect β	Se
Female	−0.626	(1.373)	0.304	(1.078)	−0.614	(0.900)
Age 26-40	4.039	(2.408)	3.186	(2.172)	3.667*	(1.694)
Age 41-59	6.563*	(2.928)	5.196	(2.697)	4.958*	(2.195)
Age 60+	5.842	(3.474)	2.516	(2.910)	2.010	(2.594)
American Indian or Alaska Native	−3.900	(2.203)	−7.657***	(1.963)	−5.094**	(1.713)
Asian	−1.950	(4.616)	−2.604	(2.608)	1.349	(2.037)
Native Hawaiian or Pacific Islander	−8.974*	(3.489)	−2.230	(3.711)	6.175*	(2.917)
Caucasian	−0.146	(1.835)	−2.294	(1.468)	−0.520	(1.468)
Hispanic or Latino	−3.274	(2.070)	−4.023	(2.177)	−2.568	(2.219)
Some College	7.704	(4.928)	0.130	(4.824)	0.453	(3.709)
Bachelor's Degree	3.783	(4.576)	−1.820	(4.445)	−2.852	(3.940)
Some graduate school courses	3.970	(5.247)	−5.152	(4.895)	−4.766	(4.694)
Master's Degree or MBA	4.879	(4.792)	−2.754	(4.589)	−2.872	(4.236)
Doctoral Degree	2.472	(7.225)	−3.201	(5.229)	−3.816	(4.509)
Up to 5 years' Work Exp	1.943	(2.545)	2.602	(2.102)	3.139	(1.959)
Between 6 and 10 years' Work Exp	−0.787	(2.767)	0.940	(2.517)	1.518	(2.186)
Between 11 and 15 years' Work Exp	−0.693	(3.285)	1.295	(2.905)	−0.348	(2.641)
Between 16 and 20 years' Work Exp	−1.898	(3.570)	1.285	(2.853)	1.058	(2.475)
Above 20 years	−7.186*	(3.374)	0.592	(2.659)	0.592	(2.016)
Between $20,000 and $39,999	−0.548	(2.487)	0.521	(2.286)	2.064	(2.250)
Between $40,000 and $59,999	1.633	(2.352)	0.480	(2.056)	1.030	(1.853)
Between $60,000 and $79,999	1.791	(2.453)	2.779	(2.329)	2.094	(2.271)
Between $80,000 and $99,999	0.0773	(3.242)	0.00780	(2.717)	0.00393	(2.441)
Between $100,000 and $119,999	−3.488	(3.949)	−1.367	(2.774)	−0.224	(2.277)

Greater than $120,000	-2.065	(2.805)	-2.425	(2.259)	-2.184	(1.940)
Main Effect						
IT Implementation Group			-3.019***	(0.638)	4.861	(4.827)
Agreeableness			0.248	(0.221)	0.446	(0.281)
Conscientiousness			-0.666**	(0.227)	-0.182	(0.349)
Neuroticism			0.326***	(0.0791)	0.140	(0.108)
Openness			0.254	(0.149)	0.258	(0.166)
Extraversion			0.0832	(0.180)	-0.126	(0.138)
Interaction Effect						
IT IMPLMNT High # Agreeableness					-0.598	(0.287)
IT IMPLMNT High # Conscientiousness					-0.632	(0.376)
IT IMPLMNT High # Neuroticism					0.306*	(0.139)
IT IMPLMNT High # Openness					-0.0826	(0.217)
IT IMPLMNT High # Extraversion					0.707**	(0.232)
Constant	9.861	(5.752)	15.75	(8.509)	-5.564	(15.22)
R-squared	0.212		0.491		0.596	
Adjusted R-squared	0.035		0.278		0.385	

N = 106, * p<0.05, ** p<0.01, *** p<0.001, Standard errors in parentheses

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Results of Seemingly Unrelated Regressions for Perceived Controllability

Table 12 presents the results of seemingly unrelated regressions for perceived controllability in three different model specifications. In Model 1, we continue to capture the effect of our control variables. As can be seen, age, gender, ethnicity, education, professional experience, and income status explain 28.8% of the variance of perceived control. In addition, we observe that two coefficients relate to ethnicity variables are statistically significant; Asian ethnicity ($\beta = 6.761, p < 0.01$), and Native Hawaiian ethnicity ($\beta = 6.569, p < 0.001$) have a statistically significant effect on the perception of controllability.

Additionally, Model 2 shows the main effect of IT implementation characteristics and personality. As we expected, the direct effect of IT implementation characteristics on perceived controllability was statistically significant and positive ($\beta = 3.253, p < 0.001$). Also, extroversion has a direct positive influence on the perception of controllability ($\beta = 0.306, p < 0.01$). In total, this model explains 64.9% of the variance of perception of controllability (50.1% for adjusted R-squared).

Lastly, Model 3 demonstrates the interaction effect of IT implementation factors and personality traits. While the model as a whole explains 75.5% of the variance in perceived controllability (62.8% reported adjusted R-squared), we found supportive evidence for two of our hypotheses; H2c and H5c. The personality trait of conscientiousness positively moderates the relationship between IT implementation and perceived controllability. The relationship becomes stronger when conscientiousness is high and becomes weaker when conscientiousness is low ($\beta = 1.013, p < 0.001$).

Table 12 Results of Seemingly Unrelated Regressions for Perceived Controllability						
	Model 1 Control variable		Model 2 Main Effect		Model 3 Interaction Effect	
Control variable	β	Se	β	Se	β	Se
Female	−1.031	(1.082)	−0.955	(0.783)	−0.510	(0.667)
Age 26-40	−0.294	(1.831)	0.132	(1.869)	0.114	(1.333)
Age 41-59	1.957	(2.135)	0.558	(1.997)	1.061	(1.529)
Age 60+	1.275	(1.990)	0.232	(2.231)	1.000	(1.854)
American Indian or Alaska Native	−2.368	(1.604)	4.624**	(1.521)	2.357	(1.996)
Asian	6.761**	(2.127)	10.80***	(1.771)	8.072***	(1.336)
Native Hawaiian or Pacific Islander	6.569***	(1.812)	8.185***	(2.097)	2.576*	(1.311)
Caucasian	−0.665	(1.473)	1.202	(0.868)	−0.0858	(0.753)
Hispanic or Latino	0.502	(1.682)	1.479	(1.033)	0.870	(1.017)
Some College	0.574	(4.235)	1.362	(2.562)	0.526	(1.912)
Bachelor's Degree	2.819	(3.862)	0.274	(2.172)	0.346	(1.938)
Some graduate school courses	2.105	(4.564)	0.641	(2.546)	−0.203	(2.586)
Master's Degree or MBA	3.681	(4.120)	2.100	(2.470)	1.439	(2.062)
Doctoral Degree	−7.732	(5.052)	−10.85**	(3.321)	−10.95***	(2.575)
Up to 5 years' Work Exp	−3.309	(2.111)	−2.194	(1.655)	−1.948	(1.353)
Between 6 and 10 years' Work Exp	−1.126	(2.170)	−1.908	(1.629)	−1.823	(1.369)
Between 11 and 15 years' Work Exp	0.667	(2.474)	−0.761	(1.906)	0.315	(1.629)
Between 16 and 20 years' Work Exp	0.236	(2.382)	−0.904	(1.833)	−0.0637	(1.495)
Above 20 years	−0.515	(2.836)	−1.069	(2.325)	−1.053	(1.874)
Between $20,000 and $39,999	0.831	(1.711)	1.515	(1.170)	0.344	(1.057)
Between $40,000 and $59,999	1.114	(1.689)	2.605*	(1.309)	1.457	(1.021)
Between $60,000 and $79,999	−0.754	(1.760)	0.534	(1.254)	0.467	(1.127)
Between $80,000 and $99,999	0.104	(2.001)	1.057	(1.609)	0.607	(1.355)
Between $100,000 and $119,999	−3.284	(3.725)	−1.139	(2.832)	−2.228	(2.193)

Greater than $120,000	−4.424	(2.314)	−1.462	(2.268)	−2.107	(2.002)
Main Effect						
IT Implementation Group			3.253***	(0.487)	−3.046	(4.287)
Agreeableness			0.0319	(0.147)	0.258	(0.201)
Conscientiousness			0.298	(0.169)	−0.395	(0.250)
Neuroticism			0.0642	(0.0415)	0.235**	(0.0812)
Openness			−0.102	(0.0786)	−0.0641	(0.104)
Extraversion			0.306**	(0.108)	0.369**	(0.112)
Interaction Effect						
IT IMPLMNT High # Agreeableness					−0.220	(0.235)
IT IMPLMNT High # Conscientiousness					1.013***	(0.264)
IT IMPLMNT High # Neuroticism					−0.237**	(0.0837)
IT IMPLMNT High # Openness					0.0547	(0.112)
IT IMPLMNT High # Extraversion					−0.377**	(0.132)
Constant	19.93***	(4.585)	−3.160	(4.767)	13.00	(12.84)
R-squared	0.288		0.649		0.755	
Adjusted R-squared	0.065		0.501		0.628	

N = 106, * p<0.05, ** p<0.01, *** p<0.001, Standard errors in parentheses

Additionally, based on these results in Table 12, we could observe a negative moderation effect for neuroticism. This result emphasizes an important role that the personality trait of neuroticism plays in the relationship between IT implementation and perceived controllability, such that the relationship becomes weaker when neuroticism is high, and it becomes stronger when neuroticism is low.

Results of Logistic Regression Models for Coping Strategies

In the next step, we investigate the effect of individuals' primary and secondary appraisals on the choice of coping strategies towards new IT. Our dependent variable is a categorical outcome, with the value of zero for when individuals find problem-focused coping strategies the most appropriate choice for their situation, and takes the value of one for emotion-focused coping strategy. Consequently, this study uses Logit and Probit models to evaluate how the primary and secondary appraisals affect the likelihood of selecting a coping strategy. For our categorical or binary choice of coping strategies, where the probability of the individual's preferences towards these strategies is an estimate, logistic and probit models are fitting appropriately and usually yield similar results (Agresti, 2003; Hosmer Jr, Lemeshow, & Sturdivant, 2013). Table 13 shows the results of logistic and probit regression models for individuals' coping strategies based on their perception of opportunity, threat, and controllability over the consequences of IT change.

Table 13 Results of Logistic and Probit Regression Models for Coping Strategies		
Coping Strategies	Model 1	Model 2
	Logit Model	Probit Model
Perceived Opportunity	0.0161	0.0075
	(0.21)	(0.17)
Perceived Threat	0.151***	0.0874***
	(3.93)	(4.10)
Perceived Controllability	-0.029	-0.0148
	(0.37)	(0.32)
_cons	-3.526**	-2.063**
	(-3.08)	(-3.09)

N = 146, * p<0.05, ** p<0.01, *** p<0.001, t statistics in parentheses

As can be inferred from Table 13, the results in Model 1 show that among individuals coping with the new IT change, having a higher perception of threat increases the log odds of preference of emotion-focused coping strategies by 0.151, $p < 0.001$. Thus, these results suggest that individuals with a higher perceived threat are 1.624 times more likely to select emotion-focused coping strategy. Additionally, Model 2 for probit estimation strategy shows that the threat coefficient is positive and statistically significant, attesting to the direct effect of perceived threat on log odds of emotion-focused coping strategy ($Coef. 0.0874, p < 0.001$). On the other hand, the coefficient of interest for the perceived opportunity and perceived controllability are not significant. Together, these results suggest that individuals' preference for coping strategies is mainly driven by threat perception; and those who evaluate the situation as more threatening will more likely select emotion-focused coping strategies to regulate their negative and stressful emotions; making the situation better by lessening emotional distress associated with the situation.

In this study, we use the logit model to estimate the probability of individuals' selection of instances of emotion-focused and problem-focused coping strategies within each group to manage the situation. As we discussed earlier, the problem-focused IT adaptation is associated with coping strategies like (i) adjusting personal work habits and tasks to adjust own to use the new IT as its features require, (ii) fixing the IT to find workarounds and techniques to work with the new system, (iii) employees efforts towards seeking instrumental support and restraining until a solution is available for IT-related problems or adapting work by modifying procedures; and/or (ix) restraining and putting effort toward waiting for the IT provider's system solution for issues caused by the new IT. Table 14 represents the results of this model specification for individuals' selection of PFC strategies based on their primary and secondary appraisals.

Table 14 Results of Logit Regression Models for Different PFC Strategies				
	Model 1	Model 2	Model 3	Model 4
Problem-Focused Coping Strategies	Adjusting Own Use	Fixing the IT	Seeking Instrumental Support	Restraining
Perceived Opportunity	−0.0262	0.0336	0.05660	0.0107
	(0.40)	(0.54)	(0.88)	(0.14)
Perceived Threat	−0.104***	−0.115***	−0.0943**	−0.0217
	(3.48)	(3.90)	(3.27)	(0.67)
Perceived Controllability	0.043	−0.0481	0.0083	0.0488
	(0.63)	(0.74)	(0.12)	(0.59)
_cons	0.748	2.115*	−0.215	−2.366
	(0.67)	(2.04)	(0.19)	(1.71)

N = 146, * p<0.05, ** p<0.01, *** p<0.001, t statistics in parentheses

The results presented in Table 14 emphasize the importance of the level of perceived threat by individuals for odd ratio or the likelihood of use of each instance of problem-focused coping strategies. For each model selection, adjusting own use to the IT, fixing

the IT, seeking instrumental support, and restraining the dependent variable would take the value of one when individuals select that strategy as part of activities they will do or will try to do to cope with the situation as a result of new IT implementation, and would take the value of zero otherwise. The negative coefficients for adjusting own use, fixing the IT, and seeking instrumental support indicate that individuals are less likely to find these activities desired while at a higher perceived threat than at the reference level. In other words, it is more likely that individuals embrace these three strategies when the perception of threat towards the new IT is low. As we show in Table 14, there is an inverse relationship between individuals' perceived threat and the log odds or the likelihood of individuals to cope through adjusting their own use to the IT ($Coef. -0.104, p < 0.001$), fixing the IT ($Coef. -0.115, p < 0.001$), and seeking instrumental support ($Coef. -0.0943, p < 0.01$).

Next, we use the logit model to examine the probability of individuals' selection of instances of emotion-focused coping strategies. These strategies are considering the activities that individuals will do (or try to do) as a result of the situation, including (i) accusing and blaming IT/others/oneself for causing the IT-related issues, (ii) avoidance or employees' efforts in downplaying the problem/IT and denying that IT is essential and affects them, (iii) employees online or offline venting and openly expressing negative emotions to others, and/or (ix) looking for sympathy, understanding, encouragement, advice, and moral support from family, friends, and colleagues or from online. The results of this analysis are presented in Table 15.

The positive coefficients for blaming the IT, venting, and seeking emotional support indicate that individuals will more likely find these activities or coping adaptational behavior desire a higher perceived threat than at the reference level. Notably, it is more likely that individuals find these three strategies desired when the perception of threat towards the new IT is high. Table 15 shows that there is a direct positive relationship between individuals' perceived threat and the log odds or the likelihood of individuals coping through blaming the IT ($Coef.$ $0.138, p < 0.05$), venting ($Coef. 0.0969, p < 0.05$), and seeking emotional support ($Coef. 0.133, p < 0.01$). The above argument and results presented in Tables 13, 14, and 15 support our H7a, H7b, and H7c. From a theoretical perspective, this evidence overwhelmingly emphasizes the importance of perceived threat among individuals when coping with an IT change.

Table 15 Results of Logit Regression Models for Different EFC Strategies				
	Model 1	Model 2	Model 3	Model 4
Emotion-Focused Coping Strategies	Blaming the IT	Downplaying the Problem	Venting	Seeking Emotional Support
Perceived Opportunity	−0.0457	−0.0840	0.00694	0.0178
	(0.34)	(0.77)	(0.08)	(0.20)
Perceived Threat	0.138*	0.0676	0.0969*	0.133**
	(2.32)	(1.25)	(2.11)	(2.94)
Perceived Controllability	0.142	0.0405	−0.0731	−0.0492
	(1.01)	(0.35)	(0.80)	(0.55)
_cons	−7.116***	−2.738	−2.264	−3.479**
	(3.33)	(1.69)	(1.71)	(2.66)

N = 146, * p<0.05, ** p<0.01, *** p<0.001, t statistics in parentheses

Results of Seemingly Unrelated Regressions for Job Outcomes

Finally, in Table 16, we present the results of seemingly unrelated regressions for job outcomes. This study investigates the relationship between coping strategies and

adaptational behaviors with three widely used organizational outcomes: job performance, job satisfaction, and job burnout. We conceptualize that problem-focused coping strategies would positively affect job performance and job satisfaction; further, it would have a negative effect on job burnout. Conversely, the emotion-focused coping strategies are anticipated to affect job performance and job satisfaction negatively and would positively affect job burnout. Model 3 shows a significant relationship between individuals' coping strategies and job burnout; job burnout would decrease when individuals adapt to new IT through problem-focused coping strategies. Further, it would increase when individuals adapt to new IT through emotion-focused coping strategies ($\beta = 7.459, p < 0.001$).

Moreover, we found a partial evidence supporting the relationship between individuals' coping strategies and job performance in Model 1 and Model 4. For example, model 4 shows that individuals who adapt to new IT through emotion-focused coping strategies and mainly venting about the change online or offline would have a lower job performance ($\beta = -2.409, p < 0.05$). Additionally, Model 6 suggests that individuals adaption towards new IT through instances of problem-focused coping strategies like adjusting own use to the IT ($\beta = -9.247, p < 0.001$) and seeking instrumental support ($\beta = -4.696, p < 0.05$) would significantly decreases job burnout and increases the sense of accomplishment. Overall, these evidence provide supports for H9a, H9c, H10a, and H10.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Job Performance	**Job Satisfaction**	**Job Burnout**	**Job Performance**	**Job Satisfaction**	**Job Burnout**
Female	0.429	−0.127	−4.828*	0.397	−0.117	−3.086
	(0.635)	(0.392)	(1.999)	(0.611)	(0.400)	(1.899)
Age 26-40	0.990	−0.435	−0.134	0.794	−0.324	1.998
	(0.910)	(0.582)	(3.013)	(0.904)	(0.620)	(2.896)
Age 41-59	1.310	−1.130	7.845*	1.166	−0.742	10.23**
	(1.176)	(0.785)	(3.797)	(1.256)	(0.837)	(3.464)
Age 60+	0.267	−0.173	10.07*	−0.289	−0.173	12.29**
	(1.723)	(0.760)	(4.460)	(1.948)	(0.802)	(3.911)
American Indian or Alaska Native	−1.618	0.0763	3.012	−1.740	−0.630	1.896
	(1.732)	(0.785)	(7.009)	(1.497)	(0.978)	(7.176)
Asian	1.154	1.447	−2.678	1.802	1.772	−6.451
	(1.503)	(1.062)	(4.409)	(1.385)	(1.062)	(4.245)
Native Hawaiian or Pacific Islander	3.749**	−2.695***	−9.579	2.874*	−2.948***	−3.968
	(1.233)	(0.766)	(5.209)	(1.223)	(0.798)	(4.858)
Caucasian	−0.954	−0.184	0.953	−1.265	−0.300	−1.457
	(0.839)	(0.567)	(3.009)	(0.823)	(0.618)	(3.055)
Hispanic or Latino	1.324	0.279	−8.689**	1.065	0.206	−8.965**
	(0.965)	(0.624)	(3.122)	(0.901)	(0.632)	(2.831)
Middle Eastern	0.329	0.190	14.62*	−0.0963	−0.0234	16.65**
	(2.050)	(0.999)	(7.107)	(1.865)	(1.139)	(6.386)
Some College	1.224	0.245	−3.016	1.404	0.370	−6.989
	(1.918)	(1.179)	(6.331)	(1.916)	(1.188)	(5.597)
Bachelor's Degree	0.445	0.965	−0.260	0.744	1.321	−2.163
	(1.586)	(0.680)	(5.944)	(1.512)	(0.720)	(5.423)

Table 16 Results of Seemingly Unrelated Regressions for Job Outcomes

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Some graduate school courses	−0.598	0.777	0.700	−0.0445	1.399	−1.246
	(1.855)	(1.339)	(7.195)	(1.739)	(1.266)	(7.579)
Master's Degree or MBA	−0.630	1.234	1.325	−0.542	1.649	−0.164
	(1.743)	(0.821)	(5.875)	(1.693)	(0.876)	(5.473)
Doctoral Degree	−4.547	−1.431	−2.165	−4.788	−1.055	−0.973
	(4.058)	(2.011)	(7.184)	(3.469)	(1.806)	(7.304)
Up to 5 years' Work Exp	−0.665	−0.248	6.527	−0.323	−0.406	4.933
	(1.047)	(0.921)	(3.921)	(0.982)	(0.963)	(3.527)
Between 6 and 10 years' Work Exp	−0.211	0.368	6.206	0.146	0.247	4.638
	(1.179)	(1.009)	(4.493)	(1.116)	(1.041)	(3.932)
Between 11 and 15 years' Work Exp	0.571	0.324	3.457	1.057	0.162	−0.0994
	(1.351)	(1.128)	(4.739)	(1.318)	(1.203)	(4.416)
Between 16 and 20 years' Work Exp	1.423	0.927	2.852	2.032	0.860	0.208
	(1.336)	(1.077)	(5.058)	(1.305)	(1.130)	(4.734)
Above 20 years	2.083	1.398	−9.157	2.554	1.302	−6.861
	(1.706)	(1.456)	(5.549)	(1.705)	(1.481)	(5.083)
Between $20,000 and $39,999	−1.168	−0.811	4.595	−1.068	−0.931	1.869
	(1.044)	(0.711)	(3.871)	(0.994)	(0.790)	(3.607)
Between $40,000 and $59,999	−2.240*	−1.005	7.025	−2.081	−1.138	4.182
	(1.027)	(0.747)	(3.808)	(1.081)	(0.786)	(3.549)
Between $60,000 and $79,999	−1.903*	−1.163	6.170	−2.132*	−1.552	4.604
	(0.958)	(0.743)	(3.829)	(1.012)	(0.883)	(3.824)
Between $80,000 and $99,999	−0.214	−0.140	2.561	−0.257	−0.437	2.057
	(1.279)	(0.863)	(4.734)	(1.268)	(0.914)	(4.615)
Between $100,000 and $119,999	−0.718	−0.326	3.595	−0.391	−0.219	1.495
	(2.037)	(1.301)	(7.178)	(2.062)	(1.227)	(6.516)
Greater than $120,000	−1.077	−1.182	−5.740	−1.246	−1.736	−7.946
	(1.488)	(1.292)	(4.658)	(1.476)	(1.343)	(4.685)
Coping Strategies	−0.594	0.140	7.459***			

	(0.619)	(0.497)	(2.096)			
Adjusting Own Use				0.450	0.485	-9.247***
				(0.696)	(0.416)	(2.222)
Fixing the IT				0.902	0.533	-3.048
				(0.634)	(0.428)	(2.136)
Seeking Instrumental Support				-0.142	-0.737	-4.696*
				(0.715)	(0.469)	(2.015)
Restraining				-0.341	-0.448	0.596
				(0.843)	(0.532)	(2.577)
Blaming the IT				1.132	1.081	0.134
				(1.263)	(1.073)	(3.910)
Downplaying the Problem				-0.548	-1.085	-4.613
				(1.145)	(1.141)	(4.518)
Venting				-2.409*	-0.660	1.644
				(1.100)	(0.833)	(3.001)
Seeking Emotional Support				1.114	0.538	-1.992
				(0.799)	(0.768)	(2.745)
Constant	23.24***	13.94***	29.21***	22.49***	13.86***	42.43***
	(2.089)	(1.001)	(6.668)	(2.027)	(1.210)	(6.466)
R-squared	0.2198	0.1101	0.4121	0.2757	0.1642	0.4940
Adjusted R-squared	0.0413	0.0935	0.2776	0.0539	0.0918	0.3390

N = 146, * p<0.05, ** p<0.01, *** p<0.001, Standard errors in parentheses

DISCUSSIONS AND LIMITATIONS

Discussions

As demonstrated by the results of our study, the copping model of user adaptation starts with employees' awareness of the IT event, which refers to their consciousness of and interest in knowing about IT changes, the potential benefits, threats, and consequences. The outcomes represented for the main effect of IT implementation characteristics manipulation show their prominent effect on the perceived opportunity ($\beta = 3.605, p < 0.001, Table\ 10 - Model$ 2), perceived threat ($\beta = -3.019, p < 0.001, Table\ 11 - Model$ 2), and perceived controllability ($\beta = 3.253, p < 0.001, Table\ 12 - Model$ 2). Such robust evidence in terms of significance and magnitude indicates that employees leverage situational and context-specific resources or feel discouraged by the lack of resources or sanctions when they appraise IT-related changes in their organizations. In that sense, our results are in line with the previous studies closely related to our work (Bala & Venkatesh, 2016; Elie-Dit-Cosaque & Straub, 2011). Thus, it paves the way for our research study to theorize and validate the moderating effect of the five-factor personality on the relationship between the situational factors affecting and cognitive appraisals (users' primary and secondary appraisals of an IT event).

Hence, we examined the role of personality and the five-factor model on users' adaptations towards IT changes. This focus enables us to understand better the importance of personality on individuals' assessment of an IT event while evaluating the primary and secondary appraisals as described by the TMSC. The results of our study indicate that IT implementation characteristics can further explain individuals' appraisals

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in combination with the individuals' dispositions and particularly personality traits. As expected, we observe that conscientiousness significantly moderates the relationship between IT implementation characteristics and individuals appraisals. From the combined results in Table 10, Table 11, and table 12, we conclude that conscientious individuals are more likely to perceive IT changes as an opportunity to help them succeed. As a result, these individuals will develop a more robust positive perception of IT implementation characteristics, empowering them to grow and perform better. Due to these personality trait qualities, conscientiousness will magnify the perception of opportunity ($\beta = 1.124, p < 0.001, Table\ 10 - Model$ 3) and perceived controllability ($\beta = 1.013, p < 0.001, Table\ 12 - Model$ 3).

Additionally, our findings suggest that neuroticism will moderate the relationship between the situational factors and users' primary and secondary appraisals of an IT event. The results of this study support the notion that neuroticism trait characteristics such as pessimism, insecurity, anxiousness, hostility, lack of confidence, and embarrassment significantly affect individuals' evaluations of the IT change. The results reveal supporting evidence that neuroticism trait is a negative channel that the person's interaction with environmental factors is interpreted, which commonly triggers negative emotions for individuals high on neuroticism. As a result, these individuals are more fearful of new situations and might experience helplessness. Our results indicate that individuals high on neuroticism are less likely to view new ICT as an opportunity ($\beta = -0.310, p < 0.001, Table\ 10 - Model$ 3) for their carrier success or a chance to improve the situation. Moreover, neuroticism is related to negative reactions to novel

organizational situations, so changes in IT and adaptation to these changes more likely to be seen as a threat ($\beta = 0.306, p < 0.05, Table\ 11 - Model\ 3$). Finally, individuals high in neuroticism will more likely develop a negative appraisal of control ($\beta = -0.237, p < 0.01, Table\ 12 - Model\ 3$). This will lead to greater occupational stress, increasing emotional exhaustion, and negative adaptational behavior.

However, the results related to extroversion personality traits did not support our hypothesized expectations. A plausible reason for these results could be the fact that we did not observe adequate variation among our research participants in terms of extroversion personality ($mean = 27.245, std.\ err.\ 0.590$). Further, the results of our post-hoc analysis show that the majority of the variance could be attributed to extrovert individuals being assertive and having or showing a socially confident and forceful personality. In that sense, individuals high in extraversion are less likely to view new ICT as an opportunity for them if it takes away their social role and facilitates distance working or virtuality. Future research should investigate this relationship in other contexts and settings to validate further the role of extroversion personality for different IT systems and employee positions within organizational settings.

For the effect of individuals' primary and secondary appraisals on the choice of coping strategies towards new IT, our analysis result emphasizes on the critical role of perceived threat. When employees evaluate the IT change as an anticipated threat to their organizational status or a risk to their performance, it is more likely to find emotion-focused coping strategies more appropriate for their situations. For example, individuals might expect adverse effects from IT change on their authority, autonomy, or job

security; therefore, they would appraise IT as a threat. The results indicate that with a higher perception of threat, the focus will be on strategies that regulate emotional distress and prevent negative thoughts. Therefore, individuals use a different set of resources and coping strategies such as blaming the IT, venting, or seeking emotional support to deal with the IT change. On the other hand, a lower level of perceived threat appraisal is associated with problem-focused coping strategies such as adjusting own use, fixing the IT, or seeking instrumental support to manage the IT change.

Furthermore, the results of analysis for hypotheses H9a, H9c, H10a, and H10c might be considered as supporting indications for the notion that IT problem-focused or emotion-focused coping adaptation strategies could provide valuable information addressing organizational job outcomes. The results of our study show that job burnout and job performance are associated with the adoption of emotion-focused coping strategies. In that sense, we conceive that with more significant adaptational behavioral towards emotion-focused strategies, employees might avoid the new system, dismiss their IT-related tasks, miscommunicate or fail to obtain necessary information maintained by the new IT, remain unable to fulfill their IT-dependent duties, and misuse the new system, which will result in negative consequence and IT-enabled employee job outcomes such as higher job burnout and lower job performance.

Implications for Research and Practice

This study explores the dynamics of individuals' appraisals and coping strategies as a natural consequence of the coping process towards new IT implementation in the organizational context. Thus, we discuss the salient role of individuals' dispositions and

the five-factor personality traits in contributing to user adaptation which has several important implications for research. Elie-Dit-Cosaque and Straub (2011) discuss that there is a virtually unstudied black box between usage behaviors and their most salient mentioned antecedents within the main body of the IS literature. This study answers this call for research, which recognizes a significant gap in the IS literature that very few IS theories have attempted to investigate the user adaptation process. Also, the results of our inquiry enable us to research disruptive IT events' potential triggers at early implementation stages interacting with individuals' dispositions like personality traits. Therefore, if the research aims to understand the users' adaptational behavior towards new IT, the results of our study can be considered an addition to the body literature further to advance the interplay of contextual and dispositional factors.

Even though the coping theory offers a robust framework to conceptualize the phenomenon at hand, it is blind to individual and contextual factors that shape individuals' adaptation process. As it is profoundly emphasized by the transactional model of stress and coping, we should investigate the dynamic between environmental variables and person dispositional factors to conceptualize a broader set of user adaptational responses. The theory of personality is a product of rigorous quantitative analysis, which puts forward evidence on the consequential validation and predictive utility of how different distinctive personality traits can shape individuals' rationality, thoughts, emotions, and behaviors. Our findings contribute to the theoretical perspective on the importance of individuals' personality. The results support the main premise that the five-factor personality factor should be more salient in future research. To the best of our knowledge, this is among the very first studies to demonstrate the important effect of

personality on individuals' perceived opportunity, perceived threat, and perceived controllability while adapting to new IT changes. We can argue in what way the interaction of personality and contextual factors is significant in how employees shape adaptational behavior and coping strategies. Our study offers several potentially interesting and fruitful research opportunities for future research by providing the first evidence.

By increasing the preliminary understanding of the importance of individuals' appraisals towards IT as a result of an interplay between contextual and individuals' dispositional factors, this study provides a more informed way to conceptualize the coping notion in terms of the selection or preference of coping strategies. Once we recognize the link among users' adaptation and coping strategies with their organizational job outcomes, we should gain a deeper integrative understanding of the influence of more comprehensive coping strategies on job outcomes affected by user adaptation. This matter calls for further research through both qualitative and quantitative research approaches to enriches our understanding of this phenomenon. Also, an investigation into the longitudinal relationship among the contextual factors and the five-factor with job outcomes such as job performance, job satisfaction, and job burnout could provide additional information on these relationships in terms of their effect size, significance, and magnitude.

Additionally, our study addresses the productive and counterproductive coping behaviors and individuals' job outcomes in response to IT stimulus events. In terms of different situational factors that could create disruptive IT incidents, this study's findings would provide valuable insight into the domain of managerial practice. Through the effect of

employees' appraisal evaluations of an IT change into preventing counterproductive job outcomes, our findings offer insights for IT managers and organizations' leadership on how effectively to carry out IT implementation strategies. Further, the study results emphasize the importance of the users' cognitive appraisals and encourage organizations' leaders to be more mindful of practices that increase individuals' perception of opportunity and control. Also, as evidenced by the results, perception of threat can significantly affect unintended job outcomes. Therefore, it is necessary to consider appropriate organizational practices and interventions to mitigate the effect of IT implementation characteristics on individuals' perceived threats. Future research might investigate different alternative mitigations that could reduce the negative effects of disruptive IT events and promote a higher perception of opportunity and perception of controllability.

The findings of our study will help organizations' leaders and managers to formulate strategies for better IT implementation practices. These results support the notion that it is unlikely that one size fits all approach in terms of IT-induced threat and opportunity appraisal would be suitable for employees with different personalities. Organizations' leaders might be more mindful in terms of individuals with certain personality traits such as neuroticism and conscientiousness while carrying out IT changes. In other words, it is important for managers to understand the personality composition of their employees to optimize the evaluation of perceived threat and perceived opportunity to avoid any unintended adaptational behavior, specifically among those who are more vulnerable in terms of negative consequences. This would enable the managers to successfully implement new IT changes through embracing individuals differences in terms of

personality without scarifying diversity or discounting employees' capabilities due to their dispositional differences.

Finally, our study indicates that employees' job outcomes such as job burnout and job performance are associated with individuals coping strategies toward new IT. Therefore, it is important to create a work environment that optimizes access to problem-focused coping strategies such as providing instrumental support or more flexible use adjustment, so a higher likelihood of adopting these strategies is developed. In addition, embracing an organizational culture that optimizes such conditions that encourages more productive adaptational responses would mitigate job burnout or occupational stress among the employee.

Limitations

There are specific limitations related to this study, and its findings should be interpreted in light of such limitations. We conducted this research by employing an experimental survey approach to investigate the transaction-based model of user adaptation and examine the moderating effect of individuals' personalities. Through randomized experimental design for the leftmost part of the model, we gained the advantages in terms of higher internal validity that enables us to address research questions at hand that involves causality. However, the observational data were the only option to explore the relationship and association of individuals' responses in terms of coping strategies and job outcomes. Although we statistically control for third variables to bridge the gap for observational data; yet, we do not infer causation from correlation for the rightmost part of the research model.

As in most studies, we use self-reported measures for job outcomes such as job satisfaction and job performance, which imposes limitations that need to be considered. Therefore, it is advisable that future research consider other alternatives rather than strictly self-reported and one-source measures. Furthermore, also we have avoided short measures of personality, yet it is helpful to use broader measures for personality to avoid excessively homogeneous responses. These measurement suggestions would further enable us to test the relationships and predict user adaptational behavior more rigorously.

Further, next studies could benefit from a more representative sample of the workforce in the organizational setting. It should be noted that the use of student samples and Mturk members allowed a wide range of participants in the workforce to use ICTs on a daily basis, yet a larger sample of employees from different organizations and different occupations could further advance our understandings of the research model in hand.

CONCLUSION

As discussed, new IT-related disturbing events remain a significant challenge for organizations as individuals could perceive what is at stake for them as an opportunity or a threat. Likewise, they assess the resources available while engaging in these situations. Therefore, this study was an effort to investigate further the contextual and dispositional factors which affect specific adaptation behaviors that individuals undertake to cope with an IT and the antecedents and consequences of these appraisals. By utilizing the coping model of user adaptation, we theorize users' IT adaptation behaviors as a coping process performed by individuals and investigate their coping appraisals that could affect job outcomes. Further, we theorize the moderating influence of personality traits on the

relationship between situation-specific factors and coping appraisal. Taking a holistic approach, this study provides a more informed way of conceptualizing the coping model of user adaptation, which influences the selection or preference of coping strategies and job outcomes. The results of our analysis offer thought-provoking insights; that motivate fruitful future research and have managerial implications for practice.

To conclude, the current study shows that the interaction of an individual's personality with organizational IT implementation factors is relevant to employees' cognitive appraisal of an IT change. This study is a step towards opening this black box by putting forward the distinct antecedents, consequences, and processes stemming from the IT implementation characteristics, personality traits and dispositional factors, and coping model of user adaptation. The present study intends to contribute to the IS literature by considering user adaptation and coping performance in the setting of user interaction with disruptive IT events and determining the influence of such interaction on individuals' coping adaptation and job outcomes.

Overall, we believe the five-factor model of personality should be more salient in future research to shed more light on why individuals appraise a situation as threat, opportunity, level of controllability, and what they could do to manage such conditions. Drawing on the theory of adaptation, we build on the transactional model of stress and coping and the coping model of user adaptation to conceptualize the influence of personality and how individuals' dispositions are influential in affecting the relationship between contextual characteristics of an IT stimulus event. The present study speaks to this matter by simplifying a relatively unexplored research territory that IS scholars refer to it as a black

box. Evidently, this attempts to show the importance of individuals' dispositions to understand the user adaptation notion further and conceptualize a complex and multifaceted research area in the IS discipline; IT acceptance and usage behavior.

The results of our study indicate that the perception of threat is one of the most important adaptational appraisals that determines the choice of coping strategies. When employees evaluate the IT change as an anticipated threat to their organizational status or a risk to their performance, it is more likely to find emotion-focused coping strategies more appropriate for their situations. Within the context of organizational job outcomes, this study attempts to investigate the association of job burnout and job performance with the choice among problem- and emotion-focused coping strategies. While our study is an initial attempt to enhance the coping theory of user adaptation, there could be limitations unaddressed. Nonetheless, we hope that this study could contribute to the IT adaption and use literature and serve as a step forward towards advancing future IT adaption and coping theory studies.

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Appendix A – Experiment Framing and Main Scenario

Table A1. Illustrative Case Scenario: The Main Framing	
An Illustrative Scenario	Comment
You are an Operations Manager at *OnlineGo*, which is enabling small and large businesses to create an extraordinary online experience for their clients. You are an essential part of a dynamic and quickly growing team that helps the company scale effectively. As a Business Operations Manager, you will run projects with cross-functional teams. You oversee and report out on key business metrics, and integrate best practices and institutional knowledge across the organization.	The introducing paragraph of each scenario.
Your position highly depends on collaborating and problem-solving with stakeholders and communicating vital information in a timely manner. So, *OnlineGo* needs to speed up partners' communications. Executive leadership is concerned that even though it has many communication channels, it still lacks efficiency in communication activities such as transferring information.	Communication centrality and company's ICT concerns
The *OnlineGo's* top management has decided to overhaul its old information communication systems (such as email, internal messengers, traditional customer helplines). They are implementing a single unified system, *UniConnect*, which is the most efficient way to connect people, project teams, and machines.	IT Change
UniConnect is a better way to communicate and follow along with everything related to particular topics, projects, or teams in their dedicated channels. Unlike email, conversations in *UniConnect* are easy to follow, and they're more than conversations. You can make calls, share files, and even connect with other apps. Projects end, teams change, and *UniConnect* saves everything. It helps to work closely with other companies. You can keep clients, vendors, or partners in the loop by sharing a channel in *UniConnect*.	New ICT Features and Description

Table A2. Illustrative Case Scenario: Implementation Factors

An Illustrative Scenario	Comment
You believe that the *UniConnect* is important to you personally and professionally. The new system provides multiple relevant functionalities to your job, so it is a significant concern.	Factor 1: User Involvement High
You believe that the *UniConnect* is not significant to you personally and professionally. The new system does not provide relevant functionality to your job, so it is not a great concern.	Factor 1: User Involvement Low
You believe that the *UniConnect* is somehow significant to you personally and professionally. The new system provides few relevant functionalities to your job, so it is a concern only at a moderate level.	Factor 1: User Involvement Neutral
The CEO of *OnlineGo* has indicated a strong level of interest and supports implementing this new system. The management recognizes the benefits of *UniConnect* and is highly committed to providing the system's required resources.	Factor 2: Management Support High
The CEO of *OnlineGo* has indicated a low level of interest and supports implementing this new system. The management is afraid that the benefits of *UniConnect* are few and is not committed to providing the system's required resources.	Factor 2: Management Support Low
The CEO of OnlineGo has indicated only a moderate level of interest and support for this new system. The management recognizes some of the benefits of *UniConnect* and is willing to help with the system's required resources.	Factor 2: Management Support Neutral
The training you received on the system was high quality. You got a great deal of information during the formal training that helps you to work with the system.	Factor 3: Training Effectiveness High
The training you received on the system was inadequate. You did not obtain useful information to be able to work with the system.	Factor 3: Training Effectiveness Low
The training you received on the system was relevant but not at an excellent level. You obtained some basic information to work with the system.	Factor 3: Training Effectiveness Neutral
OnlineGo used all available methods of announcements concerning the new system to make you fully aware of the implementation and knowing about IT changes.	Factor 4: Transparency of Information High
OnlineGo made few announcements, but the content did not allow you to be completely aware of the implementation, and you felt left out knowing about IT changes.	Factor 4: Transparency of Information Low
OnlineGo made some announcements to make you aware of the implementation, and you were moderately conscious about IT changes.	Factor 4: Transparency of Information Neutral
It is clear how your colleagues put UniConnect to good use, and it is completely transparent to you what other people accomplish with the new system and drive benefit from it.	Factor 5: Transparency of Use High
You cannot see how your colleagues work with UniConnect, and it is not always transparent what other people accomplish with the new system.	Factor 5: Transparency of Use Low

	Factor 5: Transparency of Use Neutral
You are not entirely clear about how your colleagues work with UniConnect, and you somehow know what other people accomplish with the new system.	

Appendix B – Experiment Framing and Survey Questions

Main Scenario – Framing Description

The First Screen Read: You are an Operations Manager at *OnlineGo*, which is enabling small and large businesses to create an extraordinary online experience for their clients. You are an essential part of a dynamic and quickly growing team that helps the company scale effectively. As a Business Operations Manager, you will run projects with cross-functional teams. You oversee and report out on key business metrics, and integrate best practices and institutional knowledge across the organization.

Your position highly depends on collaborating and problem-solving with stakeholders and communicating vital information in a timely manner. So, *OnlineGo* needs to speed up partners' communications. Executive leadership is concerned that even though it has many communication channels, it still lacks efficiency in communication activities such as transferring information.

Case Scenario #1 – Framing Description IT Change As High

The Second Screen Read: In keeping with input received from you and your colleagues, OnlineGo's top management decided to overhaul its old information communication systems (such as email, internal messengers, traditional customer helplines). Instead, they implement a single unified system, *UniConnect*, which is the most efficient way to connect people, project teams, and machines. You and your colleagues agreed

that *UniConnect* is a better way to communicate and follow along with everything related to particular topics, projects, or teams in their dedicated channels.

Unlike email, conversations in *UniConnect* are easy to follow, and they're more than conversations. You can make calls, share files, and even connect with other apps. Projects end, teams change, and *UniConnect* saves everything. It helps to work closely with other companies. You can keep clients, vendors, or partners in the loop by sharing a channel in *UniConnect*.

Case Scenario #2 – Framing Description IT Change As Low

The Second Screen Read: *OnlineGo's* top management has decided to overhaul its old information communication systems (such as email, internal messengers, traditional customer helplines) despite the fact that they did not ask for any input from you or your colleagues. Instead, they implement a single unified system, *UniConnect*, which is the main way to connect people, project teams, and machines. Top management decided on your behalf that UniConnect is a better way to communicate and follow along with everything related to particular topics, projects, or teams in their dedicated channels.

Case Scenario #3 – Framing Description IT Change As Neutral

The Second Screen Read: *OnlineGo's* top management has decided to overhaul its old information communication systems (such as email, internal messengers, traditional customer helplines). Instead, they implement a single unified system, *UniConnect*, which is the most efficient way to connect people, project teams, and machines. *UniConnect* is a better way to communicate and follow along with everything related to particular topics, projects, or teams in their dedicated channels.

Unlike email, conversations in *UniConnect* are easy to follow, and they're more than conversations. You can make calls, share files, and even connect with other apps. Projects end, teams change, and *UniConnect* saves everything. It helps to work closely with other companies. You can keep clients, vendors, or partners in the loop by sharing a channel in *UniConnect*.

Case Scenario #1 – IT Implementation Characteristics Manipulated As High

The Third Screen Read: You believe that the UniConnect is important to you personally and professionally. The new system provides multiple relevant functionalities to your job, so it is a significant concern. The CEO of OnlineGo has indicated a strong level of interest and supports implementing this new system. The management recognizes the benefits of UniConnect and is highly committed to providing the system's required resources. The training you received on the system was high quality. You got a great deal of information during the formal training that helps you to work with the system. OnlineGo used all available methods of announcements concerning the new system to make you fully aware of the implementation and knowing about IT changes. It is clear how your colleagues put UniConnect to good use; and it is completely transparent to you what other people accomplish with the new system and drive benefit from it.

Case Scenario #2 – IT Implementation Characteristics Manipulated As Low

The Second Screen Read: You believe that the UniConnect is not significant to you personally and professionally. The new system does not provide relevant functionality to your job, so it is not a great concern. The CEO of OnlineGo has indicated a low level of interest and supports implementing this new system. The management is afraid that the benefits of UniConnect are few and is not committed to providing the system's required

resources. The training you received on the system was inadequate. You did not obtain useful information to be able to work with the system. OnlineGo made few announcements, but the content did not allow you to be completely aware of the implementation, and you felt left out knowing about IT changes. You cannot see how your colleagues work with UniConnect, and it is not transparent what other people accomplish with the new system.

Case Scenario #3 – IT Implementation Characteristics Manipulated As Neutral

The Second Screen Read: You believe that the UniConnect is somehow significant to you personally and professionally. The new system provides few relevant functionalities to your job, so it is a concern only at a moderate level. The CEO of OnlineGo has indicated only a moderate level of interest and support for this new system. The management recognizes some of the benefits of UniConnect and is willing to help with the system's required resources. The training you received on the system was relevant but not at an excellent level. You obtained some basic information to work with the system. OnlineGo made some announcements to make you aware of the implementation, and you were moderately conscious about IT changes. You are not entirely clear about how your colleagues work with UniConnect, and it is not always transparent what other people accomplish with the new system.

Questions on manipulation check

The following questions are focused on your experience with new ICT technology. Using the scenario above, which of the following best describe the scenario that we presented to you.

Please choose a number for each statement to indicate the extent to which you agree or disagree with that statement by selecting 1 to 5 where 1 means you Strongly Disagree with the statement and 5 means you Strongly Agree with the statement.

Table B1 List of Measurement Items		
Variable	Manipulation	Survey Question Items
User Involvement	High	It is clear to me that my involvement in the process was very high.
User Involvement	Low	It is clear to me that my involvement in the process was very low.
User Involvement	Neutral	I am unclear about the level of my involvement in the process.
Management support	High	It is clear to me that the management support for *UniConnect* was very high.
Management support	Low	It is clear to me that the management support for *UniConnect* was very low.
Management support	Neutral	I am unclear about the level of management support for *UniConnect*.
Training effectiveness	High	It is clear to me that effectiveness of the training for *UniConnect* was very high.
Training effectiveness	Low	It is clear to me that effectiveness of the training for *UniConnect* was very low.
Training effectiveness	Neutral	I am unclear about the level of training effectiveness for *UniConnect*.
Transparency of Information	High	It is clear to me that my familiarity with *UniConnect* change process was very high.

Transparency of Information	Low	It is clear to me that my familiarity with *UniConnect* change process was very low.
Transparency of Information	Neutral	I am unclear about the level of my familiarity with *UniConnect* change process.
Transparency of Use	High	It is clear to me that the level of transparency of the use purposes for UniConnect was very high.
Transparency of Use	Low	It is clear to me that the level of transparency of the use purposes for UniConnect was very low.
Transparency of Use	Neutral	I am unclear about the level of transparency of the use purposes for UniConnect.

Questions on Measurement Items for Primary and Secondary Appraisals

Please use the scenario described above to answer the following questions.

Choose a number for each statement to indicate the extent to which you agree or disagree with that statement by selecting 1 to 7 where 1 means you Strongly Disagree with the statement and 7 means you Strongly Agree with the statement.

Table B 2 List of Measurement Items		
Variable	**Source**	Survey Question Items
Perceived Opportunity	Bala & Venkatesh (2016), Klein et al. (2001), Aiman-Smith and Green (2002)	POPP1. I am confident that *UniConnect* will have positive consequences for me. POPP2. I feel that *UniConnect* will open new avenues for success in my job. POPP3. *UniConnect* will provide opportunities to improve my job performance. POPP4. *UniConnect* will provide opportunities to gain recognition and praise.
Perceived Threat	Major et al. (1998), Bala & Venkatesh (2016)	PTHRT1. I am scared that *UniConnect* will have harmful (or bad) consequences for me. PTHRT2. I am worried that *UniConnect* may worsen my job performance. PTHRT3. I feel *UniConnect* might actually degrade my status in the organization. PTHRT4. I feel stressed about having to use *UniConnect* to accomplish my job.

Perceived Controllability	Major et al. (1998), Bala & Venkatesh (2016)	PCNTR1. I personally have what it takes to deal with the situations caused by *UniConnect*. PCNTR2. I have the resources I need to successfully use *UniConnect*. PCNTR3. I have the knowledge necessary to use *UniConnect*. PCNTR4. I am confident that I will be able to use *UniConnect* without any problems.

Questions on Measurement Items for Personality Traits

Please choose a number for each statement to indicate the extent to which you agree or disagree with that statement by selecting 1 to 7 where 1 means you Strongly Disagree with the statement and 7 means you Strongly Agree with the statement. "I see myself as someone who ... "

Table B 3 List of Measurement Items		
Variable	**Source**	**Survey Question Items**
Openness to Experience	Johnston et al. (2016)	OPEN1. Is inventive. OPEN2. Is original, comes up with new ideas. OPEN3. Values artistic, esthetic experiences. OPEN4. Has an active imagination. OPEN5. Likes to reflect, play with ideas. OPEN6. Is sophisticated in art, music, or literature. OPEN7. Is ingenious, a deep thinker. OPEN8. Is curious about many different things.

Conscientiousness	Johnston et al. (2016)	CONS1. Does a thorough job. CONS2. Does things efficiently. CONS3. Makes plans and follows through with them. CONS4. Is a reliable worker. CONS5. Perseveres until the task is finished.
Extraversion	Johnston et al. (2016)	EXT1. Is outgoing, sociable. EXT2. Is talkative. EXT3. Has an assertive personality. EXT4. Generates a lot of enthusiasm. EXT5. Is full of energy.
Agreeableness	Johnston et al. (2016)	AGR1. Is considerate and kind to almost everyone. AGR2. Likes to cooperate with others. AGR3. Is helpful and unselfish with others. AGR4. Has a forgiving nature. AGR5. Is generally trusting.
Neuroticism	Johnston et al. (2016)	NEUR1. Can be moody. NEUR2. Is depressed, blue. NEUR3. Gets nervous easily. NEUR4. Can be tense. NEUR5. Worries a lot.

Questions on Coping Strategies

Please use the scenario described above to answer the following questions.

Indicate which of the following would be the most appropriate for your situation as a result of the situation.

[In randomized order]

Table B 4 List of Measurement Items	
Coping Strategy	Survey Option
Problem-Focused Coping	Making a plan of action and concentrating on the next steps, weighing the alternatives in terms of their costs and benefits, choosing among them to act.
Emotion-Focused Coping	Regulating your negative and stressful emotions; making the situation better by lessening emotional distress associated with the situation.

Please use the scenario described above to answer the following questions.

Please check all the activities that you will do (or try to do) as a result of the situation. Take your time and think carefully.

[In randomized order:]

Table B 5 List of Measurement Items	
Coping Strategy	Survey Option
Adjusting Own Use to the IT	Adjusting my use routines in order to adapt to *UniConnect*.
Fixing the IT	Putting effort toward fixing the issues caused by *UniConnect* by changing the settings, through a workaround, or otherwise.
Seeking Instrumental Support	Looking for help from colleagues or on-line support to enhance my usage of *UniConnect*.
Restraining Until Updates	Hold back and keep under control till *UniConnect* provider's system provide a solution for issues caused by *UniConnect*.
Blaming the IT/Oneself	Blaming myself or accusing *UniConnect* of causing the situation to reduce my stress.

Downplaying the problem/IT	Downplaying the situation and *UniConnect* role to diminish the importance of the problem or the IT's meaning in my life.
Online/Offline Venting	Airing out my feelings, venting, or cursing (alone or with others) to let out my negative emotions and stress.
Seeking Emotional Support	Looking for sympathy, understanding, encouragement, advice, and moral support from family, friends, and colleagues or from on-line.

Questions on Measurement Items for Job Outcomes

Please use the scenario described above to answer the following questions.

Choose a number for each statement to indicate the extent to which you agree or disagree with that statement by selecting 1 to 7 where 1 means you Strongly Disagree with the statement and 7 means you Strongly Agree with the statement.

Table B 6 List of Measurement Items		
Variable	**Source**	Survey Question Items
Job Performance	Janssen & Van Yperen (2004), Bala & Venkatesh (2016)	JPERF1. I always complete the duties specified in my job description at OnlineGo. JPERF2. I meet all the formal performance requirements of the job at OnlineGo. JPERF3. I fulfill all responsibilities required by my job at OnlineGo. JPERF4. I successfully perform essential duties at OnlineGo.
Job Satisfaction	(Brayfield & Rothe, 1951) (Judge et al., 1998)	JSAT1. I feel fairly well satisfied with my present job at OnlineGo. JSAT2. Most days I am enthusiastic about my work at OnlineGo. JSAT3. Each day of work at OnlineGo seems like it will never end. (Reverse coded) JSAT4. I find real enjoyment in my work at OnlineGo. JSAT5. I consider my job at OnlineGo rather unpleasant. (Reverse coded)

		JBURN1. I feel emotionally drained by my work at OnlineGo.
Job Burnout	Maslach & Jackson (1986), Srivastava et al. (2015)	JBURN2. Working at my job all day long requires a great deal of effort. JBURN3. I feel like my work at OnlineGo is breaking me down. JBURN4. I feel frustrated with my work at OnlineGo. JBURN5. I feel I work too hard on my job at OnlineGo. JBURN6. It stresses me too much to work on my job at OnlineGo. JBURN7. I feel like I am at the end of my rope. JBURN8. I feel burned out from my work at OnlineGo. JBURN9. I feel used up at the end of the workday.

Questions on respondents

The following questions are about your general information.

Gender:

❍ Male (1)
❍ Female (2)
❍ Other

Age Group:

❍ 18-25 (1)
❍ 26-40 (2)
❍ 41-59 (3)
❍ 60+

Ethnicity:

- ❍ African American (1)
- ❍ American Indian or Alaska Native (2)
- ❍ Asian (3)
- ❍ Native Hawaiian or Pacific Islander (4)
- ❍ Caucasian (5)
- ❍ Hispanic or Latino (6)
- ❍ Middle Eastern

Education: What is the highest level of education you have achieved so far?

- ❍ High School
- ❍ Some College
- ❍ Bachelor's Degree
- ❍ Some graduate school courses
- ❍ Master's Degree or MBA
- ❍ Doctoral Degree

Professional Experience:

- ❍ No professional experience
- ❍ Up to 5 Years
- ❍ Between 6 and 10 Years
- ❍ Between 11 and 15 Years
- ❍ Between 16 and 20 Years
- ❍ Above 20 Years

Household Income Status:

❍ Less than $20,000
❍ Between $20,000 and $39,999
❍ Between $40,000 and $59,999
❍ Between $60,000 and $79,999
❍ Between $80,000 and $99,999
❍ Between $100,000 and $119,999
❍ Greater than $120,000

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