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## The Influence of Psychological Contracts and Burnout on IT Professionals' Turnover and Turnaway Intention

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### Abstract:

Retaining valuable information technology (IT) professionals is still an issue for organizations and the IT profession. The changing business environment and the increased demand for IT professionals to innovate using new technologies and processes puts pressure on IT turnover intention researchers to adapt and innovate as well. Psychological contract and burnout theories are used to explore precursors to turnover and turnaway intention. We collected data from 247 experienced IT professionals across different organizations. We found that (1) burnout is a formative construct with three reflective dimensions: exhaustion, cynicism, and professional efficacy; (2) burnout impacts IT professionals' turnaway intention more than turnover intention; and (3) burnout is positively related to psychological contract violation. Post-hoc analysis suggests that for non-married IT professionals, psychological contract breach influences psychological contract violation, but this is not the case for married IT professionals. Implications for research and practice are discussed.

**Keywords:** Burnout, Psychological Contract, Turnover Intention, Turnaway Intention, IT Professionals.

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## 1 Introduction

In the US, with a 12% projected growth in information sector jobs from 2018 to 2028, the demand for information technology (IT) professionals is still on the rise and at a higher rate than other occupations (U.S. Bureau of Labor Statistics, 2022<sup>1</sup>). According to Page (2018), 24 different countries reported software engineers and developers as the biggest professional need for their country. The ubiquitous nature of technology necessitates a continuous call for more individuals that can meet the global demand for a skilled IT workforce. Individuals within the IT field work daily with others across organizational, cultural, and temporal boundaries, often blurring for them the existence of a stable traditional organizational environment. Concerns over retaining valued IT professionals have re-energized scholars in their study of the drivers of turnover intention to furnish organizations with recommendations on how to keep valued IT professionals within the organization.

The rapid evolution of technology and the changing labor market have led to digital disruption and data-driven change within the business environment. As a result, organizations that effectively use IT to leverage human and business resources are experiencing a competitive advantage (Holbeche, 2009). But the effective use of IT in this evolving business environment creates new demands on IT personnel. IT professionals are tasked with having both technical and business knowledge, with being able to innovate at increasing speeds, and with having the skills to extract competitive advantage from new technologies (e.g., Byrd & Turner, 2001; Ko & Kirsch, 2017).

According to Eckhardt, Laumer, Maier, and Weitzel (2016, p. 50), “Job satisfaction and organizational commitment are the two major antecedents of IT personnel turnover intention, [defined as the intention to leave the organization but not the IT profession], which is why these three constructs and their interrelationships are called the ‘basic turnover model’.” This basic model has been studied by IS scholars since 1983 (Bartol, 1983), and still we have not solved the turnover issue. In addition, scholars are noting an increase in different types of work-related mobility of IS personnel beyond turnover intention. One particularly salient form of work-related mobility is turnaway intention, which is the intention to change professions or transition to another career away from IT (Armstrong et al., 2015; Joseph et al., 2012). Thus, not only is the *organization* challenged to retain valued IT personnel, but also the *field* is facing challenges retaining IT professionals.

It is time to move beyond the ‘basic turnover model’ to discover what might be part of the nomological net of job mobility. Recently, information systems (IS) scholars have begun to employ two additional theories to explore turnover – burnout and psychological contracts. Burnout is a negative state or fatigue symptom produced by prolonged exposure to work-related demands/stressors, and the theory states that one of the outcomes of burnout is turnover intention (Maslach & Jackson, 1986; Shih et al., 2013). A few IT-related studies have found that the dimensions of burnout are a stronger predictor of turnover intention than job satisfaction and affective [organizational] commitment (Kim & Wright, 2007; Rigas, 2009), lending support for its inclusion in turnover models.

Psychological contract theory asserts that a tacit relationship exists between an employer and employee regarding the expectations of the employment relationship (Rousseau, 1989). Whenever the organization acts differently than the expectation of the employee, she will feel a psychological contract *breach*, and the severity of the psychological contract *violation* she feels will depend on how she makes sense of the breach. Not only is the IT workplace continuing to change, but the labor market and employment relationships are also changing. These changes have been explored for IT professionals using the idea of a psychological contract (Moquin et al., 2019) and relationships have been found between burnout dimensions, psychological contracts, and turnover intention. While each of these theories adds to our understanding of turnover intention, together, they may provide a more holistic view of factors contributing to turnover intention within the IT context beyond the “basic” turnover model. Jointly leveraging these theories might also inform our understanding of IT turnaway intention defined as “the intention to change professions/careers as opposed to changing a job or organization” (Armstrong et al., 2015, p. A2). Thus, we examine the following research questions:

**RQ1: What is the impact of psychological contracts on turnover intention and turnaway intention?**

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<sup>1</sup> <https://www.bls.gov/ooh/computer-and-information-technology/home.htm>

## **RQ2: What is the impact of burnout on turnover intention and turnaway intention?**

This paper proceeds as follows. In Section 2, we discuss the theoretical background and hypotheses development. In Section 3, we detail the research methodology, data collection, and model testing. In Section 4, we report the results. In Section 5, we discuss the key findings, theoretical and practical implications, future research, and limitations of the study. Finally, in Section 6, we conclude the paper.

## **2 Theoretical Background and Hypotheses Development**

### **2.1 Psychological Contract Theory**

Psychological contract theory was developed to understand individuals' perceptions of the nature of their employment relationship and is defined as "individual beliefs, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization" (Rousseau, 1995, p. 9). A psychological contract is formed by individuals' beliefs of the reciprocal obligations between the employee and the employer/organization (Rousseau, 1989). Recently, IS workforce researchers have turned their attention to psychological contract theory to explore the areas of governance (Kim et al., 2013; Lioliou et al., 2014), user resistance to IS implementations (Lin et al., 2018), and turnover intention (Moquin et al., 2019).

A psychological contract breach is the perception that the organization has failed to fulfill one or more obligations or promises (Robinson & Rousseau, 1994). A psychological contract breach can lead to several undesired outcomes, including a psychological contract violation (e.g., Raja et al., 2004; Robinson & Morrison, 2000; Suazo et al., 2005). A psychological contract violation is defined as the negative affective state that can arise from a psychological contract breach (Morrison & Robinson, 1997). So, the breach is the cognitive evaluation (i.e., sense-making) of the experience (i.e., the organization's failure to fulfill the obligation), while the violation is the feelings (e.g., disappointment, anger) employees may experience as a result of the breach (Suazo, 2009). In addition, Morrison and Robinson (1997) argued that since breach depends on subjective perceptions, it does not always trigger intense emotions and violation, but "the intensity of violation will be related to the perceived magnitude of the contract breach" (p. 243).

Robinson and Morrison (2000) proposed the breach – violation relationship, and subsequent empirical research has found that psychological contract breach positively impacts psychological contract violation (Jamil et al., 2013; Lin et al., 2018; Zhao et al., 2007). Consistent with previous literature, we assert that when IT professionals perceive that they have not received (or received less than) what the organization promised, they will mentally evaluate the situation to determine if a breach has occurred. This cognitive action may trigger an emotional response and feelings of violation. For example, an IT professional who understood that the organization would pay for her continuous learning needs, to be protected from IT skills obsolescence, would likely experience a psychological contract breach when her manager tells her that she needs to pay these expenses out of her own pocket. If the affective response to the perceived psychological contract breach is severe (e.g., anger because of the high cost of the learning and lack of personal funds), this may result in feelings that the psychological contract has been violated. Therefore, we confirm this relationship in our context:

**Hypothesis 1: Psychological contract breach is positively related to psychological contract violation.**

### **2.2 Turnover Intention and Turnaway Intention**

Since the 1980s, scholars have examined the turnover intention of IT professionals. The most often used theoretical framework is March and Simon's (1958) organizational equilibrium theory, which posits that one's desire to move and the ease of movement influences an individual's intention to leave an organization. Researchers have explored the antecedents related to the desire to move, such as affective commitment and job satisfaction (e.g., Dinger et al., 2015; Lo & Riemenschneider, 2011; McKnight et al., 2009), as well as antecedents related to the ease of movement such as perceived job alternatives (e.g., Hester et al., 2014; Kim, 2012; Zhang et al., 2012).

Researchers in the management field have found that psychological contract violation positively influences turnover intention (e.g., Bal et al., 2016; Kraak et al., 2017; Salin & Notelaers, 2017). Within the IS field, Moquin et al. (2019), looking only at psychological contract breach, found that breach positively

influenced turnover intention. Consistent with social exchange theory (Blau, 1964), if IT professionals perceive that their organization has not fulfilled its promises (i.e., not reciprocated the IT professionals' contributions), then IT professionals may re-establish balance in the relationship (i.e., resolve the frustration with the current organization) by considering leaving the organization. For example, during the pandemic, many IT professionals have been relied on to support a wide variety of hardware and system configurations, design responsibilities, and mastering a plethora of products (e.g., apps, webcams), which was most likely not part of the initial psychological contract agreement. While this situation may not lead to a psychological contract violation during the pandemic, it may reach that level if the IT professional is required to continue in the same vein indefinitely. We posit that IT professionals who experience a violation of their psychological contract are more inclined to leave their organization. Therefore:

**Hypothesis 2: Psychological contract violation is positively related to turnover intention.**

Turnover research within the IS field has also explored the distal antecedents of turnover intention, such as job-related factors (e.g., Dinger et al., 2010; Maier et al., 2015; Rutner et al., 2008; Shih et al., 2011; Thatcher et al., 2006; Weinert et al., 2015), individual attributes (e.g., Ahuja et al., 2007; Eckhardt et al., 2016; Joseph et al., 2010a; Joseph et al., 2010b; Oosthuizen et al., 2016; Zaza et al., 2015), and organizational factors (Harden et al., 2018; Lo & Riemenschneider, 2011).

Scholars have recently begun to study IT turnaway intention in addition to IT turnover intention. Initial research has found that the antecedents for turnover and turnaway intention are both similar (e.g., threat of professional obsolescence (Joseph et al., 2010b); experienced meaningfulness (Koh & Joseph 2016)), and unique (affective commitment to profession and satisfaction with profession impact turnaway intention (Brooks et al., 2015); job insecurity only impacts turnaway intention (Porto Bellini et al., 2019)). Joseph, Ang, and Slaughter (2015) assert that individuals "can leave the IT profession to 'seed the line<sup>2</sup>,' perhaps because of the ubiquitous deployment of IT in firms. Such ease of movement of IT professionals to jobs outside of the IT profession suggests that IT skills, unlike other professional skills (e.g., medicine, law, or accounting), may be more easily transferable than previously thought" (p. 160).

If individuals have already turned over to IT positions in different organizations, they may conclude that the psychological contract violation is a function of the IT work environment. This realization may influence the decision to turnaway from the IT profession. Thus, IT professionals who experience psychological contract violation (i.e., feel violated due to the unfulfilled promises at their organization) may decide to leave the IS profession to restore balance (i.e., resolve the frustration with the profession). Therefore, we hypothesize:

**Hypothesis 3: Psychological contract violation is positively related to turnaway intention.**

## 2.3 Burnout

Stemming from workplace stressors, burnout is defined as emotional, mental, and physical fatigue caused by prolonged stress (Pines & Aronson, 1988; Shih et al., 2013). It is a persistent condition that results from work stressors taking their toll on employees (Maslach, 1982). Burnout is manifested in individuals through three response syndromes: exhaustion (reflecting the stress of being overextended), cynicism (reflecting the strained relationship with work/the work environment), and professional inefficacy (reflecting confidence erosion from a lack of relevant resources) (Maslach et al., 2001; Maslach et al., 2009). The exhaustion dimension refers to "feelings of being overextended and depleted of one's emotional and physical resources" (Maslach et al., 2001, p. 399). The cynicism dimension refers to "a negative, callous, or excessively detached response to various aspects of the job" (Maslach et al., 2001, p. 399). The professional inefficacy dimension refers to "feelings of incompetence and a lack of achievement and productivity at work" (Maslach et al., 2001, p. 399).

IS scholars have utilized only one dimension, exhaustion, as a proxy for burnout (e.g., Ahuja et al., 2007; Moore, 2000; Rutner et al., 2008; McKnight et al., 2009). But Leiter and Maslach (2016, p. 90) state, "A focus on just exhaustion may ignore other aspects of the burnout experience." We echo their concerns since:

*People experiencing burnout are not simply exhausted or overwhelmed by their workload. They also have lost a psychological connection with their work, which has implications for their motivation and their identity. The cynicism and inefficacy aspects of burnout capture both people's*

<sup>2</sup> "By seeding the line, IT professionals move laterally into non-IT line jobs" (Joseph et al. 2015, p. 148).

*disaffection with work and a crisis in their work-based efficacy expectations.* (Leiter and Maslach, 2016, p. 90)

In one of the few studies to address burnout in the IT field, Weinert et al. (2015) looked at the influence of the three dimensions of burnout on turnover intention. They found minimal influence on turnover intention for the separate dimensions. Thus, in this study, we utilize burnout as a multidimensional construct to get a more holistic picture of the phenomenon.

Organizational socialization refers to “the fashion in which an individual is taught and learns what behaviors and perspectives are customary and desirable within the work setting as well as what ones are not” (Van Maanen & Schein, 1977, p. 4). Since such behavior is based on the interaction among employees and employers, it is fundamentally an organizational culture matter consisting of shared standards, customs, and rituals rooted in everyday work experiences to the degree that it becomes a natural inherited, sometimes unspoken, exchange of the expectations of the employee-employer relationship. Therefore, when the employer acts differently than the expected “customs” and counters to the culture, the employee will feel that the psychological contract is breached. When the employee is already feeling burnout from work, and faced with an unexpected, undesired, behavioral change (against the organizational culture) from the employer, this encounter will alter the sense making process and potentially increase the severity of the psychological contract violation.

Our context is also informed by the person-environment (P-E) fit model of stress (Cooper et al., 2001; Edwards, 1991; Edwards & Cooper, 1988; Ayyagari et al., 2011). P-E fit entails a pairing between a person and their environment. In our context, it is the match between the needs of the employee and what the organization provides from the work environment. The unfulfilled needs of the employee may lead to undesired work-related outcomes such as job dissatisfaction and burnout (e.g., Cooper et al., 2001; Giauque et al., 2014). Since the subjective evaluation of the P-E (mis)fit is based on the perception of the employee, it resonates with their evaluation of the breach and, consequently, their increased burnout and magnified psychological contract violation.

Burnout has primarily been studied as a negative outcome of psychological contract breach (Costa & Neves, 2017; Topa et al., 2018; Chambel & Cruz, 2010; Piccoli & De Witte, 2015) and some studies have looked at burnout as an outcome of psychological contract violation (Ali et al., 2019; Jamil et al., 2013). However, the reverse association remains unexplored. We argue that burnout is potentially a precursor to psychological contract violation. Considering the previously identified overlap in psychological contract theory, organizational socialization, job culture, and P-E fit, in addition to the complexity of burnout, we are including all three dimensions of burnout modeled as a second order formative construct. While a perception of a psychological contract violation (as a stressor) may positively affect feelings of burnout, IT professionals who are experiencing burnout from other stressors are expected to have an increased intensity in their emotional response to a psychological contract violation. If an IT professional's well-being is compromised by burnout, their feelings of psychological contract violation will be exacerbated. We hypothesize that:

**Hypothesis 4: Burnout is positively related to psychological contract violation.**

As stated previously, the IS literature has studied burnout (Mak & Sockel, 2001) but has mainly focused on one dimension, exhaustion, as “the central quality of burnout” (Maslach et al., 2001, p. 402), and an antecedent to turnover intention (e.g., Ahuja et al., 2007; Moore, 2000; Rutner et al., 2008). Scholars have found that exhaustion positively impacts an IT professional's turnover intention (e.g., Ahuja et al., 2007; Mak & Sockel, 2001; Rutner et al., 2008). While these findings lend support to the burnout - turnover intention relationship, utilizing only the exhaustion dimension may not capture the full burnout experience. Therefore, we posit that IT professionals who experience burnout are more inclined to leave their organization and furnish the following hypothesis:

**Hypothesis 5: Burnout is positively related to turnover intention.**

In the last decade, scholars have started looking into the influence of the exhaustion burnout dimension on turnaway intention (Armstrong et al., 2015; Shropshire & Kadlec, 2012). While Shropshire and Kadlec (2012) used canonical correlation analysis to identify that work-related exhaustion was one of the variables that influenced turnaway intention, Armstrong, Brooks and Riemenschneider (2015) found that the impact of exhaustion with the IS profession to turnaway intention was fully mediated by commitment to the IS profession. In contrast, Joia and Mangia (2017) found a positive direct influence for work exhaustion on turnaway intention. Consistent with these partial findings (i.e., only measured exhaustion),



we posit that IT professionals who experience work-related burnout are more inclined to leave the profession. Therefore:

**Hypothesis 6: Burnout is positively related to turnaway intention.**

Based on the idea put forward by McLean, Smits, and Tanner (1996), we assert that if individuals have already turned over to IT positions in different organizations, they may realize that the same reasons they left the previous organization (or organizations) remain in the new organization (e.g., lack of professional growth opportunities; lack of work-life balance). This realization, in conjunction with their transferable skills, may influence their decision to turnaway from the IT profession altogether. In essence, ‘it’s not the organization that’s holding me back, it’s being in IT’. For instance, an IT professional might move from IT-focused duties in the industry to another area such as education, move from IT operations to be CEO of the same organization, or become an entrepreneur and start a company. Therefore, we posit the following hypothesis:

**Hypothesis 7: Turnover intention is positively related to turnaway intention.**

Figure 1 graphically presents the hypotheses. We add control variables for both dependent variables (turnover intention and turnaway intention). IS focused turnover-related studies have traditionally used age, gender, marital status, education, organizational tenure, job type, and industry as control variables (e.g., Ahuja et al., 2007; Igbaria & Siegel, 1992; Maier et al., 2015). We utilize these variables and add affective commitment and job satisfaction as controls since these constructs have a well-established influence on turnover intention and comprise the “basic turnover model of IT” (e.g., Dinger et al., 2015; Eckhardt et al., 2016; Thatcher et al., 2006).

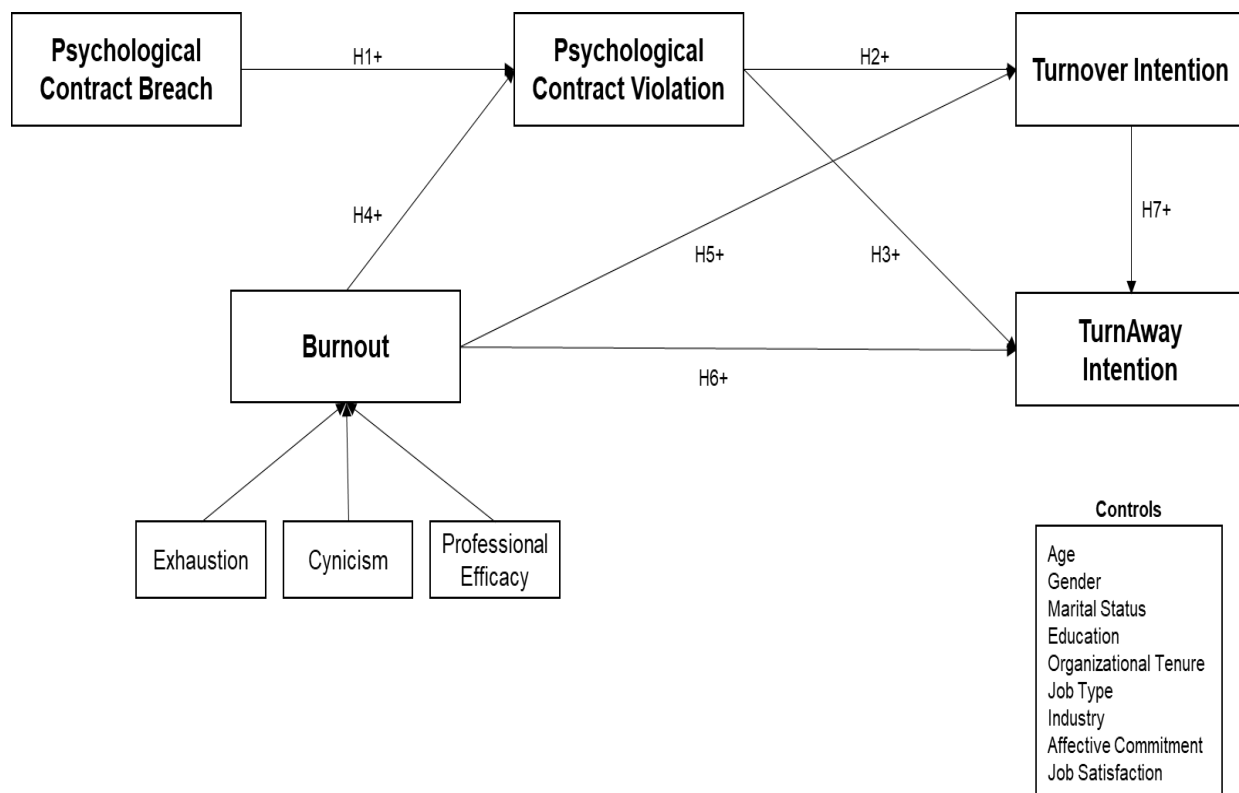


Figure 1. Theoretical Model

### 3 Research Methodology

We collected data using a survey through Qualtrics Panel. Qualtrics Panel allows criteria-based sampling (Creswell, 2013) by selecting participants based on an apriori set of attributes. Our survey targeted IT professionals who are full-time employees, have a least five years of IT experience in an organization, and have worked for at least two different organizations. We deemed these criteria as necessary since the constructs under study might not be applicable to new hires.

Since using a survey instrument to collect all the variables, common method variance (CMV) might be an issue (Doty & Glick, 1998). To address this issue, we used previously tested items from extant literature, various "attention" questions, and a correlational marker variable because "the best way is for the researcher to include a scale that is theoretically unrelated to at least one other scale in the questionnaire, so there is an a priori justification for predicting a zero correlation" (Lindell & Whitney, 2001, p. 115). This technique "is based on the notion of controlling for common method variance by partialling out shared variance in bivariate correlations associated with a particular covariate. According to this technique the best estimate of CMV in a data set is represented by the smallest observed positive correlation between a substantive variable and an a priori chosen 'marker' variable that is believed to be theoretically unrelated to at least one substantive variable, but susceptible to the same causes of CMV" (Richardson et al., 2009, p. 767-768). It is the shared variance between the marker and the substantive variables that represents a single unmeasured method factor, i.e., CMV in the data (Richardson et al., 2009). The marker variable used in this study is "I am planning on going on a trip in the next six months." The smallest correlation between the marker and substantive variables was 0.04, which indicates negligible shared variance and that our dataset is not affected by common method variance (Richardson et al., 2009).

All construct items were adopted from well-established instruments. Psychological contract breach and psychological contract violation were adopted from Robinson and Morrison (2000), burnout was adopted from Leiter and Maslach (2016), turnover intention was adopted from Moore (2000), and turnaway intention was adopted from Meyer, Allen, and Smith (1993). Appendix A provides the measures, scales, and sources.

From the 273 IT employees that took the survey, 247 usable responses were retained (90 percent). We used G\*Power (Erdfelder et al., 1996) to calculate the sample size required a priori by specifying the effect size as 0.3, alpha at 0.05, and power at 0.95. We found the size of the sample needed to be 134, so our sample size was sufficient. The respondents' job type included technical, administrative, and managerial, and spanned diverse industries, including IT services/software, manufacturing, retail, healthcare, and education. Respondents' descriptive statistics are provided in Table 1.

We used SmartPLS 3.3.2 (Ringle et al., 2015) because variance-based structural equation modeling (SEM) tools are appropriate to test models with formative constructs and specifically "higher-order molar constructs" since covariance-based SEM would provide invalid estimates (Chin, 2010, p.664-665).

According to Petter, Straub, and Rai (2007), "Given the problems that occur when a construct is mismodeled, we need to do a better job in IS at specifying constructs" (p. 632). While the preponderance of previous IS literature has used only the exhaustion dimension of burnout (e.g., Armstrong et al., 2015) to represent the construct, we believe this is not appropriate. Following the decision rules provided by Jarvis, MacKenzie, and Podsakoff (2003) and Petter et al. (2007) in specifying formative constructs, we argue that burnout should be modeled as a second-order formative construct. "A complex construct that is the main topic of study may deserve to be modeled as a multidimensional construct to permit a more thorough measurement and analysis" (Petter et al., 2007, p. 627). With a formative construct, "the direction of causality flows from the indicators to the latent construct, and the indicators, as a group, jointly determine the conceptual and empirical meaning of the construct" (Jarvis et al., 2003, p. 201).

Given this explanation, does it make more sense to say individuals have higher levels of burnout because they have higher exhaustion, cynicism, and reduced professional efficacy (formative), or that individuals have higher exhaustion, cynicism, and reduced professional efficacy because they have higher levels of burnout (reflective). We argue that burnout is formed by the three dimensions. Also, these dimensions not only comprise burnout but also any changes in exhaustion, for instance, cause changes in burnout while changes in burnout do not necessarily cause changes in exhaustion per se. We, therefore, operationalize burnout as a second-order formative construct consisting of three dimensions: exhaustion, professional efficacy, and cynicism (Leiter & Maslach, 2016; Maslach & Jackson, 1981). The three dimensions are comprised of reflective items, and the relationship between the dimensions and the burnout construct is formative (reflective indicators, formative dimensions).



**Table 1. Descriptive Statistics**

Demographic Variable	Count	Percent	Demographic Variable	Count	Percent
<b>Age</b>			<b>Gender</b>		
Between 18 and 29	15	6.1	Woman	98	39.7
Between 30 and 39	92	37.2	Man	148	59.9
Between 40 and 49	83	33.6	Transgender	1	0.4
Between 50 and 59	37	15.0			
60 and above	20	8.1			
<b>Education</b>			<b>Marital Status</b>		
High school graduate	10	4.0	Married	162	65.6
Some college	28	11.3	Not-Married	85	34.4
2-year degree	21	8.5			
4-year degree	102	41.3			
Professional degree	19	7.7			
Graduate degree	64	25.9			
Doctorate	3	1.2			
<b>Organization Tenure</b>			<b>Position Tenure</b>		
<1 year	2	0.8	<1 year	7	2.8
1-3	27	10.9	1-3	54	21.9
4-6	65	26.3	4-6	86	34.8
7-9	65	26.3	7-9	50	20.2
10-12	47	19.0	10-12	25	10.1
13-15	19	7.7	13-15	11	4.5
16-20	11	4.5	16-20	11	4.5
> 20	11	4.5	> 20	3	1.2
<b>IT Tenure</b>			<b>Number of Organizations</b>		
6 years	40	16.2	2	103.0	41.7
7-9years	52	21.1	3	88.0	35.6
10-12years	65	26.3	4	23.0	9.3
13-15years	33	13.4	5	13.0	5.3
16-20years	24	9.7	6	5.0	2.0
More than 20	33	13.4	More than 6	15	6.0
<b>Industry</b>			<b>Job Type</b>		
Education	10	4.0	Technical	128	51.8
Government	9	3.6	Managerial	98	39.7
Healthcare	12	4.9	Administrative	21	8.5
IT Services/Software	137	55.5			
Manufacturing	26	10.5			
Retail	14	5.7			
Transportation	5	2.0			
Insurance	5	2.0			
Banking and Finance	11	4.5			
Other	18	7.3			

## 4 Results

We assessed the construct reliabilities and the convergent and discriminant validity of the model, when appropriate, following the guidelines of Chin (1998). We performed principal components factor analysis that resulted in eliminating items that either loaded higher on another construct than on their respective construct or loaded less than 0.50 on their respective construct. The factor analysis is provided in Table 2, and the removed items are noted with an (\*). For convergent validity, as shown in Table 2, all items loaded on their respective construct above the recommended threshold of 0.70 except for the removed items. As shown in Table 3, the composite reliability ranged from 0.89 to 0.95, which is above the recommended threshold of 0.70 (Nunnally, 1978).

**Table 2. Factor Loadings**

Variable	Turnaway Intention	Contract Breach	Contract Violation	Turnover Intention	Exhaustion	Professional Efficacy	Cynicism
TAI_1_R*	<b>0.549</b>	0.441	-0.060	0.225	0.076	0.181	0.022
TAI_2*	<b>0.697</b>	-0.155	0.410	0.071	0.103	0.139	0.113
TAI_3	<b>0.790</b>	0.022	0.223	0.123	0.235	0.154	0.161
TAI_4	<b>0.779</b>	0.012	0.279	0.119	0.192	0.117	0.164
ContractBreach_1_R	0.038	<b>0.840</b>	0.151	0.080	0.237	0.096	0.031
ContractBreach_2_R	-0.044	<b>0.871</b>	0.169	0.131	0.148	0.170	0.125
ContractBreach_3_R	0.026	<b>0.871</b>	0.172	0.183	0.169	0.079	0.105
ContractBreach_4*	0.179	<b>0.212</b>	0.642	0.119	0.164	0.077	0.158
ContractBreach_5*	0.254	<b>0.205</b>	0.753	0.088	0.263	0.157	0.109
ContractViolation_6	0.184	-0.006	<b>0.781</b>	-0.028	0.237	0.153	0.260
ContractViolation_7	0.113	0.166	<b>0.802</b>	0.173	0.262	0.214	0.155
ContractViolation_8	0.179	0.109	<b>0.823</b>	0.073	0.290	0.166	0.109
ContractViolation_9	0.121	0.142	<b>0.795</b>	0.162	0.212	0.262	0.149
TOI_1	0.086	0.184	0.261	<b>0.695</b>	0.157	0.179	0.105
TOI_2_R*	0.369	0.319	0.238	<b>-0.321</b>	-0.026	0.070	0.476
TOI_3	0.294	0.266	0.142	<b>0.694</b>	0.085	0.170	0.122
TOI_4_R*	0.431	0.446	0.339	<b>-0.162</b>	0.103	0.060	0.384
Exhaustion_1	0.132	0.138	0.162	0.124	<b>0.802</b>	0.044	0.133
Exhaustion_2	0.124	0.088	0.149	0.062	<b>0.861</b>	0.014	0.109
Exhaustion_3	0.105	0.186	0.211	0.037	<b>0.800</b>	0.073	0.173
Exhaustion_4	0.081	0.069	0.282	-0.037	<b>0.802</b>	0.087	0.148
Exhaustion_5	0.076	0.185	0.285	0.096	<b>0.782</b>	0.113	0.185
ProfEfficacy_1_R	-0.028	0.020	0.228	0.071	0.024	<b>0.768</b>	0.153
ProfEfficacy_2_R	0.036	0.127	0.205	0.143	0.025	<b>0.756</b>	0.241
ProfEfficacy_3_R	0.061	-0.083	0.182	0.102	0.011	<b>0.764</b>	0.023
ProfEfficacy_4_R	0.144	0.137	-0.011	0.070	0.132	<b>0.758</b>	0.000
ProfEfficacy_5_R	0.142	0.125	0.019	-0.025	0.128	<b>0.735</b>	0.032
ProfEfficacy_6_R	0.145	0.130	0.178	0.042	0.044	<b>0.787</b>	0.044
Cynicism_1*	0.278	0.137	0.237	0.317	0.464	0.141	<b>0.458</b>
Cynicism_2*	0.187	0.141	0.189	0.304	0.456	0.261	<b>0.483</b>
Cynicism_3	0.013	0.098	0.202	0.163	0.253	0.058	<b>0.718</b>
Cynicism_4	0.212	0.044	0.219	0.025	0.404	0.173	<b>0.667</b>
Cynicism_5*	0.307	0.065	0.250	0.091	0.348	0.234	<b>0.552</b>

R = reverse scored item

\* = removed from analysis due to poor factor loading

Based on SmartPLS 3.3.2 output, for discriminant validity, as shown in Table 3 and Table 4, the correlation between any two constructs is less than the square root of their AVE (Fornell & Larcker, 1981). Since SmartPLS does not provide the significance of the correlations, we used an online tool to calculate the significance of the correlation by providing the r-score and sample size.<sup>3</sup>

**Table 3. Correlation**

Construct	M	SD	BR	VL	EX	CY	PE	TO	TA	AC	JS
BR <sup>(a)</sup>	2.57	1.3	<b>.94</b>								
VL <sup>(a)</sup>	2.66	1.8	.36***	<b>.92</b>							
EX <sup>(b)</sup>	2.22	1.7	.38***	.54***	<b>.88</b>						
CY <sup>(b)</sup>	2.10	1.8	.32***	.52***	.57***	<b>.89</b>					
PE <sup>(b)</sup>	0.77	1.0	.27***	.42***	.24***	.31***	<b>.79</b>				
TO <sup>(a)</sup>	2.68	1.6	.40***	.42***	.36***	.32***	.37***	<b>.90</b>			
TA <sup>(a)</sup>	3.21	1.7	.16*	.54***	.40***	.46***	.33***	.39***	<b>.89</b>		
AC <sup>(a)</sup>	5.90	1.0	-.72***	-.40***	-.40***	-.40***	-.39***	-.43***	-.27***	<b>.85</b>	
JS <sup>(a)</sup>	5.86	1.1	-.66***	-.39***	-.51***	-.42***	-.40***	-.41***	-.25***	.73***	<b>.91</b>
AG			.03	-.03	.01	-.07	-.02	-.04	-.04	-.07	-.03
GN			-.01	.17**	.03	.13*	.09	-.02	.16*	-.03	-.02
MS			.13*	-.12*	.03	-.08	-.04	.07	-.10	-.19**	-.08
ED			-.05	.17**	.10	.10	.09	.02	.05	.05	.08
OT			-.15*	-.03	-.04	-.01	-.04	-.10	-.06	.17**	.14*
JT			-.13*	.00	-.05	-.01	-.02	.01	.13*	.18**	.17**
IN			-.04	-.18**	-.12	-.14*	-.10	-.06	-.15*	.08	-.02

Notes:

\*\*\* p< 0.001, \*\* p<0.01, \* p<0.05

The diagonal reports the square root of the average variance extracted (AVE)

Legend: BR = Psychological contract breach; VL = Psychological contract violation; EX = exhaustion; CY=Cynicism; PE = Professional efficacy; TO = Turnover intention; TA = Turnaway intention; AC = Affective commitment; JS = Job satisfaction; AG = Age; GN = Gender; MS = Marital Status, ED = Education, OT = Organizational tenure; JT = Job type; IN = Industry

(a) Scale:1 = strongly agree; 4 = neither agree nor disagree; 7 = strongly disagree

(b) Scale: 0 = never; 1 = a few times a year or less; 2 = once a month or less; 3 = a few times a month; 4 = once a week; 5 = a few times a week; 6 = daily

**Table 3. Correlation, Continued**

Construct	AG	GN	MS	ED	OT	JT
AG						
GN	.07					
MS	-.03	-.23***				
ED	.08	.21***	-.23***			
OT	.30***	.09	-.13*	.13*		
JT	-.03	-.04	-.02	.01	.11	
IN	.25***	.09	.00	-.10	.15*	.04

<sup>3</sup> <https://www.socscistatistics.com/pvalues/pearsondistribution.aspx>

Notes:

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

The diagonal reports the square root of the average variance extracted (AVE)

Legend: AG = Age; GN = Gender; MS = Marital Status, ED = Education, OT = Organizational tenure; JT = Job type; IN = Industry

**Table 4. Convergent Validity Summary and Construct Reliabilities**

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Psychological Contract Breach	0.930	0.956	0.878
Psychological Contract Violation	0.942	0.959	0.853
Exhaustion	0.927	0.945	0.775
Cynicism	0.738	0.883	0.791
Efficacy	0.881	0.910	0.627
TOI	0.753	0.890	0.802
TAI	0.871	0.921	0.795
Affective Commitment	0.921	0.944	0.809
Job Satisfaction	0.926	0.948	0.819

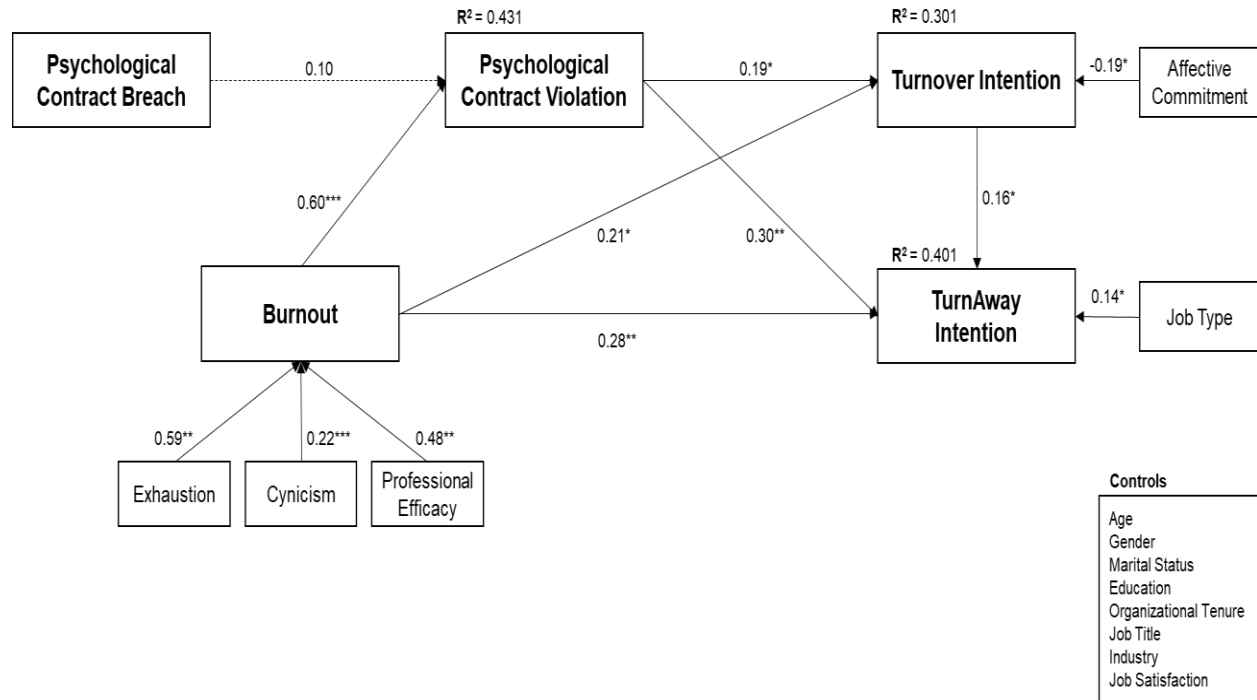
To check for multicollinearity, we computed the variance inflation factor (VIF) for each construct. As shown in Table 5, the VIF values ranged from 1.06 to 2.70, below the recommended threshold of 10 (Neter et al., 1990) and the more stringent threshold of 3.3 (Diamantopoulos & Siguaw, 2006).

**Table 5. Variance Inflation Factor**

Construct	Turnaway Intention	Turnover Intention	Psychological Contract Violation
Psychological Contract Breach			1.233
Psychological Contract Violation	1.923	1.867	
Burnout	2.431	2.367	1.233
Turnover Intention	1.428		
Turnaway Intention		1.428	
Age	1.195	1.193	
Gender	1.138	1.132	
Marital Status	1.184	1.181	
Education	1.179	1.179	
Organizational Tenure	1.184	1.182	
Job Type	1.068	1.063	
Industry	1.145	1.141	
Affective Commitment	2.483	2.436	
Job Satisfaction	2.642	2.632	

For burnout, which is a formative second-order construct, the path weights of each dimension signify the strength of the dimension's relationship to the higher-order construct. All three dimensions showed significant path weights for burnout (exhaustion  $\beta = .59$ ,  $p < .001$ ; cynicism  $\beta = .20$ ,  $p < .001$ ; professional inefficacy  $\beta = .48$ ,  $p < .001$ ). The significant path weights, reliability, discriminant and convergent validity of the first order-level (dimensions) suggest viewing burnout as a formative second-order construct in our research model was appropriate (Wetzels et al., 2009).

After assessing the measurement model, we then tested the structural model using bootstrap sampling (5,000 samples) to find the significance of the paths. Then, we ran the PLS algorithm, and the results are shown in Figure 2. Our structural model explained 43% of the variance in psychological contract violation, 30% of the variance in turnover intention, and 40% of the variance in turnaway intention. Contrary to the literature and expectation, the relationship between psychological contract breach and psychological contract violation was nonsignificant ( $\beta=.10, p=.11$ ). Hence, H1 was not supported. Psychological contract violation was positively related to turnover intention ( $\beta=.19, p<.05$ ) and turnaway intention ( $\beta=.30, p<.001$ ). Burnout was positively related to psychological contract violation ( $\beta = .60, p <.001$ ), turnover intention ( $\beta=.21, p<.01$ ), and turnaway intention ( $\beta=.28, p<.01$ ), and turnover intention were positively related to turnaway intention ( $\beta=.16, p<.05$ ). Thus, H2, H3, H4, H5, H6, and H7 are supported. For the control variables, only affective commitment negatively influenced turnover intention ( $\beta= -.19, p<.05$ ); and only job type positively influenced turnaway intention ( $\beta=.14, p<.05$ ).



Nonsignificant relationships are indicated by dashed lines.

Nonsignificant effects of the control variables are not shown for clarity and readability of the model.

\*p-value <.05; \*\*p-value <.01; \*\*\*p-value <.001

Figure 2. Results of Model Testing

### 4.1 Post-hoc Analysis

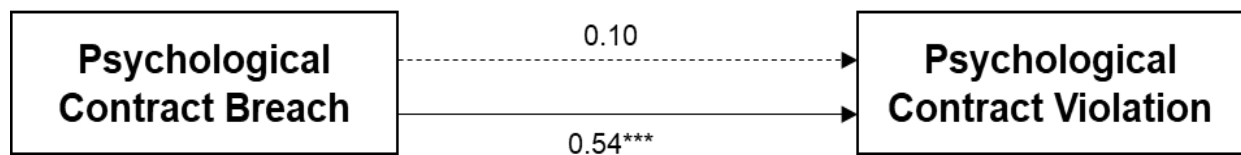
To address the nonsignificant relationship between psychological contract breach and psychological contract violation (H1), we pondered what factor(s) might be suppressing the emotional response to the assessment of a breach. A post-hoc test was performed for several reasons. First, from Table 3 we see a small but significant correlation between breach and violation (.36,  $p<.01$ ). Second, the subjective nature of psychological contracts suggests that IT professionals may associate different meanings to a perceived breach and may experience different levels of emotional intensity (violation) from the breach. Demographic characteristics, including age, gender, and marital status, have been found to be predictors of emotional exhaustion (e.g., Maslach et al., 2001). Besides, prior research has controlled for individual



attributes such as organizational tenure when testing psychological contract violation (e.g., Jamil et al., 2013; Suazo et al., 2005; Turnley & Feldman, 1999), and the IS workforce literature suggests that demographic characteristics can affect individuals' behaviors and perceptions (Igbaria & Siegel, 1992). Given the findings, we evaluate whether organizational tenure and psychological contract breach might interact to influence IT professionals' psychological contract violation. We also assess whether marital status and psychological contract breach might interact to influence IT professionals' psychological contract violation.

To shed light on the possible interaction between organizational tenure and psychological contract breach, we added organizational tenure as a moderator for the psychological contract breach-psychological contract violation relationship and re-ran the structural model. The moderating effect was nonsignificant.

We used the same procedure for marital status. First, we added marital status as a moderator for the psychological contract breach-psychological contract violation relationship and re-ran the model. The moderating effect was significant ( $\beta = .12$ ,  $p < .01$ ). To further examine the effects of married and non-married IT professionals, we split the sample based on marital status (162 married respondents, 85 non-married) and ran two separate models. Figure 3 shows the results of the post-hoc test. The results indicate that the psychological contract breach-psychological contract violation relationship is nonsignificant for married IT professionals, while the relationship is highly significant for their non-married counterparts ( $\beta = .54$ ,  $p < .001$ ).



#### Legend

----- Married IT professionals

\_\_\_\_\_ Non-married IT professionals

**Figure 3. Results of the Post-hoc Test**

We then calculated the difference of Cohen's (1988) effect size between the two groups for the psychological contract breach - psychological contract violation relationship ( $f^2$  difference between married and non-married =  $-0.49$ ,  $p = .002$ ). An effect size greater than 0.35 is considered large (Cohen 1988). Triangulating the results of the post-hoc tests we submit that marital status positively moderates the relationship between psychological contract breach and psychological contract violation, such that it is stronger for non-married IT professionals than for married IT professionals. Figure 4 depicts the effects of psychological contract breach on psychological contract violation for married (solid line) and non-married (dashed line) IT professionals.

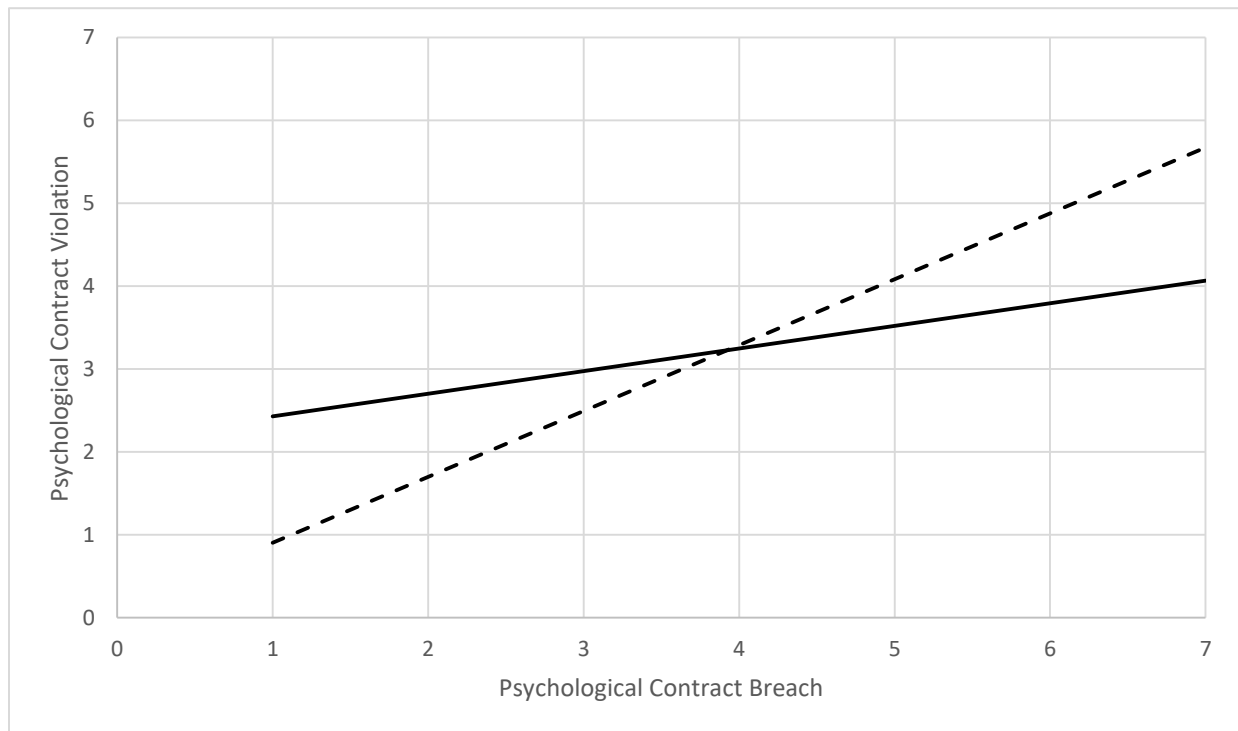


Figure 4. Marital Status Moderation Effect

## 5 Discussion

Concerns over retaining valued IT professionals have re-energized IS scholars in their study of job mobility and the development of recommendations on how to keep valued IT professionals within the organization and the profession. This study looked at the influence of psychological contracts and burnout on two forms of job mobility – turnover and turnaway intention. According to the Mayo Clinic<sup>4</sup> “Job burnout is a special type of work-related stress — a state of physical or emotional exhaustion that also involves a sense of reduced accomplishment and loss of personal identity. 'Burnout' isn't a medical diagnosis.” Thus, while burnout is not a medical condition, it does affect individuals emotionally, mentally, and physically and is a salient antecedent of job mobility.

We identify several theoretical contributions associated with this study. First, this study demonstrates the importance of conceptualizing and operationalizing burnout as a formative construct comprised of three reflective dimensions - exhaustion, cynicism, and professional efficacy. We show that burnout does not equal exhaustion - it is much more complex. While exhaustion is the most impactful dimension, other dimensions do contribute to burnout. Our study expands the body of knowledge regarding the burnout construct within the IS context and afforded the opportunity for stronger measurement and analysis (Petter et al., 2007) of this multidimensional construct.

The second theoretical implication of this study concerns the outcomes of burnout, specifically we found that the formative burnout construct impacts both turnover intention and turnaway intention for IT professionals. Prior turnover intention research within the IT field has focused on the basic model of turnover intention (e.g. Moore, 2000; Rutner et al., 2008). We found that not only does burnout influence two forms of job mobility, but that it more strongly influences turnaway intention than it does turnover intention. We encourage future explorations of turnaway intention to include the full multidimensional burnout construct (not just exhaustion) in their models.

The third theoretical implication of this study is that we opened the discussion of the idea that burnout is an antecedent to psychological contract violation. Prior research (Moquin et al., 2019) found exhaustion significantly influenced psychological contract breach; however, psychological contract violation was not

<sup>4</sup> (<https://www.mayoclinic.org/healthy-lifestyle/adult-health/in-depth/burnout/art-20046642>)

included in the study. Furthermore, only the exhaustion dimension was tested, not the formative three-dimensional burnout construct used in this study. We do not assert that the burnout-psychological contract violation relationship is not reciprocal, but rather that burnout has an influence on violation on its own. While we extend the theory of psychological contract by looking at the same phenomenon from organizational socialization and person-environment fit theories, additional research is needed to tease out the complexities of the interplay between psychological contract violation and burnout. Perhaps a future study could focus on these two constructs to determine the formal and theoretical mediation as well as the direct effects.<sup>5</sup> Future research should explore the direction of the causality in a longitudinal study to determine the initial antecedent (psychological contract violation or burnout). Clearly, more research is needed to identify the nuances and further refine the complex relationship between psychological contract violation and burnout.

The fourth theoretical implication concerns the relationship between psychological contract breach and violation. Even though we did not find that psychological contract breach leads to psychological contract violation for IT professionals, our post-hoc analysis provides evidence that the relationship is more complex. We explored the idea that IT professionals who have been with the organization longer would experience a stronger relationship between psychological contract breach and psychological contract violation, while "newer" IT professionals would have a weaker relationship. The findings of this study did not support organizational tenure as a moderator of the breach-violation relationship. Contrary to previous literature (e.g., Suazo et al., 2005; Jamil et al., 2013), time spent at an organization does not appear to notably influence the psychological contract breach-violation relationship within the IT context.

We also explored (post hoc) the idea that married IT professionals would experience a weaker relationship between psychological contract breach and psychological contract violation based on the rationale that married IT professionals may have a support system at home that allows them to discuss work issues and frustrations in contrast to their non-married counterparts. The relationship between breach and violation for non-married IT professionals was highly significant, but for married IT professionals the relationship was nonsignificant. It is feasible that married IT professionals can mitigate the impact of psychological contract breaches by their ability to openly discuss with their spouse and process potential employment breaches. Also, people in a committed relationship may be more experienced in terms of knowing how to remain committed through turbulent trials/chapters in life. Married IT professionals may also have a plethora of family circumstances (e.g. dual-career marriage, school-age children, extended family support) that may ultimately impact their job mobility and influence their perceptions of breaches. Non-married IT professionals may not have a support mechanism or family issues to consider that would impact their job mobility. Future research could employ a qualitative case study approach to consider married and non-married IT professionals longitudinally and retrospectively to provide further analysis and insight into this finding.

Another theoretical implication is based on the finding that psychological contract violation impacts turnaway intention more than turnover intention. We speculate this finding may be a function of our sample, which was comprised of IT professionals with over five years of IT-related work experience who had worked for more than one company. Given their time in the IT field, they have likely experienced both psychological contract breach and violation on more than one occasion. If these phenomena have been experienced in multiple organizational contexts, one might assume the behavior is a function of the profession (turnaway) not the organization (turnover). This study of IT professionals examining the influence of psychological contract violation on turnaway intention and turnover intention is a first step to exploring these relationships within the IT context. Future research should continue this line of inquiry with IT professionals having a variety of experience levels.

Finally, future research should also consider the changes in the nature of work, the changing labor market, as well as new forms of employment relationships developing as part of the gig economy. What impact do these environmental characteristics have on the idea of an employee-employer psychological contract? Does boundaryless work impact the relationship? Additionally, future research should investigate the context of the employee-employer relationship during times of uncertainties (i.e. mergers and acquisitions, organizational restructuring, global shelter-in-place). How might these uncertainties influence the nature of the employee-employer psychological contract is an interesting avenue to explore.

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<sup>5</sup> Thanks to an anonymous reviewer for offering this suggestion.

We now address the practical implications of our study. First is the understanding that burnout does not equal exhaustion - it is much more complex. As such, managers and HR professionals need to perhaps add practices aimed at attenuating cynicism and developing professional efficacy (e.g., career development plans, professional skills training). At a minimum, employee satisfaction surveys should be expanded to include the other dimensions of burnout to gain a more holistic picture.

A second and related implication for organizations and possibly the IT industry is the finding that burnout and psychological contract violation not only influence turnover intention but also, and more strongly, influence turnaway intention. With the predicted increases in global demand for IT personnel (Page, 2018), the industry cannot afford to lose valued workers to other fields. Previous research within the IS field has linked turnaway intention with a lack of career advancement (e.g., Joia et al., 2019), skill obsolescence (Joia & Mangia, 2017), job insecurity (Bellini et al., 2019), identification with the IT profession (Brooks et al., 2015), and role stressors (Lee et al., 1997). Looking across these variables, we see a strong connection to the relational and developmental needs of IT workers. Working in tandem, managers and HR professionals might develop practices (e.g., transparent job descriptions and career maps, individualized career development plans, cross-functional internships) aimed at developing IT professionals' immediate and long-term competencies. In addition, HR offerings of formal mentoring programs, support for professional networking, and support for participation in professional organizations can build employee commitment to the organization and the profession.

## 5.1 Limitations

As with any research, this research has limitations. First, we used self-reported data and collected both independent and dependent variables using the same survey instrument. Doing so raises the potential issue of common method bias (Doty & Glick, 1998). However, as previously stated in the Research Methodology section, we addressed this issue using a marker variable and correlation analysis and believe it was not a concern in this data. Second, when investigating the nonsignificant psychological contract breach – psychological contract violation relationship, we had to split the dataset based on marital status. Even though we found support for the moderating effect of marital status on that relationship, we are cautious about generalizing our findings due to the small sample size (N=85). Third, we modeled burnout as a precursor of psychological contract violation. As in any research employing a survey instrument, we cannot determine the exact causality of the burnout – psychological contract violation relationship. We highlighted that the two constructs are positively related, but only by employing a longitudinal or experimental study can we uncover the specific causal relationship. Last, we used turnover and turnaway *intention*, not actual turnover and turnaway *behavior*. We acknowledge that while an adequate proxy, they are not the same, and there may be intervening constructs between the intention and the actual behavior.

## 6 Conclusion

It is time to move beyond the 'basic turnover model' to discover what other factors might help predict IT professional turnover and turnaway intention. This research extends the body of knowledge by incorporating psychological contract and burnout theories as antecedents of IT professional turnaway and turnover intention. More specifically, exploring burnout as a multidimensional construct suggests that each dimension contributes to the job mobility story. Future research on IT professional turnover intention should include all of the dimensions of burnout and not rely solely on the exhaustion dimension. Furthermore, we were able to show that burnout, as a formative construct, impacts IT professional turnaway intention more than IT professional turnover intention. We contribute to the conversation about the heterogeneity of the IT professionals by shedding light on the moderating effect of marital status on the psychological contract breach – psychological contract violation relationship. This finding can aid human resource departments with finer grained strategies for retaining IT professionals when a psychological contract breach occurs by designing programs, such as counseling services, addressing the needs of employees across any marital status within local laws and regulations.

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## Appendix A: Measures, Scales, and Sources

**Table A1. Measures, Scales, and Sources**

Construct	Source (Dimension)	Items
Affective Commitment <sup>a</sup>	Mowday et al., 1982	<ol style="list-style-type: none"> <li>1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.</li> <li>2. I am proud to tell others that I am part of this organization.</li> <li>3. I really care about the fate of this organization.</li> <li>4. I really feel that I belong in this organization.</li> <li>5. This organization has a great deal of personal meaning for me.</li> </ol>
Burnout <sup>b</sup>	Maslach, Jackson, & Leiter, 1996  (Emotional Exhaustion)	<ol style="list-style-type: none"> <li>1. I feel emotionally drained from my work.</li> <li>2. I feel used up at the end of the workday.</li> <li>3. I feel fatigued when I get up in the morning and have to face another day on the job.</li> <li>4. Working all day is really a strain for me.</li> <li>5. I feel burned out from my work.</li> </ol>
	Maslach, Jackson, & Leiter, 1996  (Professional Efficacy)	<ol style="list-style-type: none"> <li>1. I can effectively solve the problems that arise in my work. (R)</li> <li>2. I feel I am making an effective contribution to what this organization does. (R)</li> <li>3. In my opinion, I am good at my job. (R)</li> <li>4. I feel exhilarated when I accomplish something at work. (R)</li> <li>5. I have accomplished many worthwhile things in this job. (R)</li> <li>6. At my work, I feel confident that I am effective at getting things done (R)</li> </ol>
	Maslach, Jackson, & Leiter, 1996  (Cynicism)	<ol style="list-style-type: none"> <li>1. I have become less interested in my work since I started this job.</li> <li>2. I have become less enthusiastic about my work.</li> <li>3. I just want to do my job and not be bothered. *</li> <li>4. I have become more cynical about whether my work contributes anything.</li> <li>5. I doubt the significance of my work.</li> </ol>
Job Satisfaction <sup>a</sup>	Hackman & Oldham, 1980	<ol style="list-style-type: none"> <li>1. Generally speaking, I am very satisfied with this job.</li> <li>2. Overall, I am content with this job.</li> <li>3. I am generally satisfied with the kind of work I do on this job.</li> <li>4. Overall, I feel satisfied with this job.</li> </ol>
Psychological Contract Breach <sup>a</sup>	Robinson & Morrison, 2000	<ol style="list-style-type: none"> <li>1. Almost all the promises made by my employer during recruitment have been kept so far. (R)</li> <li>2. I feel that my employer has come through in fulfilling the promises made to me when I was hired. (R)</li> <li>3. So far, my employer has done an excellent job of fulfilling its promises to me. (R)</li> <li>4. I have not received everything promised to me in exchange for my contributions. (R)</li> <li>5. My employer has broken many of its promises to me even though I've upheld my side of the deal. (R)</li> </ol>
Psychological Contract Violation <sup>a</sup>	Robinson & Morrison, 2000	<ol style="list-style-type: none"> <li>1. I feel a great deal of anger toward my organization.</li> <li>2. I feel betrayed by my organization.</li> <li>3. I feel that my organization has violated the contract between us.</li> <li>4. I feel extremely frustrated by how I have been treated by my organization.</li> </ol>



**Table A1. Measures, Scales, and Sources continued**

<b>Construct</b>	<b>Source (Dimension)</b>	<b>Items</b>
Turnaway Intention <sup>a</sup>	Meyer et al., 1993	Think about your place in the IT profession... 1. I intend to continue working in the IT profession until I retire. (R)* 2. I expect to work in a career other than IT sometime in the future. * 3. I frequently think about getting out of the IT profession. 4. It is likely that I will soon explore career opportunities outside of the IT profession.
Turnover Intention <sup>a</sup>	Moore, 2000	1. It is likely I will be working for this organization this time next year. (R) 2. It is likely I will take steps during the next year to secure a job at a different organization. * 3. I will be working with this organization five years from now. (R) 4. I will probably look for a job at a different organization in the next year. *
* item dropped		
<b>Scales</b>		
(a) 1 = strongly agree; 4 = neither agree nor disagree; 7 = strongly disagree		
(b) 0 = never; 1 = a few times a year or less; 2 = once a month or less; 3 = a few times a month; 4 = once a week; 5 = a few times a week; 6 = daily)		

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