



Perceived Red Tape and Precursors of Turnover: the Roles of Work Engagement and Career Adaptability

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Abstract

Drawing on job demands-resources theory, we propose that perceived red tape, as a hindrance job demand, triggers attitudinal and behavioral precursors of turnover in employees (turnover intentions and job search behaviors) by reducing their work engagement. In addition, we hypothesize that career adaptability, as a personal resource, buffers the detrimental effects of perceived red tape. In Study 1, three-wave data collected from employees ($N=202$) working in Tanzanian public sector organizations supports the finding that work engagement mediates the effect of red tape on turnover intentions. Study 2 confirms this mediation, using data ($N=405$) collected at three time points from a Chinese private organization, further verifying the mediating role of work engagement in the effect of red tape on job search behaviors. Supporting the moderating role of career adaptability, Study 2 also found that career adaptability attenuated the influence of red tape on work engagement and, subsequently, on turnover intentions and job search behaviors. Our article theoretically and empirically contributes to the understanding of how and when perceived red tape in organizations leads employees to consider leaving and prepare to leave.

Keywords Perceived red tape · Work engagement · Turnover intentions · Job search behaviors · Career adaptability

Red tape refers to the formal rules, policies, regulations, and procedures in organizations that are burdensome, ineffective, and redundant or unnecessary in a way that prevents them from serving the intended purposes (Borrey, 2016; Bozeman, 1993, 2000). Although previous studies have suggested that red tape is more prevalent in public sector organizations (Pandey & Scott, 2002), it is also found in private sector organizations, especially in large organizations with multiple levels of management (Bozeman et al., 1992; De Jong & Van Witteloostuijn, 2015; George et al., 2021). Red tape can originate from external forces, such as government regulations, or internal sources, such as rules, policies, and procedures imposed by senior management to maintain oversight

of employees at lower levels of the organization (Walker & Brewer, 2008). Regardless of its origin, red tape is costly to organizations, largely because it slows down decision-making and stifles innovation, and employees' perceptions of red tape can negatively impact their experiences, attitudes, and behaviors at work (Blom, 2020; Jacobsen & Jakobsen, 2018). For example, research has demonstrated that perceived red tape is negatively related to desirable work outcomes such as job satisfaction (Giauque et al., 2012; Steijn & van der Voet, 2019) and job performance (Van Loon, 2017), and positively related to undesirable employee outcomes, such as stress, turnover intention, and withdrawal behavior (Quratulain & Khan, 2015).

The literature suggests that the prevalence of formalization, centralization, and hierarchy makes red tape nearly unavoidable, particularly in large organizations (Kaufmann et al., 2019). As such, efforts devoted solely to reducing employees' perceptions of red tape might not be sufficient, raising an ongoing need to identify how to minimize the harm caused by perceived red tape (Cooke et al., 2019). To do this, we need a better understanding of how perceived red tape can influence employee outcomes and identify the conditions under which this influence might weaken. This study, therefore, explores the process through which

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employees respond to perceived red tape in the form of exhibiting turnover precursors and investigates the factors that attenuate such negative responses. We argue that perceived red tape triggers turnover precursors by hindering employees from being engaged at work. Moreover, career adaptability, defined as individuals' self-regulatory psychological resources in handling career and work tasks and challenges (Savickas & Porfeli, 2012), buffers these undesirable effects of perceived red tape.

We focus on turnover precursors (e.g., turnover intentions and job search behaviors for external employment opportunities) because prior research indicates that, among various psychological (e.g., stress) and behavioral (work withdrawal) outcomes, employees' consideration of leaving is most closely related to perceived red tape (Quratulain & Khan, 2015). The literature also suggests that such turnover considerations are the most powerful predictors of actual turnover, which organizations usually strive to control (Abelson & Baysinger, 1984).

Although previous studies have examined the relationship between perceived red tape and intended turnover (e.g., Brunetto et al., 2017; Giauque et al., 2019; Quratulain & Khan, 2015), there are several important research gaps. First, previous research has mainly focused on the attitudinal precursor of turnover (e.g., turnover intentions/cognitions) and neglected behavioral precursors. However, since both attitude (e.g., thinking of quitting) and behavior (e.g., job search) constitute critical components of the voluntary turnover process (Lee & Mitchell, 1994; Mobley et al., 1979), the neglect of behavioral precursors might lead to premature or misleading conclusions regarding the role of perceived red tape in eliciting turnover considerations. Second, empirical research is yet to clearly identify the process or mechanism through which perceived red tape prompts turnover precursors. While Quratulain and Khan (2015) identified resigned satisfaction as a mediator in a single-survey study, other studies did not find (Giauque et al., 2019) or explicitly examine (Brunetto et al., 2017; Shim et al., 2017) a mediation mechanism.

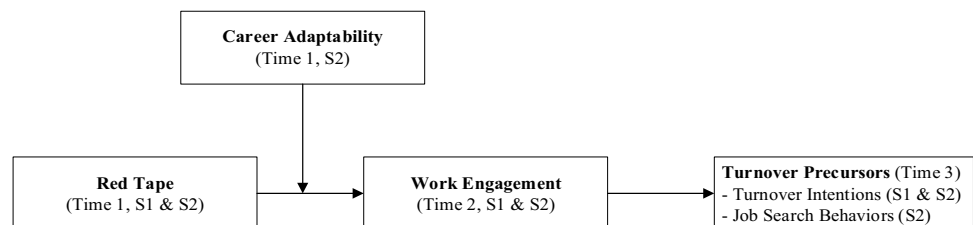
Furthermore, while the theoretical emphasis on the roles of developable individual attributes (e.g., personal strengths) in coping with perceived red tape is salient (e.g., Pandey & Kingsley, 2000; Riccucci, 1995), empirical investigations in this area are sparse. The limited work that has examined the attribute-based moderators of perceived red tape has focused

extensively on stable personality traits that are less developable, controllable, or changeable among adults (e.g., Quratulain & Khan, 2015). However, despite the prevalent system-centered view of perceived red tape by which individuals are subject to external forces beyond their control (Pandey & Kingsley, 2000), researchers argue that personal resources or capabilities largely determine employees' effectiveness in coping with perceived red tape. Consequently, it is critical to examine the roles of these resources due to their relative manipulability or trainability (Lewis, 1980; Riccucci, 1995).

To advance these areas, using job demands-resources (JD-R) theory (Demerouti et al., 2001), we test how and under what conditions perceived red tape leads to employees' consideration of leaving the organization (see Fig. 1). We argue that perceived red tape serves as a hindrance job demand that reduces employees' work engagement, which is a key component of the JD-R theory (Bakker et al., 2014). It refers to a positive affective-motivational state reflected by high energy levels and involvement at work (Schmitt et al., 2016) and consequently heightens their intended turnover, manifested as turnover intentions and job search behaviors. Since the JD-R theory also highlights the importance of resources in buffering against hindrance demands (Bakker et al., 2014; Demerouti et al., 2001), we further contend that employees' career adaptability as a personal resource can attenuate the negative effects of perceived red tape. Career adaptability was chosen because perceived red tape can create stressful demands (Ponomarev & Boardman, 2011), and career adaptability can be theoretically situated in the JD-R model as a malleable personal resource that helps deal with these demands within and across jobs in one's career trajectory. By integrating JD-R and career construction theories (Savickas, 2005), we anticipate that as employees' career adaptability increases, they are better able to manage demands related to perceived red tape and are thus less likely to be disengaged at work or consider leaving.

In summary, we examine the relationships between perceived red tape and turnover precursors, focusing on the mediating role of work engagement and the moderating role of career adaptability. Our research makes important theoretical and empirical contributions. First, extending prior studies that examined the relationships between perceived red tape and attitudinal/cognitive signs of turnover (e.g., Brunetto et al., 2017; Quratulain & Khan, 2015), we broaden

Fig. 1 Proposed research model.
Note: S1 = Study 1 (Tanzania);
S2 = Study 2 (China)



the focus to include a behavioral precursor of turnover (job search behaviors). Second, we highlight reduced work engagement as a key mediation mechanism that explains why perceived red tape prompts both attitudinal and behavioral precursors of turnover. This extends prior research, which limited the focus on mediators mirroring work stress and satisfaction (e.g., Giauque et al., 2019; Quratulain & Khan, 2015). Verifying this mechanism in two distinct samples, our research is the first empirical attempt to reveal that the negative influence of perceived red tape on turnover intentions through work engagement-associated mechanisms is consistent across private and public sector organizations in two emerging economies. Third, this research enhances the understanding of how career-focused psychological resources weaken the negative influence of perceived red tape on turnover precursors by regulating the cognitive and emotional pressure imposed by perceived red tape. Identifying career adaptability as a boundary condition supplements prior research (e.g., Quratulain & Khan, 2015), which has only examined the role of personality when testing individual difference moderators. Altogether, we extend the JD-R theory (Demerouti et al., 2001) by confirming perceived red tape acts as a hindrance demand and career adaptability as a personal resource in driving employees' turnover-related responses.

Literature Review and Hypothesis Development

Perceived Red Tape in Organizations

The term “red tape” originates from the common practice in many European countries between the sixteenth and eighteenth centuries to seal important legal documents and dossiers that required attention with a red ribbon or tape (Dickson, 2015; Kaufman, 1977). This contrasted them from less important documents held together by an ordinary string. The red tape made the documents difficult to open, which led to its reputation for causing unnecessary work (Dickson, 2015). Today, red tape refers to the “rules, regulations, and procedures that remain in force and entail a compliance burden, but do not advance the legitimate purposes the rules were intended to serve” (Bozeman, 2000, p. 12). In other words, not all formal rules, policies, regulations, and procedures but only those that are burdensome, unnecessary, or ineffective are red tape (Borry, 2016; Bozeman, 2000). Real-world examples of red tape constitute asking researchers who do not deal with any laboratory animals to certify in their research ethics applications that they do not mistreat them despite their nonexistence, overly complex forms that require previously submitted information to complete, or having too many individuals and committees repeatedly

approve minor tasks (Bozeman & Feeney, 2011; Bozeman & Youtie, 2020).

Red tape can be distinguished from other related constructs. Bozeman and Youtie (2020) underscored the importance of differentiating red tape from administrative burden. While red tape does not include rules, regulations, and policies exerting a compliance burden with a legitimate purpose (Bozeman, 2000), administrative burden entails a compliance burden that may be recompensed by other benefits (Bozeman & Youtie, 2020; Moynihan et al., 2014). For example, some employees might be annoyed by extensive risk assessment requirements; however, when these processes reduce accidental loss for the organization, the administrative burden for an individual employee might be lower than the economic benefits for the organization. If the risk assessment requires unnecessary paperwork evaluating a risk that does not exist (such as for the nonexistent lab animals mentioned above), this would fall into the category of red tape.

Red tape also differs from workplace daily hassles—“minor events that represent a source of irritation for individuals” (Otis & Pelletier, 2005, p. 2196). “Daily hassles” is a more generic and broad term. It includes a wide range of stressors (e.g., arguments with coworkers and negative feedback from supervisors) beyond pressure that may be associated with the rules, policies, and procedures classified as red tape. Additionally, red tape is distinctive from a lack of autonomy, which means that individuals are not given the freedom, independence, or discretion to perform their job tasks (Morgeson & Humphrey, 2006). Although red tape denotes burdensome, unnecessary, or ineffective policies and procedures, it does not necessarily restrict one's freedom or discretion to make decisions or choose one's preferred ways of doing things. For example, burdensome policies and procedures may lead to project delays, but this may not mean that employees cannot make decisions autonomously when designing the project. Furthermore, red tape can be differentiated from micromanagement. While micromanagement, as an overbearing management style representing excessive control over details, emphasizes the roles of leaders or managers (Hernández et al., 2020), red tape is more about the rules, policies, and procedures existing in the organizational system.

In general, red tape results from the persistence of policies and procedures that do not serve their purpose; they have either never been functional or have lost their intended functionality (Bozeman & Feeney, 2011). This perspective emphasizes the actual existence of red tape in organizations, and thus reflects an objective view of red tape (Jacobsen & Jakobsen, 2018). However, while acknowledging this objective aspect of red tape, many scholars believe that perceptions of red tape tend to be a more direct trigger for employees' reactions than the objective bureaucratic truth

(i.e., the actual existence of red tape) (Pandey & Kingsley, 2000; Pandey & Scott, 2002). For example, Kaufman (1977, p. 5) suggests that “it is people’s *perceptions* of government constraints, not objective measures of reasonableness, that lead them to attack constraints as red tape.” Borry (2016, p. 576) further argues that “even if a rule is not red tape—as in a truly burdensome, ineffective rule—but is perceived as such, the way in which it is handled and implemented by employees or encountered and perceived by clients may influence the organization in a similar manner as objective red tape.” This emphasis on the perceptual side has led almost all empirical research to measure red tape from a subjective rather than objective perspective (Jacobsen & Jakobsen, 2018).

We adopt a subjective view of red tape, and define perceived red tape as employees’ impressions that the formalized policies and procedures are harmful to organizational performance because they are burdensome, unnecessary, and/or ineffective (Borry, 2016; Jacobsen & Jakobsen, 2018). Emphasizing a perceptual phenomenon that differentiates from the focus on actual burdens of rules, policies, and procedures (Bozeman, 1993), this definition aligns with Kaufman’s (1977) interpretation of red tape as varying perceptions of the same rules. Thus, it is not surprising that one person might perceive a rule as red tape, while another might consider it as protecting critical values. As Jacobsen and Jakobsen explained, when rules are perceived to have harmful effects, it does not mean that they are actually producing negative effects; there is a possibility that an employee perceives rules as harmful when this is not the case. While red tape is always considered to be associated with negative effects (Blom, 2020), focusing on *perceived* red tape avoids “the tautological fallacy of viewing red tape as rules with a negative impact on performance” (Jacobsen & Jakobsen, 2018, p. 26) and thus helps separate rules from their effects. Furthermore, the perceptual side of red tape captures an entire set of rules, irrespective of their origins or specific focus (Pandey & Kingsley, 2000).

Perceived Red Tape and Signs of Employee Turnover

In the present research, we examine whether perceived red tape is positively related to employee turnover precursors. We focus on turnover intentions and job search behaviors because they capture the attitudinal and behavioral precursors to actual turnover. We draw on the JD-R theory (Demerouti et al., 2001) to explain the links between perceived red tape and these two turnover precursors. The JD-R theory highlights that job demands are a key source of employee stress at work. These demands are defined as physical, psychological, social, or organizational aspects of a job that require sustained emotional and cognitive attention and are associated with significant psychological or physical costs

for employees. In examining the influence of job demands, the literature differentiates between challenge and hindrance job demands (Bakker et al., 2014). Challenge demands denote the demands or challenges that carry opportunities for personal growth, development, and rewards (Van Laethem et al., 2019). In contrast, hindrance demands refer to stressors that “involve excessive or undesirable constraints that interfere with or hinder an individual’s ability to achieve valued goals” (Cavanaugh et al., 2000, p. 67). Due to the personal costs, undesirability, and stress associated with perceived red tape (Giauque et al., 2012; Quratulain & Khan, 2015), we view perceived red tape as a hindrance job demand that acts as a barrier to employees getting their job done and making decisions in a timely manner.

Based on the JD-R theory, we argue that by placing a cognitive and emotional burden on employees, hindrance job demands such as perceived red tape lead people to adopt a passive or disengaged style of coping (e.g., preparing to leave). As Jensen et al. (2013) suggest, individuals facing workplace demands that overwhelm their control tend to separate themselves from such demands by leaving the current workplace as a coping strategy. In the case of perceived red tape, its undesirable and stressful features may limit the extent to which employees invest resources in their present job and contemplate working in an organization where there is less red tape. Such a cognitive contemplation of working elsewhere is a manifestation of turnover intentions (Irving et al., 1997). Perceived red tape might also prompt employees to prepare behaviorally to leave their job by searching for new employment opportunities with fewer cognitive and emotional demands. In support of such views, empirical studies have generally found that hindrance demands (perceived red tape as a component) are positively related to turnover intentions of employees in both the public and private sectors (Babakus et al., 2017; Brunetto et al., 2017; Shim et al., 2017) as well as searching for jobs externally (Cavanaugh et al., 2000). This line of reasoning leads to:

Hypothesis 1: Perceived red tape is positively related to turnover intentions (H1a) and job search behaviors (H1b).

Work Engagement as a Mediator

Empirical research is inconclusive about the processes through which perceived red tape prompts turnover precursors. Most studies have either failed to confirm (Giauque et al., 2019) or have not explicitly tested (Brunetto et al., 2017; Shim et al., 2017) the mediation mechanism of these relationships. For example, Giauque et al. (2019) found that work stress did not mediate the relationship between perceived red tape and turnover intention among employees. While Shim et al. (2017) detected a stress-related mediator (work exhaustion) between job demands and turnover

intentions, it is difficult to confirm whether this mechanism holds for red tape, given that it was only a small component of overall job demands. Quratulain and Khan (2015) identified a mechanism (i.e., resigned satisfaction) in a single self-report survey in Pakistan. Given these limitations and contradictions in the literature, further exploration is warranted to better understand the mediation mechanism between perceived red tape and turnover precursors.

Drawing on the JD-R theory, we contend that perceived red tape leads to employees' passive cognitive and behavioral coping (e.g., turnover intentions and job search behaviors) because it reduces employees' work engagement. We conceptualize work engagement as a positive psychological state that is characterized by vigor and dedication at work (Schmitt et al., 2016). Vigor involves an abundance of energy, motivation, and mental resilience while working, the willingness to devote efforts at work, and persistence (Bakker et al., 2014). Dedication refers to feelings of pride, meaning, significance, enthusiasm, challenge, and inspiration concerning one's work (Schaufeli & Bakker, 2004). Although Schaufeli et al. (2002) originally conceptualized work engagement as a combination of vigor, dedication, and absorption (i.e., being completely concentrated and happily immersed at work whereby time elapses rapidly), recent research suggests that absorption is a consequence rather than a core aspect of work engagement (Salanova & Schaufeli, 2008; Schmitt et al., 2016). Work engagement, comprising vigor and dedication, manifests in high energy levels at work and strong identification with work (Bakker et al., 2014; Demerouti et al., 2010). In the following sections, we theorize on the relationship between perceived red tape and work engagement, followed by the relationship between work engagement and turnover precursors (i.e., turnover intentions and job search behaviors).

As highlighted earlier, perceived red tape is a hindrance demand that distracts an employee from paying attention at work and hampers their goals, rather than acting as a challenge demand that can ultimately generate personal gains. Drawing on the JD-R theory, we argue that perceived red tape is detrimental to an employee's positive psychological state at work as captured by their work engagement for a number of reasons. First, perceived red tape creates unbeneficial compliance burdens that hinder employees from achieving their goals (Moynihan & Pandey, 2007). As a hindrance stressor, such a burden leads an employee to exert substantial effort and drains their energy (personal resources) over time (Sonnentag et al., 2010). As a result, employees are likely to enter a spiral of energy loss in which they experience heightened difficulties in obtaining further personal resources (e.g., vigor and energy) that are needed for effort reinvestment, goal attainment, and persistence at work (Sonntag et al., 2010; Xanthopoulou et al., 2009). Second, due to its unnecessary nature and

ineffectiveness, red tape, once perceived by employees, hinders them from focusing on and being dedicated to their work. As DeHart-Davis and Pandey (2005) argue, when employees feel the need to deal with unnecessary or ineffective procedures that impede work progress, they usually struggle with identifying the significance and positive meaning of their jobs and maintaining enthusiasm about their work. In other words, these perspectives suggest that perceived red tape can potentially diminish workers' vigor and dedication, which collectively capture their work engagement (Schmitt et al., 2016). Supporting this assertion, a cross-sectional study found a negative relation between perceived red tape and work engagement (Borst, 2018). Given these theoretical and empirical considerations, we argue that by placing cognitive and emotional pressure on employees, perceived red tape acts as a hindrance demand, leading employees to be less engaged at work.

We further contend that the reduced work engagement that results from perceived red tape leads employees to consider leaving their organizations. The engagement literature emphasizes that more engaged employees usually devote more time and energy and are more psychologically involved in their work (Gabel Shemueli et al., 2016; Schaufeli et al., 2002). Halbesleben and Wheeler (2008) echo this by arguing that the relationship between work engagement and turnover is largely derived from the levels of energy investment and dedication to the work. They explain that it is difficult for highly engaged employees to detach from the current job given that they have invested high levels of energy and other personal resources, and developed a high level of identification with the work. Due to such a psychological attachment and identification, highly engaged employees may be reluctant to leave the job. Conversely, when employees are less engaged at work because of perceived red tape, there is a greater chance that they will consider leaving. For example, they might exhibit higher turnover intentions and search for external jobs where they could be less burdened by perceived red tape. In support of such an assertion, earlier meta-analytical studies (e.g., Halbesleben, 2010) and growing empirical research (Brunetto et al., 2012; Gabel Shemueli et al., 2016; Schaufeli & Bakker, 2004) have reported a negative association between work engagement and turnover intentions.

Taken together, the arguments above suggest a negative impact of perceived red tape on work engagement as well as a negative influence of work engagement on the precursors of leaving (e.g., turnover intentions and job search behaviors). As such, we propose:

Hypothesis 2: Work engagement mediates the relationships between perceived red tape and turnover intentions (H2a) and job search behaviors (H2b).

Career Adaptability as a Moderator

The JD-R theory further highlights the role played by individuals' work-related resources in interacting with job demands to influence employee outcomes (Bakker et al., 2014; Demerouti et al., 2001), highlighting that such resources may mitigate (buffer) the undesirable influence of job demands on employees' psychological states (Xanthopoulou et al., 2007). On this basis, the extent to which red tape as a hindrance demand can affect employees' work engagement and, in turn, foster turnover precursors, may be conditional on the level of resources they possess. Although the JD-R theory initially underscores the interaction between job demands and job resources that emanate from the job context, researchers have increasingly focused on the functions of personal resources in buffering the influence of job demands (Van Yperen & Snijders, 2000). Acknowledging this growing focus, Bakker et al. (2014) conclude that the introduction of personal resources in the JD-R model is an important extension of the original theory. These personal resources involve characteristics related to positive self-evaluation, resiliency, perceived ability to control and influence environments, and other attributes boosting personal growth and development (Hobfoll et al., 2003; Xanthopoulou et al., 2007).

We argue that career adaptability as a personal resource buffers the effects of hindrance demands such as perceived red tape on work engagement. Career construction theory proposes that individuals' adaptive resources, particularly career adaptability, are essential in navigating goals, psychological states, and work and career behaviors (Savickas, 2005). Career adaptability refers to a set of personal psychological resources or capabilities that help individuals deal with the challenges they face in their careers (Porfeli & Savickas, 2012). It consists of diverse self-regulatory capabilities categorized into career concerns (concern about one's future career), career control (control over one's career development), career curiosity (curiosity in exploring one's career options), and career confidence (confidence in managing one's career). In the present research, we suggest that career adaptability acts as a set of personal resources that help people psychologically adjust to and deal with the challenges in their work environments that are perceived as red tape-laden.

Career adaptability is considered a moderator of perceived red tape for several reasons. First, according to the JD-R theory (Demerouti et al., 2001, p. 501), a resource is characterized by its ability to do any of three aspects: "(a) be functional in achieving work goals; (b) reduce job demands at the associated physiological and psychological costs; (c) stimulate personal growth and development." Career adaptability is a construct with these characteristics. Since career adaptability involves individuals' capabilities to

be concerned with, control, and explore problems, solutions, and growth opportunities in current and future work- and career-related settings (Savickas, 2005), it likely facilitates goal pursuit, the management of demands, and personal development. Supporting this view, research has shown that high career adaptability allows people to effectively handle stressors, such as career barriers (Jiang et al., 2018; Urbanaviciute et al., 2016) and challenging environmental changes at work (Zhang, 2019), and enables them to proactively develop skills and work out plans for goal achievement (e.g., Taber & Blankemeyer, 2015). Second, as mentioned earlier, career adaptability is a malleable attribute that can be enhanced through training and interventions (Klehe et al., 2012), making it a personal resource that is practically valuable to be featured in the JD-R model. This malleable nature also enables the focus on career adaptability to extend and complement the existing moderators of red tape-laden job demands, which are still largely limited to stable, trait-like attributes (e.g., Potipiroon & Faerman, 2016; Quratulain & Khan, 2015). Third, as highlighted by career construction theory, as a core resource that relates to one's career trajectory, career adaptability closely directs, and facilitates individuals' attitudes and behaviors within and across various jobs in this trajectory (Rudolph et al., 2017a, 2017b; Savickas, 2005). Consistent with this perspective, empirical evidence demonstrates that career adaptability is a positive antecedent of career (e.g., career identity and employability) and job-related (e.g., job stress, work performance, and affective organizational commitment) outcomes (Ito & Brotheridge, 2005; Rudolph et al., 2017a, 2017b). Since we concentrate on the influence of a job demand (perceived red tape) on employee outcomes, which has implications for not only within-job experience (i.e., work engagement) but also across-job possibilities (i.e., turnover precursors), career adaptability should be a highly relevant personal resource for this research.

Career adaptability is a higher-order construct in which its four first-order constituents (concern, control, curiosity, and confidence) combine to represent adaptability as a holistic variable at the second-order level (Savickas & Porfeli, 2012). It is the joint rather than the individual efforts of these constituents or facets that form the integrated construct of career adaptability (Jiang, 2017). Based on previous research, focusing on individual facets of a higher-order construct, such as career adaptability, can possibly confound the observation of the relationships between this construct and other variables (Diamantopoulos et al., 2008; Jiang, 2017). With these considerations, we follow recent studies (e.g., Amarnani et al., 2020; Newman et al., 2021) to concentrate on the global construct of career adaptability rather than its individual facets.

As stated earlier, perceived red tape hinders work engagement because it places a compliance burden that depletes

energy and as unnecessary, ineffective rules and regulations offer little positive incentive for individuals to be dedicated to or identify with their work. According to career construction theory (Savickas, 2005), individuals with high levels of career adaptability are equipped with strong self-regulatory capabilities (e.g., career concern, control, curiosity, and confidence) that enable them to stay positive in undesirable situations (Klehe et al., 2012). As such, their work engagement, reflected by vigor and dedication, might suffer less from hindrance demands such as perceived red tape. For example, due to higher confidence in resolving career-related challenges and perceived control over their careers (Savickas & Porfeli, 2012), these individuals may view the burdensome duties caused by perceived red tape as manageable, controllable, and regulatable. Thus, even though the compliance burden involved in red tape might consume energy, they are likely to recover from the associated hindrance stressors more quickly and maintain a subjective sense of vigor.

In addition, strong vocational capabilities in looking ahead to the future (concern) and exploring potential (curiosity) usually shape a firm belief in an employee's mind about what to do and where to go in their work and career, no matter how unfavorable the environment might be (Savickas & Porfeli, 2012). In this case, while perceived red tape (e.g., perceived unnecessary and ineffective procedures) can, to some extent, distract employees with high career adaptability from their work, they can still find it meaningful to be dedicated to their job given their internalized work and vocational interest fostered by high-level career concern and curiosity. In contrast, individuals with low levels of career adaptability possess a limited number of self-regulatory resources necessary for dealing with hindrance stressors. When distracted by perceived red tape, they might not be able to recover their energy or vigor from compliance burdens as quickly as those with high career adaptability or easily find positive meaning in their dedication to work. For employees with lower career adaptability, the cognitive demands of perceived red tape are more likely to prevent them from being engaged at work.

Hypothesis 3: Career adaptability moderates the effect of perceived red tape on work engagement, such that this effect is less negative when career adaptability is higher.

Moderated Mediation

Our earlier arguments predict that perceived red tape, serving as a hindrance job demand, can reduce employees' work engagement. Since less engaged employees tend to be less attached to and identified with the work, they may be more likely to consider leaving the organization. In addition, we have proposed that because employees with higher career adaptability possess stronger abilities in dealing with career

and work pressures, hindrance demands or stressors, including perceived red tape, may not be an unresolvable threat for them to be engaged at work. As a result, their work engagement, which is less impacted by perceived red tape, may be less likely to prompt them to contemplate leaving in either cognitive (turnover intentions) or behavioral (job search behaviors) forms. These propositions suggest a conditional indirect effect (Hayes, 2013), which denotes that the strength of the mediation mechanism of work engagement underlying the positive effects of perceived red tape on precursors of turnover varies across the levels of the moderator, career adaptability. Combining our arguments about mediation and moderation, we further posit that perceived red tape interacts with career adaptability to influence employees' considerations of leaving through affecting their work engagement. Specifically, we expect that career adaptability will attenuate the positive, indirect effects of perceived red tape on turnover intentions and job search behaviors via work engagement.

Hypothesis 4: Career adaptability moderates the indirect effects of perceived red tape on turnover intentions and job search behaviors via work engagement such that these indirect effects will be less positive when career adaptability is higher.

Overview of Studies

We conducted two studies to test the proposed hypotheses. Study 1 used time-lagged data collected from the Tanzanian public sector to perform an initial test of the relationships among red tape, work engagement, and turnover intentions. To test the model using a more complete dataset that includes all research variables, we conducted Study 2, in which we collected time-lagged data from a Chinese private sector organization. In Study 2, we demonstrate the generalizability of Study 1 findings across two different cultures. Additionally, the data collected in Study 2 allows us to test the moderating role of career adaptability and to expand turnover precursors beyond turnover intentions (i.e., to include job search behaviors).

Study 1

Sample and Procedure

Data were collected from nine public schools and educational authorities located in the cities of Dar-es-Salaam, Dodoma, and Morogoro in Tanzania. We approached these organizations to access their employees, who were primary and secondary school teachers and school administrators.

Before the data collection, we had informal conversations with the management to learn about the context of the organizations and obtain approval to survey their employees. All employees were assured that participation was entirely voluntary and that their individual responses were confidential and would not be shared with their organizations. Data were collected through paper-based questionnaires in three phases, and the participants provided their informed consent. To ensure confidentiality, all responses were returned in a sealed envelope directly to a member of the research team. The responses to the three surveys were matched using codes and stored in a fully anonymized format. At Time 1, we asked participants to answer questions related to demographics and organizational red tape. We distributed the survey to 260 employees, 232 of whom returned useful responses. One month later (at Time 2), all Time 1 respondents were asked to rate their work engagement, and 217 responded. Another month later, 204 of the Time 2 respondents provided their answers regarding turnover intentions. Eventually, we were able to match answers for 202 respondents, which constituted our final sample (response rate = 77.7%). Among these participants, 54.0% were male. The participants' mean age was 42.26 years ($SD = 7.35$), and their average organizational tenure was 11.31 years ($SD = 7.50$). Most (80.7%) had at least one postsecondary educational qualification.

Measures

All survey items were translated from English into Kiswahili, the official language of instruction in schools, using the back translation procedure (Brislin, 1980) and were answered on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree).

Perceived Red Tape

We measured perceived red tape using Borry's (2016) three-item scale at Time 1. Traditionally, perceived red tape was measured by a single item (Rainey et al., 1995), which asked participants to respond to "if red tape is defined as burdensome administrative rules and procedures that have negative effects on the organization's effectiveness, how would you assess the level of red tape in your organization" on a Likert-type scale ranging from "no red tape" to "a great deal of red tape." However, there are criticisms regarding the negative connotations of the term "red tape," overfocus on a single part of performance, and risk of participant failure in differentiating red tape from general rules (Campbell, 2020; Feeney, 2012). To overcome these criticisms, Borry (2016) developed three items that refer to key dimensions of red tape and better capture its complexity without explicitly referring to the concept by name. This measure has been used in various contexts and cultures (e.g., Campbell, 2020;

Henderson & Borry, 2020; Kaufmann et al., 2020). In our study, participants were asked to report their perceptions on a 5-point scale, based on items "policies and procedures in my work division are *burdensome*," "... *unnecessary*," and "... *ineffective*." The Cronbach's α for red tape was 0.75, which is comparable to that reported in prior studies (e.g., $\alpha = 0.72$, Borry, 2016; $\alpha = 0.75$, Campbell, 2020).

Work Engagement

We utilized six items developed by Schaufeli et al. (2006) to measure work engagement at Time 2. Example items were "At my job, I feel strong and vigorous" (vigor), and "I am enthusiastic about my job" (dedication). The Cronbach's α for work engagement was 0.79.

Turnover Intentions

We employed two items developed by Irving et al. (1997) to assess turnover intentions at Time 3. An example item was "I will probably look for a new job within the next year." The Cronbach's α for this measure was 0.90.

Control Variables

We followed prior research (Chan et al., 2016) to control for gender, age, education, and organizational tenure in our analyses. Previous empirical studies have revealed their potential impact on turnover intentions. For example, Wombacher and Felfe (2017) found that turnover intentions are higher in males than in females, as well as in employees with longer organizational tenure. Ng and Feldman (2009) found that age is negatively related to turnover intentions and that education can also drive voluntary turnover.

Analysis Strategy

Prior to hypothesis testing, we conducted confirmatory factor analysis (CFA) in AMOS 25 to examine the distinction of the three focal variables. We conducted multiple regression analysis in SPSS 25 to test the main effect of red tape on turnover intentions and used the confidence interval (CI) generated from Hayes' (2013) PROCESS macro code for SPSS based on 5,000 bootstrap samples to test the mediation hypothesis. An estimate is deemed significant when its CI does not include zero.

Results

As per the CFA results (Table 1), the hypothesized three-factor model demonstrated a good fit. The model comparison showed that it fit the data better than a two-factor model combining

Table 1 Results of confirmatory factor analysis (Study 1)

Model	χ^2	<i>df</i>	$\Delta\chi^2$	Δdf	SRMR	RMSEA	CFI
3-factor model	24.19	11			.06	.08	.98
2-factor model A	128.20	13	104.01	2	.14	.21	.78
2-factor model B	114.05	13	89.86	2	.13	.20	.81
1-factor model	257.37	14	233.18	3	.20	.30	.52

Note. 3-factor model: the hypothesized baseline model with each variable considered a separate factor. 2-factor model A: red tape and work engagement were combined. 2-factor model B: turnover intentions and work engagement were combined. 1-factor model: all three variables were combined as a single factor. Construct subdimensions were used as indicators for work engagement. Except for the 3-factor model for which the *p*-value for χ^2 is .01 and significant at $<.05$, all other *p*-values for χ^2 and $\Delta\chi^2$ were .000 and significant at $p < .001$

red tape and work engagement, a two-factor model combining work engagement and turnover intentions, and a single-factor model. These results suggested that the three study variables were distinctive constructs.

Means, standard deviations, and correlations are shown in Table 2. Red tape, work engagement, and turnover intentions were correlated in the expected directions.

The results of hypothesis testing are presented in Table 3. Since the total effect model showed that red tape was significantly and positively related to turnover intentions (Model 1: $B = 0.29$, $SE = 0.08$, $p = 0.000$), Hypothesis 1a was supported. Red tape was significantly and negatively related to work engagement ($B = -0.17$, $SE = 0.05$, $p = 0.002$), which in turn was significantly and negatively related to turnover intentions (Model 2: $B = -0.36$, $SE = 0.10$, $p = 0.000$). PROCESS results showed a positive, significant indirect effect of red tape on turnover intentions via work engagement ($B = 0.06$, boot $SE = 0.03$, 95% $CI = [0.01, 0.12]$). Thus, Hypothesis 2a was supported.

Discussion

Study 1 provides initial support for our JD-R theory-based hypotheses regarding the relationships among red tape, work engagement, and turnover intentions as well as for the distinctiveness of these variables. While showing that red tape, as a hindrance job demand, can reduce employees' work engagement, the study did not allow us to gain insights with regard to behavioral precursors of turnover and our moderated mediation model. In Study 2, we aim to build on these results and test our full model that includes career adaptability as a moderator and job search behaviors as a further precursor of turnover.

Study 2

Sample and Procedure

Data were collected from a private education provider located in a prefecture-level city in Zhejiang Province in China. We first contacted the organization's president, explained the purpose of our study, and obtained approval to conduct a pen-and-paper survey among its senior high school teachers. The senior high school teachers were informed of the voluntary nature of participation and were given the opportunity to opt out and terminate their participation at any given time. They were assured that all answers would only be accessible to the members of the research team and were treated confidentially. Participants provided their informed consent and returned all the questionnaires in a sealed envelope directly to a member of the research team. All three surveys were coded to allow the research team to match responses.

At Time 1, we asked the teachers to answer questions related to organizational red tape and to provide their demographics. Out of the 482 contacted employees, 436 completed responses. At Time 2, one month later, 426 of the employees who answered the first questionnaire rated their work engagement. A further month later, 424 of the employees who completed the first survey provided their answers about their turnover intentions. Finally, we were able to match all three surveys for 419 participants (response rate = 86.9%). We achieved high response rates because of the management's endorsement and the use of working hours to complete the questionnaires. Excluding cases with missing values and ambiguous data entries

Table 2 Means, standard deviations, and correlations of variables (Study 1)

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. School dummy 1	.05	.22														
2. School dummy 2	.08	.28	-.07													
3. School dummy 3	.15	.36	-.10	-.13												
4. School dummy 4	.05	.22	-.05	-.07	-.10											
5. School dummy 5	.08	.28	-.07	-.09	-.13	-.07										
6. School dummy 6	.20	.40	-.11	-.15*	-.21**	-.11	-.15*									
7. School dummy 7	.16	.37	-.10	-.13	-.18**	-.10	-.13	-.22**								
8. School dummy 8	.10	.30	-.08	-.10	-.14*	-.08	-.10	-.16*	-.14*							
9. Gender	.54	.50	.03	.03	.06	.12	.07	-.09	-.09	.01						
10. Age	42.26	7.35	-.16*	-.14*	-.13	-.05	.18	.05	.17	-.01	-.02					
11. Education	3.45	0.95	.13	.23***	.05	.23**	.18*	-.29***	-.39***	.04	.18**	-.09				
12. Organizational tenure	11.31	7.50	-.09	-.21**	.09	-.05	.04	-.05	.31***	-.06	-.14*	.65***	-.37***			
13. Red tape	2.57	1.01	-.14	-.31***	-.09	-.14	-.08	.43***	.19**	-.00	.01	.09	-.29***	.07		
14. Work engagement	3.65	0.70	.14	.32***	.02	-.02	-.20**	-.19**	.02	.05	.07	-.03	.16*	-.06	-.30***	
15. Turnover intentions	2.46	1.02	-.02	-.16*	-.21**	.04	.27***	-.06	-.09	.10	-.05	-.02	.14	-.07	.17*	-.34***

Note. $N=202$. Since we collected data from nine schools, eight dummy variables were created. Gender: female=0 and male=1. Education: below high school=1, high school=2, technical school/college certificate or diploma=3, bachelor=4, master=5, and doctor=6. Age and organizational tenure were reported in years

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 3 Results of mediated regression analysis (Study 1)

Variable	Work engagement			Turnover intentions					
				Model 1			Model 2		
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>
(Constant)	3.24***	0.39	.000	2.78***	0.56	.000	3.95***	0.64	.000
School dummy 1	0.47	0.24	.055	-.073*	0.35	.037	-0.56	0.34	.100
School dummy 2	0.69***	0.21	.000	-1.03***	0.30	.001	-0.78**	0.29	.009
School dummy 3	0.18	0.18	.307	-1.18***	0.25	.000	-1.11***	0.25	.000
School dummy 4	-0.09	0.24	.721	0.40	0.35	.257	-0.43	0.34	.208
School dummy 5	-0.44*	0.20	.031	0.33	0.29	.258	0.17	0.28	.551
School dummy 6	0.08	0.18	.649	-0.98***	0.26	.000	-0.95***	0.25	.000
School dummy 7	0.34	0.19	.075	-0.93***	0.27	.001	-0.80**	0.26	.003
School dummy 8	0.26	0.19	.178	-0.38	0.27	.163	-0.29	0.27	.278
Gender	0.09	0.09	.344	-0.17	0.13	.213	-0.13	0.13	.300
Age	0.01	0.01	.222	-0.02	0.01	.105	-0.02	0.01	.177
Education	0.07	0.06	.290	0.13	0.09	.147	0.16	0.09	.078
Organizational tenure	-0.01	0.01	.584	0.01	0.01	.446	0.01	0.01	.520
Perceived red tape	-0.17**	0.05	.002	0.29***	0.08	.000	0.23**	0.08	.003
Work engagement							-0.36***	0.10	.000
<i>F</i>	4.56			5.28			6.11		
(<i>df1</i> , <i>df2</i>)	(13, 188)			(13, 188)			(14, 187)		
<i>R</i> ²	.24***		.000	.27*		.000	.31***		.000

Note. $N=202$. Eight dummy variables were created for schools. Gender: female=0 and male=1. Education: below high school=1, high school=2, technical school/college certificate or diploma=3, bachelor=4, master=5, and doctor=6. Age and organizational tenure were reported in years

* $p < .05$; ** $p < .01$; *** $p < .001$

resulted in a final sample of 405 valid responses, which were used for the data analyses. Among these participants, 74.4% were female. The participants' average age was 28.67 years ($SD = 5.78$) and the average organizational tenure was 2.81 years ($SD = 2.90$). Almost all participants (99.7%) held a postsecondary educational qualification.

Measures

All measurement items were translated into Chinese from English using the back translation procedure (Brislin, 1980), except for career adaptability items. We measured red tape (Time 1, $\alpha = 0.76$), work engagement (Time 2, $\alpha = 0.87$), and turnover intentions ($\alpha = 0.72$) using the translated versions of the measures used in Study 1.

Career Adaptability

At Time 1, we measured career adaptability with the Chinese-equivalent version of the Career Adapt-Ability Scale-Short Form (CAAS-SF) (Maggiore et al., 2017), which included twelve of the twenty-four items in the original CAAS (Savickas & Porfeli, 2012). Hou et al. (2012) developed the CAAS-China Version by validating the twenty-four-item CAAS in the Chinese context. In this study, we

used the twelve items from the CAAS-China Version that are equivalent to the items in the CAAS-SF. Participants were asked to report how strongly they had developed the career-related abilities stated in these items. Each of the four dimensions of career adaptability was measured with three items. Example items were "Becoming aware of the educational and vocational choices that I must make" (career concern), "Making decisions by myself" (career control), "Investigating options before making a choice" (career curiosity), and "Working up to my ability" (career confidence). CFA results demonstrated a good model fit for the higher-order factorial structure where the four dimensions, represented by their corresponding items, were loaded as first-order factors, and the global construct of career adaptability was loaded as the second-order factor ($\chi^2_{(df=50)} = 142.02$, $p = 0.000$; SRMR = 0.04, RMSEA = 0.07, CFI = 0.97). These results provide empirical support for our decision to focus on the overall level of career adaptability. The Cronbach's α for career adaptability was 0.92.

Job Search Behaviors

At Time 3, we measured job search behaviors employing Blau's (1994) twelve-item scale, which assessed current employees' preparatory (e.g., "I read a book or article

about getting a job or changing jobs”) and active (e.g., “I sent my resume to potential employers”) engagement in looking for external employment opportunities. The Cronbach’s α for this measure was 0.97.

Control Variables

Consistent with Study 1, we controlled for gender, age, education, and organizational tenure in the data analysis.

Analysis Strategy

As in Study 1, we first conducted CFA to test the discriminant validity of the measurement model in AMOS 25 before hypothesis testing. We used simple multiple regression in SPSS 25 to examine the main effects of red tape (Hypothesis 1). A two-step hierarchical regression analysis was performed to test the simple moderating effect of career adaptability (Hypothesis 3). Control variables, the independent variable (red tape), and the moderating variable (career adaptability) were entered in Step 1, and the interaction between red tape and career adaptability was entered in Step 2. Red tape and career adaptability were mean-centered when creating the interaction term. We utilized CIs produced through PROCESS macro code for SPSS (5,000 bootstrap samples) to test indirect effects (Hypothesis 2) and conditional indirect effects (Hypothesis 4).

Results

The CFA results (Table 4) demonstrated that the fit of the hypothesized five-factor model was acceptable ($\chi^2_{(df=55)} = 106.65, p = 0.000$; SRMR = 0.04, RMSEA = 0.05, CFI = 0.98). We compared the five-factor model against five four-factor models, three three-factor models, and a one-factor model. As shown in Table 4, the model comparison showed that the five-factor model fit the data best. These results indicated that the five focal variables (i.e., red tape, career adaptability, work engagement, turnover intentions, and job search behaviors) could be distinguished from one another.

Table 5 presents the means, standard deviations, and correlations of the study variables. The focal variables were significantly correlated in the expected direction. For example, red tape was negatively correlated with work engagement. Turnover intentions and job search behaviors were positively correlated with red tape and negatively correlated with work engagement.

As presented in Table 6, red tape positively and significantly predicted turnover intentions (Model 2–1: $B = 0.18, SE = 0.05, p = 0.000$) and job search behaviors (Model 3–1: $B = 0.24, SE = 0.06, p = 0.000$), supporting Hypothesis 1. There was a significant, negative relationship between red tape and work engagement (Model 1: $B = -0.18, SE = 0.04, p = 0.000$), which in turn was negatively and significantly related to turnover intentions (Model 2–2: $B = -0.44, SE = 0.06, p = 0.000$) and job search behaviors (Model 3–2: $B = -0.25, SE = 0.08, p = 0.001$). As per the results from PROCESS analyses, the indirect effect of red tape on

Table 4 Results of confirmatory factor analysis (Study 2)

Model	χ^2	<i>df</i>	$\Delta\chi^2$	Δdf	SRMR	RMSEA	CFI
5-factor model	106.65	55			.04	.05	.98
4-factor model A	438.56	59	331.90	4	.12	.13	.86
4-factor model B	262.46	59	155.80	4	.08	.09	.93
4-factor model C	416.95	59	310.30	4	.10	.12	.87
4-factor model D	267.45	59	160.80	4	.07	.09	.92
4-factor model E	985.50	59	878.84	4	.10	.20	.66
3-factor model A	594.38	62	487.73	7	.14	.15	.80
3-factor model B	559.59	62	452.94	7	.12	.14	.82
3-factor model C	735.20	62	628.55	7	.15	.16	.75
1-factor model	1804.67	65	1698.02	10	.19	.26	.36

Note. 5-factor model: the hypothesized baseline model with each variable considered a separate factor. 4-factor model A: red tape and career adaptability were combined. 4-factor model B: turnover intentions and job search behaviors were combined. 4-factor C: red tape and work engagement were combined. 4-factor D: work engagement and turnover intentions were combined. 4-factor E: work engagement and job search behaviors were combined. 3-factor model A: red tape and career adaptability were combined while turnover intentions and job search behaviors were combined. 3-factor model B: work engagement, turnover intentions, and job search behaviors were combined. 3-factor model C: red tape, career adaptability, and work engagement were combined. 1-factor model: all five variables were combined as a single factor. Construct subdimensions were used as indicators for career adaptability, work engagement, and job search behaviors. All p -values for χ^2 and $\Delta\chi^2$ were .000, and thus were significant at $p < .001$

Table 5 Means, standard deviations, and correlations of variables (Study 2)

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Gender	0.26	0.46								
2. Age	28.67	5.78	.29***							
3. Education	3.13	0.42	.05	.01						
4. Organizational tenure	2.81	2.90	.15**	.52***	-.15**					
5. Red tape	2.79	0.80	-.01	-.05	.01	-.05				
6. Career adaptability	4.02	0.61	.10*	.13*	.12*	.07	-.13**			
7. Work engagement	3.98	0.63	.14**	.10*	.09	.07	-.22***	.27***		
8. Turnover intention	1.98	0.81	-.09	-.13**	-.07	-.08	.19***	-.19***	-.39***	
9. Job search behaviors	1.90	0.85	.00	-.11*	.11*	-.13**	.24***	-.11*	-.23***	.44***

Note. Sample size ranged from 399 to 405 due to listwise deletion of demographic variables. Gender: female=0 and male=1. Education: high school=1, technical school/college certificate or diploma=2, bachelor=3, master=4, and doctor=5

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 6 Results of mediated regression analysis (Study 2)

Variable	Work engagement			Turnover intentions						Job search behaviors					
	Model 1			Model 2-1			Model 2-2			Model 3-1			Model 3-2		
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>
(Constant)	3.96***	0.42	.000	2.26***	0.44	.000	4.00***	0.50	.000	0.92	0.48	.057	1.89***	0.61	.002
Gender	0.18*	0.08	.014	-0.12	0.10	.240	-0.04	0.10	.710	0.07	0.10	.479	0.12	0.98	.229
Age	-0.00	0.01	.930	-0.01	0.01	.340	-0.01	0.01	.351	-0.01	0.01	.270	-0.01	0.01	.283
Education	0.15	0.09	.071	-0.14	0.10	.168	-0.08	0.10	.427	0.19	0.12	.106	0.23*	0.11	.047
Organizational tenure	0.01	0.02	.512	-0.01	0.02	.703	-0.00	0.02	.897	-0.02	0.02	.205	-0.02	0.02	.259
Red tape	-0.18***	0.04	.000	0.18***	0.05	.000	0.10	0.05	.054	0.24***	0.06	.000	0.20**	0.06	.002
Work engagement							-0.44***	0.06	.000				-0.25**	0.08	.001
<i>F</i>	8.43			3.93			12.33			5.78			7.87		
(<i>df1</i> , <i>df2</i>)	(5, 387)			(5, 387)			(6, 386)			(5, 387)			(6, 386)		
<i>R</i> ²	.08***		.000	.05***		.000	.16***		.000	.08***		.000	.11***		.000

Note. $N = 393$

* $p < .05$; ** $p < .01$; *** $p < .001$

turnover intentions via work engagement was positive and significant ($B = 0.08$, boot $SE = 0.02$, 95% $CI = [0.04, 0.12]$), as was the indirect effect of red tape on job search behaviors ($B = 0.04$, boot $SE = 0.02$, 95% $CI = [0.02, 0.08]$). These results supported Hypothesis 2.

As shown in Table 7, the interaction of red tape and career adaptability significantly predicted work engagement ($B = 0.14$, $SE = 0.06$, $p = 0.033$), providing initial support for the moderating role of career adaptability. To further confirm the moderating effect and its direction, we followed the recommendation of Aiken and West (1991) to plot the relationship between red tape and work engagement at one standard deviation below and above the mean of career adaptability (Fig. 2). Simple slope tests suggested that the negative effect of red tape on work engagement was significant under low career adaptability (simple slope = -0.26 ,

$t = -4.23$, $p = 0.000$), while red tape did not have a significant effect on work engagement under high career adaptability (simple slope = -0.09 , $t = -1.83$, $p = 0.068$). These results supported Hypothesis 3, which predicted a stronger relationship between red tape and work engagement under low rather than high levels of career adaptability.

PROCESS results showed that the indirect effect of red tape on turnover intentions via work engagement was greater under low career adaptability ($B = 0.11$, boot $SE = 0.03$, 95% $CI = [0.06, 0.18]$) than under high career adaptability ($B = 0.04$, boot $SE = 0.02$, 95% $CI = [0.005, 0.08]$). The index of moderated mediation ($Index = -0.06$, boot $SE = 0.03$, 95% $CI = [-0.12, -0.01]$) further confirmed that these two conditional indirect effects were significantly different. Likewise, the indirect effect of

Table 7 Results of moderated regression analysis (Study 2)

Variable	Work engagement					
	Step 1			Step 2		
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>
(Constant)	3.65***	0.28	.000	3.67***	0.28	.000
Gender	0.16*	0.07	.025	0.16*	0.07	.028
Age	-0.00	0.01	.727	-0.00	0.01	.697
Education	0.11	0.07	.150	0.10	0.07	.164
Organizational tenure	0.01	0.01	.430	0.01	0.01	.395
Red tape	-0.16***	0.04	.000	-0.17***	0.04	.000
Career adaptability	0.22***	0.05	.000	0.23***	0.05	.000
Red tape × career adaptability				0.14*	0.06	.033
<i>F</i>	9.03			8.46		
(<i>df1</i> , <i>df2</i>)	(6, 386)			(7, 385)		
<i>R</i> ²	0.12***		.000	0.13***		.000
<i>F-change</i>				4.60		
(<i>df1</i> , <i>df2</i>)				(1, 385)		
ΔR^2				0.01*		.033

Note. *N* = 393

p* < .05; *p* < .01; ****p* < .001

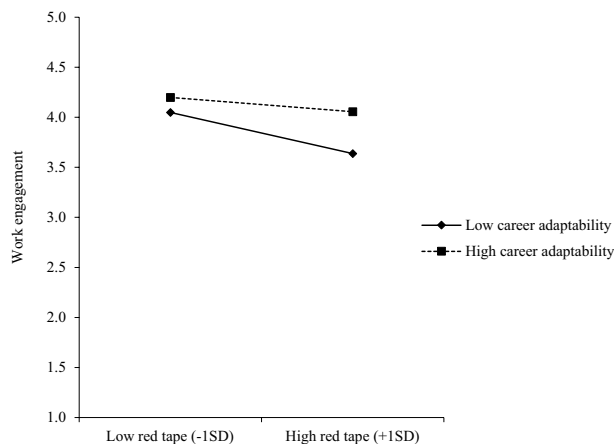


Fig. 2 The interaction effect of red tape and career adaptability on work engagement (Study 2)

red tape on job search behaviors via work engagement was greater under low career adaptability ($B = 0.06$, boot $SE = 0.02$, 95% $CI = [0.03, 0.12]$) than under high career adaptability ($B = 0.02$, boot $SE = 0.01$, 95% $CI = [0.003, 0.06]$); the index of moderated mediation ($Index = -0.03$, boot $SE = 0.02$, 95% $CI = [-0.08, -0.01]$) confirmed the significant difference in the two conditional indirect effects. These results suggest that the indirect effects of red tape on turnover intentions and job search behaviors were greater under lower levels of career adaptability, supporting Hypothesis 4.

General Discussion

Theoretical Implications

The present study confirms a link between red tape and employees' work outcomes in line with previous research. It also corroborates the theoretical contention that individual differences, particularly personal strengths, can determine how effectively employees deal with the presence of perceived red tape and bureaucracy (Lewis, 1980; Pandey & Kingsley, 2000; Riccucci, 1995). In this study, we apply the JD-R theory (Demerouti et al., 2001) and career construction theory (Savickas, 2005) to understand the process by which perceived red tape predicts attitudinal and behavioral precursors of employee turnover. By identifying the time-lagged effect of perceived red tape on intended turnover, our research confirms the findings of previous cross-sectional research that show a negative association between perceived red tape and turnover intentions (Quratulain & Khan, 2015). Our research demonstrates that perceived red tape is a key factor that fosters turnover intentions and job search behaviors through employees' work engagement and suggests that employees' turnover-related reactions to perceived red tape vary according to individuals' resources. Using two studies conducted in the education sector in Tanzania and China, we found that employees who perceive greater red tape are more likely to show decreased work engagement, which in turn makes the precursors of turnover more salient. As shown in Study 2, the work engagement-based mediation

becomes less prominent when employees have higher levels of career adaptability.

This article theoretically and empirically contributes to our understanding of how and when perceived red tape leads employees to consider leaving and prepare to leave the organization. First, we expand the focus of pre-turnover employee outcomes in previous studies to include job search behaviors as a behavioral precursor of turnover. Thus, compared to past research (e.g., Quratulain & Khan, 2015), this article offers more solid evidence that consolidates the view that perceived red tape (e.g., perceptions of ineffective or redundant organizational policies or practices) plants the seed for employees' intentions to leave (Shim et al., 2017). The inclusion of both attitudinal and behavioral forerunners of turnover has, to some extent, contributed to a more holistic understanding of perceived red tape in the employee turnover process, overcoming the shortcomings of prior research (e.g., Brunetto et al., 2012; Giauque et al., 2019), which draws conclusions from a partial picture of the turnover process (e.g., based solely on attitudinal precursors). Theoretically explaining perceived red tape as a hindrance demand, our research also confirms the key tenets of the JD-R theory (Demerouti et al., 2001) by verifying that the consideration of leaving (i.e., turnover intentions and job search behaviors) is a likely strategy that employees use to cope with perceptions of ineffective, burdensome, and unnecessary organizational rules.

Additionally, the present research contributes to the literature by highlighting a key mechanism linking perceived red tape and turnover-related reactions. By empirically emphasizing work engagement as the underlying mechanism, it supplements the mere (dis)satisfaction-based (e.g., Quratulain & Khan, 2015) or stress-related (e.g., Giauque et al., 2019; Shim et al., 2017) mechanisms investigated previously to explain how or why perceived red tape heightens one's intentions to leave. While these explored mechanisms (e.g., resigned satisfaction, which is a pessimistic feeling toward the current job; Quratulain & Khan, 2015) capture individuals' negative feelings or psychological states at work, our research takes a somewhat different perspective and reveals that by harming an employee's positive state of mind at work, perceived red tape can activate their consideration of leaving. Our findings suggest that perceived red tape hampers employees' vigor and dedication due to its role as a hindrance stressor, creating cognitive and emotional pressure. This prevents employees' engagement at work and consequently fosters turnover intentions and leads them to engage in job search behaviors. Our test of a positive psychological state (i.e., work engagement) as a mechanism that connects a hindrance demand (i.e., perceived red tape) and employee outcomes has also enriched the JD-R theory (Demerouti et al., 2001). Specifically, this test has shed light on a demotivational process, which, while

theoretically inferential, is not identical to the two major processes (i.e., the health impairment process and the motivational process; Bakker et al., 2014) currently used to explicate the consequences of job demands. The verification of work engagement as a mechanism in two cultures and types of organizations (private and public) may help strengthen the confidence in the generalizability of this demotivational process through which red tape-associated demands trigger turnover intentions.

Furthermore, we highlight the role played by career adaptability in buffering against the negative influence of perceived red tape on work engagement. Our results indicate that employees with stronger career adaptability are better able to manage the demanding conditions associated with perceived red tape, thus red tape has less impact on their work engagement. In comparison, those with insufficient career adaptability, due to their relative lack of capabilities in dealing with work demands, struggle more to engage in work when perceived red tape is present. Extending the original premise of the JD-R theory about the interactive functions of job demands and job resources (Demerouti et al., 2001), these findings align with the later theoretical development that personal resources also act to suppress the unfavorable consequences of job demands (Xanthopoulou et al., 2007). The identified interaction effect of perceived red tape and career adaptability also reflects a successful integration of the JD-R theory (Demerouti et al., 2001; Xanthopoulou et al., 2007) and career construction theory (Savickas, 2005). For instance, as the core competence embedded in career construction theory, career adaptability has been verified to be a critical personal resource in the JD-R theory, assisting individuals in navigating their psychological reactions and important vocational tendencies (e.g., whether to change jobs or employers).

Last, and relatedly, our results contribute to a nuanced understanding of how career adaptability resources can drive the mechanisms underlying the effects of perceived red tape. The confirmed moderated mediation framework underscores that the extent to which work engagement can explain the mediation process linking perceived red tape to turnover intentions and job search behaviors is contingent on employees' career adaptability. Our empirical evidence indicates that as employees' career adaptability becomes stronger, perceived red tape is less likely to foster turnover precursors through reducing their work engagement.

Limitations and Future Research Directions

This research has several limitations that future research should pay attention to. First, while we collected the measures of the predictor, mediator, and criteria separately at three different time points, minimizing the risk of common method variance observed in almost all prior empirical

research on perceived red tape (e.g., Borst, 2018; Steijn & van der Voet, 2019), the causal explanation of our proposed relationships should still be treated cautiously. For example, the current study design does not exclude the possibility that employees' turnover intentions make them less engaged in work. Future research may implement longitudinal studies that collect repeated measures for at least three waves or experimental designs to identify causal relationships among perceived red tape, work engagement, and turnover precursors more accurately.

Second, since we did not control for the variables that share commonalities with perceived red tape, this research does not allow us to determine if perceived red tape contributes to the unique variance in our research model's mediating and dependent variables. For instance, the literature shows that administrative burden has some overlap with perceived red tape, given that they both involve the characteristic of burdensomeness in organizational processes. In many cases, these constructs are distinct (Bozeman & Youtie, 2020). Future studies could consider controlling for these variables and other important constructs that are related to administration, processes, structures, and rules that impact organizational and individual effectiveness (e.g., formalization, hierarchical authority, and burdensome compliance) to verify the unique effects of perceived red tape on employee outcomes. Relatedly, future research may go beyond Borry's (2016) measure to investigate more specific indicators of red tape, such as the number, type, and levels of policies and procedures and the frequency at which red tape is encountered. Doing so may generate more insights into the specific aspects of perceived red tape and how they impact employee outcomes.

Third, we considered work engagement as a single mediation mechanism underlying the relationship between perceived red tape and turnover precursors. Thus, we could not observe whether work engagement could still be an effective mediator when alternative mechanisms were also accounted for. Prior studies (e.g., Quratulain & Khan, 2015) have suggested that perceived job characteristics or contexts and an individual's state of satisfaction can explain the influence of perceived red tape. Future research could include these variables or other theoretically relevant constructs as competing mechanisms to explore the processes that best account for the effects of perceived red tape on employee outcomes.

Practical Implications

Despite its limitations, this research has useful practical implications for organizations. The evidence from the prior literature indicates that organizations should reduce red tape to facilitate organizational efficiency (Scott & Pandey, 2005; Steijn & van der Voet, 2019). Our research further alerts organizations about the importance of minimizing the

detrimental effect of perceivable red tape. First, our research helps managers advance their insights regarding how and why perceived red tape elicits undesirable employee outcomes (e.g., signs of turnover). The results of both studies imply that reduced work engagement resulting from perceived red tape precedes employees' consideration of leaving. Managers must be aware that employees' lowered work engagement could be a potential signal for their intent to leave an organization when they perceive excessive red tape.

In addition to minimizing red tape, managers should endeavor to prevent the extant red tape from producing further harmful results to employees and organizations. Our findings show that individuals with strong career adaptability are less concerned about perceived red tape. Thus, an effective way to alleviate the negative impact of perceived red tape is to build and strengthen employees' adaptability in work and career settings. Koen et al. (2012) highlighted that career adaptability is malleable and can be fostered by other factors such as training. Targeted training can focus on the key facets of career adaptability (Klehe et al., 2012). For example, organizations might initiate training and mentoring programs designed to develop employees' capabilities in envisioning and planning their career paths, controlling and exploring career possibilities, and dealing with career difficulties (Klehe et al., 2012; Koen et al., 2012). Furthermore, organizations might consider actively involving employees in the decision-making process and provide them with greater autonomy and support because these practices have been found to foster employees' career adaptability and make them more committed to the organization (Ito & Brotheridge, 2005).

Conclusion

Red tape prevails in many organizations and has a negative influence on organizational effectiveness (Kaufmann et al., 2019). One way it does this is by fostering employees' turnover-related reactions (Quratulain & Khan, 2015). Building on and extending the existing body of work, the present research views red tape as a hindrance job demand, and established that red tape increases turnover intentions and prompts job search behaviors due to reducing employees' work engagement. Our results further reveal that career adaptability serves as a personal self-regulatory resource that alleviates red tape's detrimental effects. Drawing on evidence from private and public sector organizations across two different cultures, this research provides a basis from which future work may be conducted to understand the negative influence of red tape in greater depth, and explore how individuals can effectively deal with it.

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Declarations

Conflict of Interest The authors declare no competing interests.

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References

- Abelson, M. A., & Baysinger, B. D. (1984). Optimal and dysfunctional turnover: Toward an organizational level model. *Academy of Management Review*, 9(2), 331–341. <https://doi.org/10.5465/amr.1984.4277675>
- Aiken, L., & West, S. (1991). *Multiple regression: Testing and interpreting interactions*. Sage Publications.
- Amarnani, R. K., Lajom, J. A. L., Restubog, S. L. D., & Capezio, A. (2020). Consumed by obsession: Career adaptability resources and the performance consequences of obsessive passion and harmonious passion for work. *Human Relations*, 73(6), 811–836. <https://doi.org/10.1177/0018726719844812>
- Babakus, E., Yavas, U., & Karatepe, O. M. (2017). Work engagement and turnover intentions: Correlates and customer orientation as a moderator. *International Journal of Contemporary Hospitality Management*, 29(6), 1580–1598. <https://doi.org/10.1108/IJCHM-11-2015-0649>
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD–R approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 389–411. <https://doi.org/10.1146/annurev-orgpsych-031413-091235>
- Blau, G. (1994). Testing a two-dimensional measure of job search behavior. *Organizational Behavior and Human Decision Processes*, 59(2), 288–312. <https://doi.org/10.1006/obhd.1994.1061>
- Blom, R. (2020). Mixed feelings? Comparing the effects of perceived red tape and job goal clarity on hrn satisfaction and organizational commitment across central government, government agencies, and businesses. *Public Personnel Management*, 49(3), 421–443. <https://doi.org/10.1177/0091026019878204>
- Borry, E. L. (2016). A new measure of red tape: Introducing the three-item red tape (TIRT) scale. *International Public Management Journal*, 19(4), 573–593. <https://doi.org/10.1080/10967494.2016.1143421>
- Borst, R. T. (2018). Comparing work engagement in people-changing and people-processing service providers: A mediation model with red tape, autonomy, dimensions of PSM, and performance. *Public Personnel Management*, 47(3), 287–313. <https://doi.org/10.1177/0091026018770225>
- Bozeman, B. (1993). A theory of government “red tape.” *Journal of Public Administration Research and Theory*, 3(3), 273–304. <https://doi.org/10.1093/oxfordjournals.jpart.a037171>
- Bozeman, B. (2000). *Bureaucracy and red tape*. Prentice Hall.
- Bozeman, B., & Feeney, M. K. (2011). *Rules and red tape and formalization: Untangling conceptual knots*. M.E. Sharpe.
- Bozeman, B., Reed, P. N., & Scott, P. (1992). Red tape and task delays in public and private organizations. *Administration & Society*, 24(3), 290–322. <https://doi.org/10.1177/009539979202400302>
- Bozeman, B., & Youtie, J. (2020). Robotic bureaucracy: Administrative burden and red tape in university research. *Public Administration Review*, 80(1), 157–162. <https://doi.org/10.1111/puar.13105>
- Brislin, R. W. (1980). Translation and content analysis of oral and written materials. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology* (Vol. 2, pp. 389–444). Allyn & Bacon.
- Brunetto, Y., Teo, S. T., Shacklock, K., & Farr-Wharton, R. (2012). Emotional intelligence, job satisfaction, well-being and engagement: Explaining organisational commitment and turnover intentions in policing. *Human Resource Management Journal*, 22(4), 428–441. <https://doi.org/10.1111/j.1748-8583.2012.00198.x>
- Brunetto, Y., Teo, S. T. T., Farr-Wharton, R., Shacklock, K., & Shriberg, A. (2017). Individual and organizational support: Does it affect red tape, stress and work outcomes of police officers in the USA? *Personnel Review*, 46(4), 750–766. <https://doi.org/10.1108/PR-12-2015-0319>
- Campbell, J. W. (2020). Red tape, rule burden, and legitimate performance trade-offs: Results from a vignette experiment. *Public Performance & Management Review*, 43(4), 741–765. <https://doi.org/10.1080/15309576.2019.1676273>
- Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. (2000). An empirical examination of self-reported work stress among U.S. managers. *Journal of Applied Psychology*, 85(1), 65–74. <https://doi.org/10.1037/0021-9010.85.1.65>
- Chan, S. H. J., Mai, X., Kuok, O. M. K., & Kong, S. H. (2016). The influence of satisfaction and promotability on the relation between career adaptability and turnover intentions. *Journal of Vocational Behavior*, 92, 167–175. <https://doi.org/10.1016/j.jvb.2015.12.003>
- Cooke, D. K., Brant, K. K., & Woods, J. M. (2019). The role of public service motivation in employee work engagement: A test of the job demands-resources model. *International Journal of Public Administration*, 42(9), 765–775. <https://doi.org/10.1080/01900692.2018.1517265>
- De Jong, G., & Van Witteloostuijn, A. (2015). Regulatory red tape and private firm performance. *Public Administration*, 93(1), 34–51. <https://doi.org/10.1111/padm.12098>
- DeHart-Davis, L., & Pandey, S. K. (2005). Red tape and public employees: Does perceived rule dysfunction alienate managers? *Journal of Public Administration Research and Theory*, 15(1), 133–148. <https://doi.org/10.1093/jopart/mui007>
- Demerouti, E., Mostert, K., & Bakker, A. B. (2010). Burnout and work engagement: A thorough investigation of the independency of both constructs. *Journal of Occupational Health Psychology*, 15(3), 209–222. <https://doi.org/10.1037/a0019408>
- Demerouti, E., Nachreiner, F., Baker, A. B., & Schaufeli, W. B. (2001). The job demands-resources model of burnout [Article]. *Journal of Applied Psychology*, 86(3), 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>
- Diamantopoulos, A., Riefler, P., & Roth, K. P. (2008). Advancing formative measurement models. *Journal of Business Research*, 61(12), 1203–1218. <https://doi.org/10.1016/j.jbusres.2008.01.009>
- Dickson, D. (2015). *The people's government: An introduction to democracy*. Cambridge University Press.
- Feeney, M. K. (2012). Organizational red tape: A measurement experiment. *Journal of Public Administration Research and Theory*, 22(3), 427–444. <https://doi.org/10.1093/jopart/mus002>
- Gabel Shemueli, R., Dolan, S. L., Suárez Ceretti, A., & Nuñez del Prado, P. (2016). Burnout and engagement as mediators in the relationship between work characteristics and turnover intentions

- across two Ibero-American nations. *Stress and Health*, 32(5), 597–606. <https://doi.org/10.1002/smi.2667>
- George, B., Pandey, S. K., Steijn, B., Decramer, A., & Audenaert, M. (2021). Red tape, organizational performance, and employee outcomes: Meta-analysis, meta-regression, and research agenda. *Public Administration Review*, 81(4), 638–651. <https://doi.org/10.1111/puar.13327>
- Giauque, D., Anderfuhren-Biget, S., & Varone, F. (2019). Stress and turnover intents in international organizations: Social support and work–life balance as resources. *The International Journal of Human Resource Management*, 30(5), 879–901. <https://doi.org/10.1080/09585192.2016.1254105>
- Giauque, D., Ritz, A., Varone, F., & Anderfuhren-Biget, S. (2012). Resigned but satisfied: The negative impact of public service motivation and red tape on work satisfaction. *Public Administration*, 90(1), 175–193. <https://doi.org/10.1111/j.1467-9299.2011.01953.x>
- Halbesleben, J. R. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources and consequences. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: Recent developments in theory and research* (pp. 102–117). Routledge.
- Halbesleben, J. R., & Wheeler, A. R. (2008). The relative roles of engagement and embeddedness in predicting job performance and intention to leave. *Work & Stress*, 22(3), 242–256. <https://doi.org/10.1080/02678370802383962>
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis*. Guilford Press.
- Henderson, A. C., & Borry, E. L. (2020). The emotional burdens of public service: Rules, trust, and emotional labour in emergency medical services. *Public Money & Management*, 1–10. <https://doi.org/10.1080/09540962.2020.1831180>
- Hernández, A., González-Romá, V., & Oltra, R. (2020). The non-linear influence of the frequency of interactions between team managers and team members on positive team mood: A moderated model. *Journal of Occupational and Organizational Psychology*, 93(3), 738–766. <https://doi.org/10.1111/joop.12313>
- Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of Personality and Social Psychology*, 84(3), 632–643. <https://doi.org/10.1037/0022-3514.84.3.632>
- Hou, Z.-J., Leung, S. A., Li, X., Li, X., & Xu, H. (2012). Career adaptabilities scale—China form: Construction and initial validation. *Journal of Vocational Behavior*, 80(3), 686–691. <https://doi.org/10.1016/j.jvb.2012.01.006>
- Irving, P. G., Coleman, D. F., & Cooper, C. L. (1997). Further assessments of a three-component model of occupational commitment: Generalizability and differences across occupations. *Journal of Applied Psychology*, 82(3), 444–452. <https://doi.org/10.1037/0021-9010.82.3.444>
- Ito, J. K., & Brotheridge, C. M. (2005). Does supporting employees' career adaptability lead to commitment, turnover, or both? *Human Resource Management*, 44(1), 5–19. <https://doi.org/10.1002/hrm.20037>
- Jacobsen, C. B., & Jakobsen, M. L. (2018). Perceived organizational red tape and organizational performance in public services. *Public Administration Review*, 78(1), 24–36. <https://doi.org/10.1111/puar.12817>
- Jensen, J. M., Patel, P. C., & Messersmith, J. G. (2013). High-performance work systems and job control: Consequences for anxiety, role overload, and turnover intentions. *Journal of Management*, 39(6), 1699–1724. <https://doi.org/10.1177/0149206311419663>
- Jiang, Z. (2017). Proactive personality and career adaptability: The role of thriving at work. *Journal of Vocational Behavior*, 98, 85–97. <https://doi.org/10.1016/j.jvb.2016.10.003>
- Jiang, Z., Hu, X., & Wang, Z. (2018). Career adaptability and plateaus: The moderating effects of tenure and job self-efficacy. *Journal of Vocational Behavior*, 104, 59–71. <https://doi.org/10.1016/j.jvb.2017.10.006>
- Kaufman, H. (1977). *Red tape: Its origins, uses and abuses*. Brookings Institution.
- Kaufmann, W., Borry, E. L., & DeHart-Davis, L. (2019). More than pathological formalization: Understanding organizational structure and red tape. *Public Administration Review*, 79(2), 236–245. <https://doi.org/10.1111/puar.12958>
- Kaufmann, W., Ingrams, A., & Jacobs, D. (2020). Being consistent matters: Experimental evidence on the effect of rule consistency on citizen red tape. *The American Review of Public Administration*, 51(1), 28–39. <https://doi.org/10.1177/0275074020954250>
- Klehe, U., Zikic, J., Van Vianen, A. E. M., Koen, J., & Buyken, M. (2012). Coping proactively with economic stress: Career adaptability in the face of job insecurity, job loss, unemployment, and underemployment. In P. L. Perrewé, J. R. B. Halbesleben, & C. C. Rosen (Eds.), *The role of the economic crisis on occupational stress and well being* (Vol. 10, pp. 131–176). Emerald. [https://doi.org/10.1108/S1479-3555\(2012\)0000010008](https://doi.org/10.1108/S1479-3555(2012)0000010008)
- Koen, J., Klehe, U.-C., & Van Vianen, A. E. M. (2012). Training career adaptability to facilitate a successful school-to-work transition. *Journal of Vocational Behavior*, 81(3), 395–408. <https://doi.org/10.1016/j.jvb.2012.10.003>
- Lee, T. W., & Mitchell, T. R. (1994). An alternative approach: The unfolding model of voluntary employee turnover. *Academy of Management Review*, 19(1), 51–89. <https://doi.org/10.5465/amr.1994.9410122008>
- Lewis, E. B. (1980). *Public entrepreneurship*. Indiana University Press.
- Maggiore, C., Rossier, J., & Savickas, M. L. (2017). Career adaptabilities scale—short form (CAAS-SF) construction and validation. *Journal of Career Assessment*, 25(2), 312–325. <https://doi.org/10.1177/1069072714565856>
- Mobley, W. H., Griffeth, R. W., Hand, H. H., & Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, 86(3), 493–522. <https://doi.org/10.1037/0033-2909.86.3.493>
- Morgeson, F. P., & Humphrey, S. E. (2006). The work design questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, 91(6), 1321–1339. <https://doi.org/10.1037/0021-9010.91.6.1321>
- Moynihan, D., Herd, P., & Harvey, H. (2014). Administrative burden: Learning, psychological, and compliance costs in citizen-state interactions. *Journal of Public Administration Research and Theory*, 25(1), 43–69. <https://doi.org/10.1093/jopart/muu009>
- Moynihan, D. P., & Pandey, S. K. (2007). The role of organizations in fostering public service motivation. *Public Administration Review*, 67(1), 40–53. <https://doi.org/10.1111/j.1540-6210.2006.00695.x>
- Newman, A., Dunwoodie, K., Jiang, Z., & Nielsen, I. (2021). Openness to experience and the career adaptability of refugees: How do career optimism and family social support matter? *Journal of Career Assessment*. <https://doi.org/10.1177/106907272111041532>
- Ng, T. W. H., & Feldman, D. C. (2009). Re-examining the relationship between age and voluntary turnover. *Journal of Vocational Behavior*, 74(3), 283–294. <https://doi.org/10.1016/j.jvb.2009.01.004>
- Otis, N., & Pelletier, L. G. (2005). A motivational model of daily hassles, physical symptoms, and future work intentions among police officers. *Journal of Applied Social Psychology*, 35(10), 2193–2214. <https://doi.org/10.1111/j.1559-1816.2005.tb02215.x>
- Pandey, S. K., & Kingsley, G. A. (2000). Examining red tape in public and private organizations: Alternative explanations from a social psychological model. *Journal of Public Administration Research and Theory*, 10(4), 779–800. <https://doi.org/10.1093/oxfordjournals.jpart.a024291>
- Pandey, S. K., & Scott, P. G. (2002). Red tape: A review and assessment of concepts and measures. *Journal of Public Administration*

- Research and Theory*, 12(4), 553–580. <https://doi.org/10.1093/oxfordjournals.jpart.a003547>
- Ponomarev, B. L., & Boardman, P. C. (2011). Organizational pathology compared to what? Impacts of job characteristics and career trajectory on perceptions of organizational red tape. *Public Administration Review*, 71(4), 582–597. <https://doi.org/10.1111/j.1540-6210.2011.02390.x>
- Porfeli, E. J., & Savickas, M. L. (2012). Career adapt-abilities scale-USA form: Psychometric properties and relation to vocational identity. *Journal of Vocational Behavior*, 80(3), 748–753. <https://doi.org/10.1016/j.jvb.2012.01.009>
- Potipiroon, W., & Faerman, S. (2016). What difference do ethical leaders make? Exploring the mediating role of interpersonal justice and the moderating role of public service motivation. *International Public Management Journal*, 19(2), 171–207. <https://doi.org/10.1080/10967494.2016.1141813>
- Quratulain, S., & Khan, A. K. (2015). Red tape, resigned satisfaction, public service motivation, and negative employee attitudes and behaviors: Testing a model of moderated mediation. *Review of Public Personnel Administration*, 35(4), 307–332. <https://doi.org/10.1177/0734371x13511646>
- Rainey, H. G., Pandey, S., & Bozeman, B. (1995). Research note: Public and private managers' perceptions of red tape. *Public Administration Review*, 55(6), 567–574. <https://doi.org/10.2307/3110348>
- Riccucci, N. T. (1995). *Unsung heroes: Federal executives make a difference*. Georgetown University Press.
- Rudolph, C. W., Lavigne, K. N., Katz, I. M., & Zacher, H. (2017a). Linking dimensions of career adaptability to adaptation results: A meta-analysis. *Journal of Vocational Behavior*, 102, 151–173. <https://doi.org/10.1016/j.jvb.2017.06.003>
- Rudolph, C. W., Lavigne, K. N., & Zacher, H. (2017b). Career adaptability: A meta-analysis of relationships with measures of adaptivity, adapting responses, and adaptation results. *Journal of Vocational Behavior*, 98, 17–34. <https://doi.org/10.1016/j.jvb.2016.09.002>
- Salanova, M., & Schaufeli, W. B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behaviour. *The International Journal of Human Resource Management*, 19(1), 116–131. <https://doi.org/10.1080/09585190701763982>
- Savickas, M. L. (2005). The theory and practice of career construction. In S. D. Brown & R. W. Lent (Eds.), *Career development and counselling: Putting theory and research to work*. Wiley.
- Savickas, M. L., & Porfeli, E. J. (2012). Career adapt-abilities scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661–673. <https://doi.org/10.1016/j.jvb.2012.01.011>
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315. <https://doi.org/10.1002/job.248>
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66(4), 701–716. <https://doi.org/10.1177/0013164405282471>
- Schaufeli, W. B., Salanova, M., González-romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71–92. <https://doi.org/10.1023/A:1015630930326>
- Schmitt, A., Den Hartog, D. N., & Belschak, F. D. (2016). Transformational leadership and proactive work behaviour: A moderated mediation model including work engagement and job strain. *Journal of Occupational and Organizational Psychology*, 89(3), 588–610. <https://doi.org/10.1111/joop.12143>
- Scott, P. G., & Pandey, S. K. (2005). Red tape and public service motivation: Findings from a national survey of managers in state health and human services agencies. *Review of Public Personnel Administration*, 25(2), 155–180. <https://doi.org/10.1177/0734371x04271526>
- Shim, D. C., Park, H. H., & Eom, T. H. (2017). Street-level bureaucrats' turnover intention: Does public service motivation matter? *International Review of Administrative Sciences*, 83(3), 563–582. <https://doi.org/10.1177/0020852315582137>
- Sonnentag, S., Binnewies, C., & Mojza, E. J. (2010). Staying well and engaged when demands are high: The role of psychological detachment. *Journal of Applied Psychology*, 95(5), 965–976. <https://doi.org/10.1037/a0020032>
- Steijn, B., & van der Voet, J. (2019). Relational job characteristics and job satisfaction of public sector employees: When prosocial motivation and red tape collide. *Public Administration*, 97(1), 64–80. <https://doi.org/10.1111/padm.12352>
- Taber, B. J., & Blankemeyer, M. (2015). Future work self and career adaptability in the prediction of proactive career behaviors. *Journal of Vocational Behavior*, 86, 20–27. <https://doi.org/10.1016/j.jvb.2014.10.005>
- Urbanaviciute, I., Pociute, B., Kairys, A., & Liniauskaitė, A. (2016). Perceived career barriers and vocational outcomes among university undergraduates: Exploring mediation and moderation effects. *Journal of Vocational Behavior*, 92, 12–21. <https://doi.org/10.1016/j.jvb.2015.11.001>
- Van Laethem, M., Beckers, D. G. J., de Bloom, J., Sianoja, M., & Kinunen, U. (2019). Challenge and hindrance demands in relation to self-reported job performance and the role of restoration, sleep quality, and affective rumination. *Journal of Occupational and Organizational Psychology*, 92(2), 225–254. <https://doi.org/10.1111/joop.12239>
- Van Loon, N. M. (2017). From red tape to which performance results? Exploring the relationship between red tape and various dimensions of performance in healthcare work units. *Public Administration*, 95(1), 60–77. <https://doi.org/10.1111/padm.12294>
- Van Yperen, N. W., & Snijders, T. A. (2000). A multilevel analysis of the demands–control model: Is stress at work determined by factors at the group level or the individual level? *Journal of Occupational Health Psychology*, 5(1), 182–190. <https://doi.org/10.1037/1076-8998.5.1.182>
- Walker, R. M., & Brewer, G. A. (2008). An organizational echelon analysis of the determinants of red tape in public organizations. *Public Administration Review*, 68(6), 1112–1127. <https://doi.org/10.1111/j.1540-6210.2008.00959.x>
- Wombacher, J. C., & Felfe, J. (2017). Dual commitment in the organization: Effects of the interplay of team and organizational commitment on employee citizenship behavior, efficacy beliefs, and turnover intentions. *Journal of Vocational Behavior*, 102, 1–14. <https://doi.org/10.1016/j.jvb.2017.05.004>
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands–resources model. *International Journal of Stress Management*, 14(2), 121–141. <https://doi.org/10.1037/1072-5245.14.2.121>
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior*, 74(3), 235–244. <https://doi.org/10.1016/j.jvb.2008.11.003>
- Zhang, W. (2019). The effect of career adaptability on career planning in reaction to automation technology. *Career Development International*, 24(6), 545–559. <https://doi.org/10.1108/CDI-05-2018-0135>