

MASTER

The Experience of Red Tape among Dutch Detectives exploring relations between job characteristics, red tape, and work engagement

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Department of Industrial Engineering
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The Experience of Red Tape among Dutch Detectives: exploring relations between job characteristics, red tape, and work engagement

Master Thesis

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Abstract

Red tape, which is often used to denote unmanageable paperwork, structural complexity, or dysfunctional rules, has been a big problem for the Dutch Police for over 20 years. In literature, a distinction is made between organizational red tape and bureaucratic red tape. Organizational red tape focuses more on objective indications of red tape such as ineffective rules, regulations, and procedures, whereas bureaucratic red tape focuses on the experience of compliance burden and thus provides a more subjective view of red tape. This thesis takes a psychological perspective and focuses on bureaucratic red tape using the Job Demands-Resource (JD-R) model for work engagement. Thereto, this study investigates how job characteristics relate to perceptions of red tape, and how these perceptions are related to detectives' motivation using the concept of work engagement. The following question is answered: *Which job characteristics relate to the experience of red tape, and how can these be addressed to improve work engagement in the presence of red tape?* A mixed-method research approach was used consisting of in-depth interviews (n=16) followed by a daily diary study (n=111). The in-depth interviews were analyzed using Reflexive Thematic Analysis (RTA) and served to identify potential job characteristics related to the experience of red tape. Four relevant job characteristics were identified: 1) the presence of illegitimate tasks, 2) an increasing task complexity, 3) a high workload, and 4) a lack of independence at work, and two of these (task complexity and task interdependence) were included in the diary study. In the daily diary study relations between job characteristics (task complexity, task interdependence), job resources (autonomy, work-related support), personal resources (public service motivation, resilience), red tape, and work engagement were explored using Multilevel Modeling (MLM). Task complexity and task interdependence were found unrelated to red tape, and therefore job characteristics are not related to the experience of red tape. Furthermore, autonomy was found directly related to work engagement, and red tape acted as a moderator on the relationship between work-related support and work engagement, and resilience and work engagement, respectively. The moderating role suggests that in the presence of red tape, detectives rely on their job and personal resources to become engaged in their work. Therefore, work-related support and resilience should be addressed to improve work engagement in the presence of red tape.

Keywords

Red tape, Job Demands-Resource model, work engagement, public sector

Preface

The publication of this study reflects the finalization of my graduation project to obtain my master's degree in Operations Management & Logistics from Eindhoven University of Technology. Over the past 7.5 years, I have been introduced to a variety of organizational aspects, which helped me in gaining knowledge on logistics, economics, psychology, and many more. However, if I have to say one thing that will stay with me it is that a successful business cannot thrive without having motivated, committed, and healthy employees.

My interest has always been in the human aspects of organizations, which is why I chose to perform my master's thesis in the department of Human Performance Management. During my bachelor's, my attention was caught by the work of Eva Demerouti and her JD-R model. As this model forms the basis for my thesis, it has also proven very useful in my personal life.

Although this project was anything but easy and definitely turned out to be the most challenging part of my studies, I am very grateful for the help and support my mentor has given me. Without her motivational approach, I would have probably not got so far. I would also like to express my appreciation to Lina Rachow, with whom I collaborated on this project. It was very nice to have someone working on the same topic to be able to brainstorm and share insightful information, but more importantly to motivate each other. Furthermore, I would also like to thank Sonja Rispen for reviewing my work and providing me with valuable feedback. Finally, I want to thank my friends and family, who not only during this project but during my entire studies have always believed in me. Also, I want to thank my friends in particular for making my student time a definite highlight!

The completion of this thesis marks the end of a chapter. Luckily, my book is far from finished, so I am looking forward to bringing all my knowledge into practice in the next chapter!

Lydia Kelder

Executive Summary

Police detectives in the Netherlands experience too much work pressure from administrative tasks and dealing with paperwork which is referred to as red tape. Several investigations have been performed to understand the problematic nature of red tape within the Dutch Police, however, a solution to this problem has not been identified yet. In dealing with this issue, the Ministry of Justice now advocates a different approach. The detective as a public professional with intrinsic work motivation is central and always able to perform his public task in a value-driven manner. This thesis takes place within the scope of a wider research project on the experience of red tape among Dutch detectives and particularly focuses on work engagement. Therefore, a psychological perspective is taken to study how specific job characteristics relate to red tape perceptions, and how these perceptions influence detectives' motivation using the concept of work engagement. With respect to red tape, job characteristics remain a relatively unexamined area in literature and thus provide an interesting area to explore. Furthermore, work engagement, as a motivational construct, is an upcoming topic within public sector research. Nevertheless, it has been argued to provide a promising mechanism to study how employees are dealing with red tape. The research question central to this thesis is “*Which job characteristics relate to the experience of red tape, and how can these be addressed to improve work engagement in the presence of red tape?*” and is answered using the following two sub-questions:

- 1. Which job characteristics are related to the experience of red tape?*
- 2. What is the role of red tape on the motivational process leading to work engagement?*

To address these questions, this study uses a mixed-method research approach with a two-study sequential exploratory design. In study 1, I transcribed and analyzed audio recordings of in-depth interviews with detectives (n=16) to explore their work context. I used Reflexive Thematic Analysis (RTA) to identify which potential job characteristics could relate to red tape. In study 2, detectives (n=111) participated in a daily diary study where data was obtained on two job characteristics (identified and chosen from study 1), job resources, personal resources, red tape, and work engagement. Multilevel Modeling (MLM) was performed to explore the relationship between task interdependence and task complexity with red tape. Furthermore, relationships between job and personal resources with work engagement and the moderation effect of red tape on each of these relations were explored.

The first study explored the work context which yielded 44 factors that described hindering aspects (35 factors) or facilitating aspects (9 factors) of detective work. Following the definition of bureaucratic red tape, which is the role-specific subjective experience of compliance burden imposed by an organization (Pandey, 2021), 17 factors were linked to red tape. The hindering and facilitating factors were interpreted using the Job Demands-Resource model (Bakker & Demerouti, 2017). Job demands such as illegitimate tasks, increasing task complexity, a high workload, work pressure, and emotionally demanding interactions were hindering detectives in their work. In addition, a lack of job resources such as organizational support, external collaboration, and independence at work also hindered the detectives. Contrarily, job resources such as a positive team climate, the experience of coworker-, supervisor- and work culture support facilitated detectives in their work. Using the JD-R model created the possibility to link job characteristics and red tape. Four job characteristics were found related to red tape: 1) the presence of illegitimate tasks, 2) increasing task complexity, 3) high workload, and 4) lack of independence at work. Numbers two and four were included and conceptualized as task interdependence and task complexity in study 2.

The second study explored: 1) the relationship between job characteristics with red tape, 2) the relationship between job resources and personal resources with work engagement, and 3) the moderating role of red tape on the previous. First, the results showed that task interdependence and task complexity were not significantly related to the experience of red tape. Furthermore, a direct relation between autonomy and work engagement was found, whereas, for work-related support, public service motivation, and resilience no direct relationships were found. Finally, red tape acted as a moderator on two relations 1) work-related support and work engagement, and 2) resilience and work engagement.

Integration of the results shows that studies 1 and 2 contradict each other. Signs from the workplace indicate the presence of red tape in certain job characteristics of detective work. However, these job characteristics were found statistically unrelated to the experience of red tape. These findings suggest that addressing task complexity and task interdependence is unlikely going to minimize perceptions of red tape for detectives. Furthermore, study 2 shows that red tape moderates how work-related support and resilience are related to work engagement. It was found that when detectives experienced high red tape, they were more engaged when they either reported high work-related support or high resilience. Additionally, when detectives experienced low red tape, they were less engaged when they reported high work-related support. This was not found for resilience. These findings suggest that in the presence of high red tape, detectives rely on their job and personal resources to become engaged in their work. In other words, they use job and personal resources to cope with red tape. However, the findings also suggest that not every resource is advantageous in coping with red tape. For example, detectives with high autonomy were more engaged, but this relationship was unaffected by the experience of red tape. In addition, public service motivation was not found engaging at all.

In conclusion, red tape was found to be present in certain aspects of detective work, but the experience of red tape could not be linked to task complexity or task interdependence. Therefore, job characteristics are not related to the experience of red tape. This suggests that addressing these job characteristics is unlikely going to minimize the experience of red tape among detectives. However, perceptions of red tape remain a daily reality for detectives and this problem can also be addressed by finding ways in which detectives deal with red tape. This study shows the potential of work-related support and resilience as resources that detectives use to cope with red tape, which should be addressed to improve work engagement in the presence of red tape.

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1. Introduction

1.1. Background

Police officers in the Netherlands experience too much work pressure from administrative tasks and dealing with paperwork. Due to all this paperwork, police officers cannot fulfill their tasks at the rate their job requires them to do. An employee satisfaction survey in 2017 revealed that this problem is most prominent among detectives and therefore the Police decided to focus on reducing the administrative burden in the Criminal Investigation Department (Brepoels, 2018). In addition, the police unions have exerted pressure on the Ministry of Justice to improve the situation otherwise they threaten with actions. In reaction to this, in 2018 the ministry of Justice set up a committee to deliver advice on the issue of administrative burden in detection work. The commission (i.e., the Zuurmond committee) consists of representatives from different disciplines in science, the Police, and the Public Prosecution Service (PPS). The committee has already conducted two studies and now advocates an approach to the reduction of administrative burden in which the detective, as a public professional with an intrinsic work motivation, is always central and able to perform his public task in a value-driven manner (Grappenhuis, 2020). Eindhoven University of Technology (TUE) has been asked to advise the Ministry of Justice on the issue using a work psychological approach and has started a research project on the experience of administrative tasks among Dutch detectives. This thesis takes place within the scope of the research project and in particular focuses on what drives the experience of red tape and how this experience influences work engagement.

1.2. Introduction to the subject

A problematic factor, often affiliated with public organizations, is red tape. The term describes the bureaucracy and regulations that impede progress in organizations and is used to refer to aspects such as formalization, structural complexity, unmanageable paperwork, excessive or dysfunctional rules, procedural constraints, and task delays (Brewer & Walker, 2010). These aspects typically characterize obstacles encountered in public organizations. Red tape has received great attention in public sector research, and scholars generally agree about its' pathological nature (Blom et al., 2021). Over the years, red tape has been found to have negative consequences for both the organization and its employees. On the organizational level, red tape has a constraining effect on organizational practices and managerial behavior through the presence of red tape in management systems, which results in lower organizational performance (Blom et al., 2021; George et al., 2021). On the employee level, red tape has been argued to alienate employees from their work, undermining employee attitudes and behaviors such as work satisfaction (Giauque et al., 2012), organizational commitment (Stazyk et al., 2011), and turnover intention (Brunetto et al., 2017).

Although scholars generally agree about the pathological nature, there is little consistency in research about the causes of red tape (Coursey & Pandey, 2007). This inconsistency is best explained through two distinct theoretical perspectives that have emerged throughout the years and who use a different conceptualization of red tape. Following Campbell (2019), these are called the functional efficacy perspective and the psychological process perspective (Campbell, 2019). The functional efficacy approach focuses on organizational red tape, which is defined as "rules, regulations, and procedures that remain in force and entail a compliance burden for the organization but have no efficacy for the rules' functional object" (Bozeman, 1993, p. 283). In this case, red tape can be present in rules, regulations, and procedures, where employees objectively judge the content of these in terms of costs and benefits to the organization. Kaufmann et al. (2020) describe organizational red tape as pathological formalization, meaning that red tape arises from unnecessary or ineffective rules. In contrast, the psychological process views red tape as a subjective concept and studies perceptions of red tape.

Following Pandey (2021), this is called bureaucratic red tape, which is defined as a “role-specific subjective experience of compliance burden imposed by an organization” (Pandey, 2021, p. 4). The psychological process argues that evaluations of rules, regulations, and procedures cannot be isolated from daily organizational life and that red tape is experienced when the organizational environment interferes with individual goals. In this case, red tape presents an underlying organizational property (Coursey & Pandey, 2007) which is transmitted through organizational structure and task-level requirements. In this vein, Kaufmann et al. (2019) showed that employees perceive higher levels of red tape if they work in more formalized, centralized, and hierarchical companies. Therefore, both perspectives state that red tape is burdensome, but they provide different theories on the channels through which red tape is transmitted, and how it is evaluated by employees. However, as scholars tend to overlook these differences (Campbell, 2019), organizational and bureaucratic red tape are often intertwined in research which explains the inconsistency in the causes of red tape.

Furthermore, it is important to note that neither perspective is superior to the other, instead, they are suitable for different purposes. The possible effects of red tape on employees and the relevant factors influencing red tape perceptions can only be studied using a psychological perspective (Zahradnik, 2022). Since the public servant with an intrinsic work motivation is central to this thesis, a psychological process approach is taken and hence the focus is on bureaucratic red tape. In addition, two recent meta-analyses have shown that red tape has a stronger negative effect on employee wellbeing than on organizational performance (Blom et al., 2021; George et al., 2021) which favors studying red tape from a psychological perspective.

A recent research stream following a psychological perspective has studied red tape as a typical workplace stressor for public servants using the Job-Demands Resource model (e.g., see: Borst, 2018; Giauque et al., 2013; Mussagulova, 2021; Steijn & van der Voet, 2019). The JD-R model (Bakker & Demerouti, 2007) assumes that a working environment can be classified into job demands and job resources. Job demands refer to the aspects of a job that require effort or skill, whereas job resources refer to aspects that are either functional in achieving work goals, reducing job demands, or stimulating personal growth. Furthermore, the model includes personal resources, which refer to the beliefs people hold regarding the extent of control that they have over their environment. Personal resources can play a similar role as job resources. The JD-R model has been used to study how demands and resources are causing strain and motivation, which in turn predicts employee attitudes, behavior, and performance.

Following previous work, red tape is framed as a typical job demand of the public sector, and the JD-R model is used to study the problem of red tape among Dutch detectives. More particular, the experience of red tape is studied through the motivational process leading to work engagement, one of the underlying mechanisms of the JD-R model (Bakker & Demerouti, 2008). Work engagement is a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). It describes a state of employee well-being and serves as a predictor for many positive attitudinal, behavioral, and performance outcomes (Borst et al., 2020). Since the public servant with an intrinsic work motivation is central, the JD-R model for work engagement provides an interesting approach to studying how red tape influences detectives’ motivation.

The reasons to combine the study of red tape and work engagement are twofold. First, as mentioned before, red tape undermines employee attitudes and behavior (e.g., job satisfaction, organizational commitment, turnover intention) by alienating employees from their work (Blom et al., 2021; George et al., 2021). These employee attitudes and behaviors have been positively related to work engagement (Agyemang & Ofei, 2013; Rai & Maheshwari, 2021; Yalabik et al., 2013), thus red tape and work engagement share similar employee outcomes, albeit their influence are opposite. Second, in contrast

to red tape, factors influencing work engagement have been well-established in literature and can be studied using the JD-R model for work engagement (Bakker & Demerouti, 2008). Drivers of work engagement are grouped into two categories: contextual factors (i.e., job resources) and individual factors (i.e., personal resources) (Lizano, 2021). JD-R theory states that job and personal resources start a motivational process leading to work engagement and these resources become more salient when employees are confronted with high job demands (Bakker & Demerouti, 2008). Therefore, framing red tape as a job demand, and following the motivational process leading to work engagement provides a psychological mechanism to study the influence of red tape on public servants' motivation. This is interesting because the appraisal of job stressors is accompanied by ambiguity and therefore further exploration of red tape as a job demand should be on identifying psychological mechanisms through which red tape has an impact (Pandey, 2021).

In this thesis, the JD-R model is used to study the work context of Dutch detectives. Two typical job characteristics of detective work - task interdependence and task complexity - are brought in relation to red tape. According to Fass et al. (2006), a very distinguishing trait of a police organization is the interdependent nature of the tasks involved and hence task interdependence is studied, which refers to the degree to which individuals in a work environment depend on one another to complete work (Rico et al., 2011). Furthermore, Brepoels (2018) found that detectives complain about the ever-increasing complexity of their administrative tasks. This is studied through task complexity, which refers to an individual's perception of the complexity of work tasks (Liu & Li, 2012). Furthermore, drivers of work engagement in the public sector are studied and tested in the context of Dutch detectives. The drivers include the job resources autonomy and work-related support, and the personal resources Public Service Motivation (PSM) and resilience (personal resources). PSM refers to "an individual's predispositions to respond to motives grounded primarily or uniquely in public institutions and organizations" (Perry & Wise, 1990, p. 368). Resilience refers to "the ability to bounce back from adverse events or cope successfully" (van den Heuvel et al., 2010, p. 130). Finally, red tape is framed as a typical job demand in the public sector, and the influence of red tape (i.e., moderating role) on the motivational process leading to work engagement is studied. This provides insight into how public servants use their resources to cope with red tape, and through the mechanisms of work engagement mitigate the negative effects of red tape on employee attitudes and behaviors.

1.3. Research questions

This thesis follows a psychological process perspective to study potential factors influencing the perception of red tape and the influence of red tape on detectives' motivation using the concept of work engagement. This thesis contributes to the literature in several ways. First, most research has focused on understanding the negative effects of red tape, while understanding the sources of red tape have received less attention (Bozeman & Anderson, 2016). As job characteristics remain a relatively unexamined in red tape research (Ponomariov & Boardman, 2011), this thesis explores new relationships and thereby contributes to creating new understanding of sources of red tape. Second, researchers have called to perform more work engagement research in the public sector (Borst, 2018; Zahair & Kaliannan, 2022). This thesis adheres to this call by examining drivers of work engagement in a new organizational context. Finally, integrating red tape in the JD-R model as a typical job demand of the public sector provides the opportunity to explore how detectives maintain their work engagement when they are confronted with red tape. According to Pandey (2021), the exploration of red tape as a job demand should be on identifying psychological mechanisms through which red tape has an impact. By focusing on the motivational process leading to work engagement, this thesis contributes to the literature by exploring the potential of a particular psychological mechanism. In short, this research contributes to the public administration literature on red tape and work engagement by exploring new

and existing relationships in a novel organizational context. The focus is on elaborately answering the following research question:

Which job characteristics relate to the experience of red tape, and how can these be addressed to improve work engagement in the presence of red tape?

To answer this question a mixed-method research approach with an exploratory design is used to study relations between job characteristics and red tape, the drivers of work engagement, and the influence of red tape on the motivational process. First, explorative interviews are held to explore the work context of Dutch detectives followed by a daily diary study to test relations between the studied variables. This approach corresponds with the two-stage procedure proposed to use the JD-R model as a tool in organizational research (Bakker & Demerouti, 2007). This research is guided by the following two sub-questions:

1. *Which job characteristics of detective work are related to the experience of red tape?*
2. *What is the role of red tape on the motivational process leading to work engagement?*

2. Theoretical Background

2.1. Red tape

This study follows the psychological process perspective of red tape and follows the definition of bureaucratic red tape which is “the role-specific subjective experience of compliance burden imposed by an organization” (Pandey, 2021, p. 4).

Over the years, red tape is linked with many organizational-level outcomes and employee-level outcomes. On the organizational level, red tape has a constraining effect on organizational practices and managerial behavior, which results in lower organizational performance (Blom et al., 2021). George et al. (2021) explain this negative effect on performance through the presence of red tape in management systems. These systemic influences hinder the recruitment, retention, and motivation of personnel and make it hard for managers to obtain useful performance information. More specifically, red tape may constrain managers in rewarding good performers and punishing poor performers (S. Pandey et al., 2007), inhibit managers to provide employee support (Hattke et al., 2018), and hinder managers from taking risks (Chen & Bozeman, 2012). On the employee level, red tape has been negatively related to employee attitudes and behavior such as work satisfaction (Giauque et al., 2012), organizational commitment (Stazyk et al., 2011), and turnover intention (Brunetto et al., 2017). These negative influences can be explained through the mechanism of alienation (Blom et al., 2021; George et al., 2021). Red tape, in the form of procedural constraints such as close supervision and sharply specified procedures, reduces worker discretion. A reduced discretion may separate employees from organizational goals by removing participation and reducing the meaningfulness of work (DeHart-Davis & Pandey, 2005). Therefore, red tape enhances different forms of alienation (powerlessness and meaninglessness). These feelings, in turn, have a negative influence on employee attitudes and behavior.

The above describes various negative outcomes of red tape, but recent research syntheses highlight the strongest influence of red tape on employee wellbeing (Blom et al., 2021; George et al., 2021). This emphasizes the significance of following a psychological perspective. Researchers following a psychological approach have studied red tape as a typical workplace stressor for public servants using the Job Demands-Resource (JD-R) Model (Borst, 2018; Giauque et al., 2013; Mussagulova, 2021; Steijn & van der Voet, 2019). These studies framed red tape as a hindering job demand inhibiting an individuals’ work engagement (Borst et al., 2019; Mussagulova, 2021), increasing stress perception (Giauque et al., 2013), and thwarting the achievement of personal goals (Steijn & van der Voet, 2019). These studies serve as starting point to explore the problem of red tape in the public sector. The following section describes the JD-R model and explains its use in studying red tape.

2.2. Job Demands - Resource Model

The Job Demands-Resource (JD-R) model (Bakker & Demerouti, 2017) is a popular occupational stress model which has been used to study worker well-being and performance in different occupational contexts. The model relies on the basic assumption that a working environment can be classified into job demands and job resources. Job demands refer to the aspects of a job that require effort or skill. Job resources refer to aspects that are either functional in achieving work goals, reducing job demands, or stimulating personal growth. Furthermore, the model includes personal resources, which refer to the beliefs people hold regarding the extent of control that they have over their environment. The JD-R model states that demands and resources trigger two underlying psychological processes causing strain and motivation on the job. The health impairment process describes that high job demands are causing strain whereas the motivational process describes that job and personal resources have motivational potential. Next to these main processes, interaction effects occur between the demands and resources.

That is, job and personal resources can buffer the impact of job demands on strain. Furthermore, job and personal resources gain motivational potential in the presence of high job demands. Finally, the model suggests that job strain can negatively affect employee outcomes and job performance, while motivation has a positive effect on these aspects.

The advantage of the JD-R model, compared to other occupational stress models, is that it provides flexibility to incorporate different demands and resources according to the studied occupational context. (Demerouti & Bakker, 2007). For example, the Demand-Control-Support Model (DCSM) states that employees have a higher risk of poor psychological well-being when their jobs are characterized by high demands, low autonomy, and low social support (Kristensen, 1995). This model only accounts for two job resources (i.e. autonomy and social support) and regards work pressure as the most important job demand. Another model, the Effort-Reward-Imbalance Model (ERI), posits that the recurrent experience of failed reciprocity at work increases the risks of stress (Siegrist, 2016). More particular, it regards salary, esteem reward, and status control as important job resources that buffer the impact of job demands on strain (Bakker & Demerouti, 2007). Therefore, these two models have been restricted to a given limited list of study variables (i.e. demands and resources). However, every job (and every organization) can have different aspects that are demanding and thus might also require other resources. The JD-R model allows the incorporation of these different demands and resources in the study of employee well-being, and thus provides a framework to study a main demanding characteristic of the public sector, red tape.

Previous studies framed red tape as a hindering job demand inhibiting an individual's work engagement (Borst et al., 2019; Mussagulova, 2021), increasing stress perception (Giauque et al., 2013), and thwarting the achievement of personal goals (Steijn & van der Voet, 2019). However, the appraisal of job demands is accompanied by ambiguity and thus further exploration of red tape as a job stressor should be on identifying psychological mechanisms through which red tape has an impact (Pandey, 2021). Since the public servant with an intrinsic work motivation is central to this thesis, red tape is studied following the motivational process leading to work engagement.

In the following, first section 2.3 zooms in on typical job characteristics of detective work and how these relate to perceptions of red tape. Second, section 2.4 zooms in on the concept of work engagement and how it makes sense to study it with red tape.

2.3. Job Characteristics Related to Red Tape

The psychological process perspective argues that perceptions of red tape are transmitted through organizational structure and task-level requirements (Pandey, 2021). The organizational context thus plays an important role and therefore it makes sense to study how these contextual factors drive perceptions of red tape. There is limited research on the role of occupational characteristics in the perception of red tape (Ponomariov & Boardman, 2011). Therefore, the inclusion of the two job characteristics in this study is primarily based on empirical research, but it is supported by relevant literature.

Task Interdependence

Task interdependence refers to the degree to which individuals in a work environment depend on one another to complete work (Rico et al., 2011). This is a distinguishing characteristic of Police organizations (Fass et al., 2006). Detectives work in teams supervised by a senior officer, collaborate with other detective departments and police officers, and report to the Public Prosecution Office. Additionally, detectives are in contact with various external organizations such as aid agencies, military police, and healthcare institutions. This results in a great diversity of stakeholders. According to Bozeman's (2000) external control perspective, this diversity of stakeholders is one of the main reasons

why public organizations tend to have more red tape. The presence of many diverse stakeholders leads to an increase in rules, regulations, and procedures, which are easier to misunderstand and undermine when they conflict with one's work, leading to red tape. Furthermore, Bretschneider (1990) argues that the involvement of many stakeholders contributes to the interdependent nature of public organizations. Therefore, it is expected that task interdependence, as a result of a great diversity of stakeholders who are bringing along more rules, regulations, and procedures, relates to red tape. Hence, detectives who experience high task interdependence are expected to experience more red tape compared to detectives who experience less task interdependence.

H1: Task interdependence is positively related to red tape

Task Complexity

Detective work is complex. Detectives have many different tasks and responsibilities while solving a case. For example, collecting, processing, and analyzing evidence; interrogating suspects and witnesses; preparing police reports and submitting these to the Public Prosecution Office. A recent study shows that detectives complain about the ever-increasing complexity of their administrative tasks (Brepoels, 2018), and thus we will zoom in on the job characteristic task complexity. Different perspectives on task complexity exist and this study follows the interaction viewpoint in studying task complexity as a product of the interaction between task and task performer characteristics (Liu & Li, 2012). This viewpoint emphasizes the importance of perceived tasks, as the same task may be interpreted differently by each task performer, and perceptions form the basis for interpreting information needs and actions. Therefore, task complexity refers to an individual's perception of the complexity of work tasks. Since detectives complain about the complexity of administrative work, and a large part of their work consists of administrative tasks (Brepoels, 2018), it is interesting to study whether task complexity drives red tape perceptions. Ingrams (2021) argues that task complexity could relate to the perception of red tape because both are influenced by task characteristics such as the number of rules and administrative steps needed to complete a task. Therefore, it is expected that detectives that perceive their administrative tasks as complex experience more red tape compared to detectives that perceive these tasks as less complex.

H2: Task complexity is positively related to red tape

2.4. The Influence of Red Tape on The Motivational Process

This section explains the concept of work engagement, and how the JD-R model for work engagement (Bakker & Demerouti, 2008) can be used to study the influence of red tape on the motivation process.

2.4.1 Work Engagement

Work engagement is a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Engaged employees have high levels of energy and mental resilience while working (vigor). Furthermore, they are strongly involved with work and experience a sense of significance, enthusiasm, and challenge (dedication). Finally, they are fully immersed in their work, whereby time passes quickly (absorption) (Bakker & Demerouti, 2008). Therefore, work engagement refers to a psychological connection with one's work, rather than an attitude towards features of the organization (Christian et al., 2011).

Employees experiencing high levels of work engagement enjoy good health. Research has shown that work engagement is related to excellent physical health, very low levels of anxiety and depression, and low levels of burnout (Schaufeli et al., 2002). Work engagement describes a state of employee well-being and throughout the years has received great attention because of its positive consequences for both employees and the organization. These consequences are distinguished into attitudinal, behavioral,

and performance outcomes (Borst et al., 2020). For example, work engagement has been positively related to employee attitudes such as job satisfaction (Rai & Maheshwari, 2021) and organizational commitment (Agyemang & Ofei, 2013); behavioral consequences such as a lower turnover-intention (Yalabik et al., 2013) and higher work-life balance (Wood et al., 2020); and performance outcomes such as in-role and extra-role performance (Bakker et al., 2014).

Given the many positive consequences, both researchers and practitioners have been interested in examining and understanding employees' work engagement (Ahmed, 2019). The JD-R model for work engagement (Bakker & Demerouti, 2008) provides a mechanism to study the drivers and consequences of work engagement. The drivers of work engagement can be grouped into two categories, contextual factors (i.e. job resources) and individual factors (i.e. personal resources) (Lizano, 2021). Following JD-R theory, job and personal resources start a motivational process leading to work engagement, and these resources gain motivational potential in the presence of high job demands. In turn, work engagement is used to predict various employee and organizational outcomes.

The JD-R model for work engagement provides a psychological mechanism to study the influence of red tape on the motivational potential of different job and personal resources. As mentioned before, red tape undermines employee attitudes and behavior (e.g. job satisfaction, organizational commitment, turnover intention) by alienating employees from their work (Blom et al., 2021; George et al., 2021). These employee attitudes and behaviors have also been related to work engagement (Agyemang & Ofei, 2013; Rai & Maheshwari, 2021; Yalabik et al., 2013), thus red tape and work engagement share similar employee outcomes, albeit their influence are opposite. This comes as no surprise since many scholars have considered work engagement and work alienation as bipolar opposites (Pati & Kumar, 2015). Furthermore, in meta-analytic research of public-private differences (Borst et al., 2020) it was found that the effect of work engagement on job satisfaction, organizational commitment, and turnover intention was stronger for employees working in the public sector. This indicates the importance of work engagement for public servants. However, in contrast to red tape, factors influencing work engagement have been well-established in literature and can be studied using the JD-R model for work engagement (Bakker & Demerouti, 2008). Therefore, framing red tape as a job demand, and following the motivational process leading to work engagement provides a psychological mechanism to study the influence of red tape on public servants' motivation. This is interesting to know because it can explain how public servants use their resources to cope with red tape, and through the mechanism of work engagement mitigate the negative effects on employee attitudes and behaviors.

In the following, the JD-R model for work engagement is translated to the work context of Dutch detectives. First, relevant job resources and personal resources with respect to work engagement are introduced. Second, the role of red tape in the motivational process is explained.

2.4.2. Job and Personal Resources

Drawing on the assumption that public servants are more intrinsically than extrinsically motivated at their work (Buelens & van den Broeck, 2007), Borst et al. (2019) show that work-related resources better predict public servants' work engagement than organization-related resources do. Therefore, this study includes two work-related resources which are autonomy and work-related support. Furthermore, two personal resources, Public Service Motivation (PSM) and resilience, are included because these represent personality characteristics often encountered by public servants (PSM) or deemed interesting in a policing setting (resilience).

Autonomy

Autonomy refers to "the extent to which a job allows freedom, independence, and discretion to schedule work, make decisions, and choose the methods used to perform tasks" (Morgeson & Humphrey, 2006,

p. 1323). Brunetto et al. (2017) state that autonomy is an important work characteristic for public servants delivering social services because in these occupations demand for service often exceeds the supply of resources. Since the Dutch police is currently dealing with a nationwide shortage of detectives, detectives must perceive autonomy in their work. As a job resource, autonomy is positively related to work engagement in both the private sector (Mustosmäki et al., 2013; Taipale et al., 2011) and the public sector (Borst, 2018; Borst et al., 2019; Mussagulova, 2021). Autonomy is argued to give employees a sense of control over their work which enables higher work involvement resulting in work engagement (de Spiegelaere et al., 2016). Borst (2018) shows that autonomy especially predicts work engagement for public-sector employees with a people-processing orientation, such as detectives. Therefore, a positive relationship between autonomy and work engagement is expected.

H3: Autonomy is positively related to work engagement

Work-related Support

Detectives encounter many different stakeholders while performing their work (van Tergouw et al., 2020). Their work requires interactions with many stakeholders (e.g., colleagues, police officers, the Public Prosecution Service, victims, suspects, witnesses). These interactions create a social environment in which detectives can access various forms of social support. Social support has often been studied as a job resource and research has repeatedly shown that it is positively related to work engagement (Bakker & Demerouti, 2008; Jolly et al., 2021; Othman & Nasurdin, 2013; Taipale et al., 2011). However, this study is particularly interested in support received from one's immediate or larger work environment which is defined as work-related support (Husu, 2005). Since detectives operate in a large social environment, they have many opportunities to obtain work-related support. Therefore it is expected that detectives who experience higher levels of work-related support will also have higher levels of work engagement.

H4: Work-related support is positively related to work engagement

Public Service Motivation

Public Service Motivation (PSM) is a personality trait (Perry & Hondeghem, 2008) typically studied among public servants. PSM refers to "an individual's predispositions to respond to motives grounded primarily or uniquely in public institutions and organizations" (Perry & Wise, 1990, p. 368). These motives consist of attraction to public policy making (APP), commitment to the public interest (CPI), compassion, and self-sacrifice (Perry & Hondeghem, 2008). PSM describes an orientation to serve the public good. Employees that are highly motivated to serve the public are likely to experience a congruence between individual goals and organizational goals, which makes them more likely to become engaged in their work (Cooke et al., 2019). Furthermore, PSM describes the desire to undertake meaningful and significant work and the willingness to help others, which both are strong engaging properties for public servants (Borst, 2018). Therefore, PSM can be seen as a personal resource with motivational potential. Several studies have already provided evidence for the motivational potential of PSM. For example, Simone et al. (2016) show that high levels of PSM are correlated with high levels of work engagement among Italian inspectors. Furthermore, Cooke et al. (2019) investigate the relation between PSM and work engagement in the JD-R model. They study whether PSM acts as a resource predicting work engagement, or if it acts as a buffer against the negative relation between job demands (i.e. red tape) and work engagement. Their findings support the role of PSM as a resource directly predicting work engagement. Similar results are found in another study that includes PSM as a personal resource (Borst, 2018). Therefore, PSM is included as a personal resource and is expected to be positively related to work engagement.

H5: PSM is positively related to work engagement

Resilience

Resilience refers to “the ability to bounce back from adverse events or cope successfully” (van den Heuvel et al., 2010, p. 130) It is one of the four psychological capital (PsyCap) constructs originating from the study of Positive Organizational Behavior (POB) (Luthans & Youssef, 2004) and thus can be considered as a personal resource. Resilience can assist in coping with workplace stress and maintaining positive outcomes when exposed to stress. Police work can be considered one of the most stressful public service occupations (Brunetto et al., 2017), where both organizational stressors (e.g. red tape) and operational stressors (e.g. constant threat of violence) form a daily reality for police officers. As these stressors are inherent to police work, resilience can be considered an important personal resource to perform police work. A negative relation between resilience and stress has been shown among police officers (Brunetto et al., 2017; Gupta et al., 2012), and even for detectives (Fyhn et al., 2016). Furthermore, Lockey et al. (Lockey et al., 2022) show that workplace stressors are negatively related to work engagement among police officers. Since resilience is resourceful in coping with police stressors, a positive relation between resilience and work engagement might be expected due to counteracting the negative effect of stress on work engagement. So far, the relationship between resilience and work engagement has primarily been studied in the healthcare sector (Cao & Chen, 2019; Lyu et al., 2020; I. O. Moon et al., 2013). These studies show that resilience is positively related to work engagement among nurses, which provides support that resilience can act as a personal resource increasing work engagement. However, these studies are executed in the healthcare sector, and more particularly, among nurses. Since nurses, in contrast to detectives, operate within a different occupational context, this positive relation cannot directly be assumed. In this vein, a recent study by Dudau et al. (2020) investigated the influence of resilience on work engagement and compared this between nurses and local government employees (e.g. police officers). For both groups, a positive relation was found, indicating the importance of resilience in different occupational settings. As resilience is an important resource to cope with work stress and police work is a stressful occupation, resilience is expected to be positively related to work engagement.

H6: Resilience is positively related to work engagement

2.4.3. Red Tape as Moderator

The JD-R model proposes that job and personal resources gain motivational potential in the presence of high job demands because these resources help employees in accomplishing goals (Bakker & Demerouti, 2017). Red tape is generally framed as a hindering job demand and argued to hamper on work engagement. However, in situations when both job demands and job resources are high, employees endorse the most positive work attitudes (Bakker et al., 2010). In that case, job demands are embraced as challenge demands rather than hindrance demands, and employees use their job resources to cope with these challenging demands. This reflects the boosting hypothesis (Xanthopoulou et al., 2013). Therefore, in the case that detectives experience high levels of red tape but possess the right job resources to cope with this demand, it might be expected that red tape strengthens the effect of job resources on work engagement.

H7: Red tape moderates the relationship between job resources (autonomy & work-related support) and work engagement, such that the relationship becomes stronger positive when detectives perceive high red tape, and weaker positive when detectives perceive low red tape.

However, Bakker & Sanz-Vergel (2013) show that job demands can either facilitate or undermine the positive impact of personal resources on employee well-being. They argue that whether job demands act as challenges or hindrances differs between individuals. Personal resources reflect individual

characteristics (van den Heuvel et al., 2010) and therefore the moderating effect of red tape on the motivational process can be different. In this vein, it is expected that detectives with high PSM appraise red tape as a hindrance because of a so-called incongruent PSM fit. Employees with a high PSM are highly motivated to serve the public, but the presence of red tape distracts them from realizing this purpose which could have a negative influence on their attitudes (such as job satisfaction and organizational commitment) (Leisink & Steijn, 2009). Since work engagement is a strong predictor of these employee attitudes for public servants (Borst et al., 2020), it is expected that the positive relationship between PSM and detectives' work engagement is weakened in the presence of high red tape. On the contrary, it is expected that detectives with a high resilience appraise red tape as a challenge because they are better at coping with workplace stressors. Several studies executed in a police environment show a negative relation between resilience and stress (Brunetto et al., 2017; Fyhn et al., 2016; Gupta et al., 2012; Lockey et al., 2022), and a negative relation between workplace stress and work engagement (Lockey et al., 2022). Therefore, it might be expected that a high resilience is resourceful in coping with stress and thus the relation between resilience and work engagement is expected to be stronger when detectives experience high levels of red tape.

H8a: Red tape moderates the relationship between PSM and work engagement, such that the relationship becomes weaker positive when detectives perceive high red tape, and stronger positive when detectives perceive low red tape.

H8b: Red tape moderates the relationship between resilience and work engagement, such that the relationship becomes stronger positive when detectives perceive high red tape, and weaker positive when detectives perceive low red tape.

2.5. Overview Conceptual Model and Hypotheses

The conceptual model with the proposed hypotheses is presented in Figure 2.1.

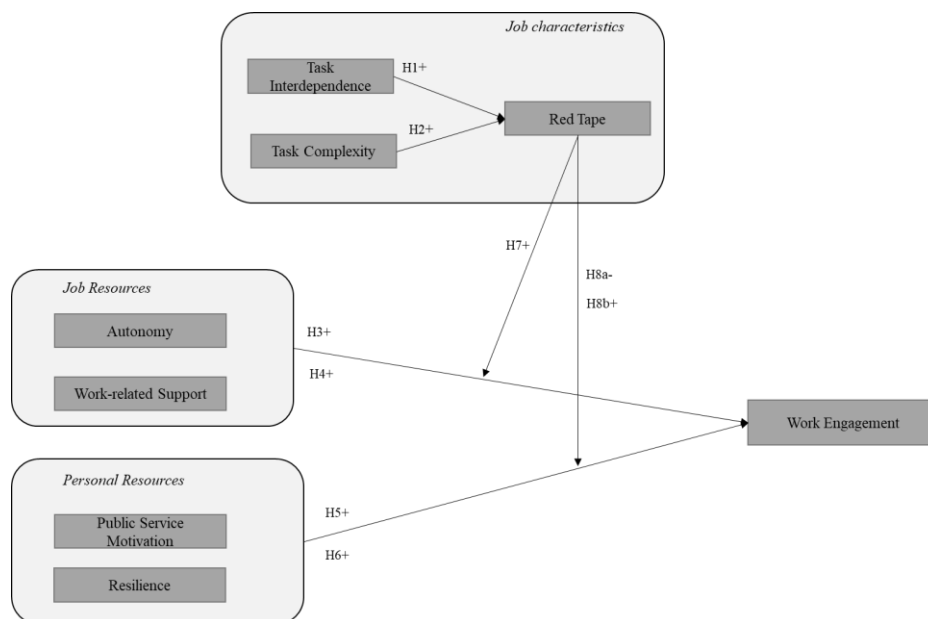


Figure 2.1: Conceptual Model

Hypotheses:

H1: Task interdependence is positively related to red tape

H2: Task complexity is positively related to red tape

H3: Autonomy is positively related to work engagement

H4: Work-related support is positively related to work engagement

H5: PSM is positively related to work engagement

H6: Resilience is positively related to work engagement

H7: Red tape moderates the relationship between job resources (autonomy & work-related support) and work engagement, such that the relationship becomes stronger positive when detectives perceive high red tape, and weaker positive when detectives perceive low red tape.

H8a: Red tape moderates the relationship between PSM and work engagement, that is the relationship becomes weaker positive when detectives perceive high red tape, and stronger positive when detectives perceive low red tape.

H8b: Red tape moderates the relationship between resilience and work engagement, such that the relationship becomes stronger positive when detectives perceive high red tape, and weaker positive when detectives perceive low red tape.

3. Method

3.1. Research Design and Procedure

The research design describes the strategy that was used to answer the question “Which job characteristics relate to the experience of red tape, and how can these be addressed to improve work engagement in the presence of red tape?”. In this study, a mixed-method research approach with an exploratory design was used. A combination of qualitative and quantitative research methods was used, where the results of study 1 (qualitative) helped to inform study 2 (quantitative). This approach is useful in identifying important variables to study quantitatively when the variables are unknown (Creswell & Plano Clark, 2007). Figure 3.1 visualizes the research procedure and is explained below.

Study 1 consisted of a Thematic Analysis (TA) where audio recordings were used of in-depth interviews held with detectives of the Dutch National Police. The in-depth interviews were performed by a researcher working on a similar study and permission was granted to use the recordings in this study. Study 1 served to identify job characteristics related to the experience of red tape and hence provided input for sub-question 1. In particular, the Thematic Analysis was used to explore the work context of Dutch detectives. First, hindering and facilitating factors of detective work were identified, and subsequently, these factors were examined on whether they involved red tape using existing literature on red tape. In turn, the hindering and facilitating factors were interpreted as existing job characteristics following the JD-R model, and the relation between these job characteristics and the experience of red tape was made. The relationship between two of these job characteristics and red tape was quantitatively assessed in study 2.

Study 2 used a within-subjects design to examine the hypothesized relationships presented in the conceptual model. Data was collected using an online diary study where participants were asked to fill in a general survey, followed by a daily survey for five consecutive working days. The surveys contained items on the different constructs provided in the conceptual model. Two constructs were included based on study 1 and the other items were chosen based on the literature on work engagement in the public sector. The data was analyzed using Multilevel Modeling (MLM). The results were used to examine: 1) the relations found in the Thematic Analysis; and 2) the role of red tape on the motivational process leading to work engagement. Therefore, study 2 was used to answer both sub-questions.

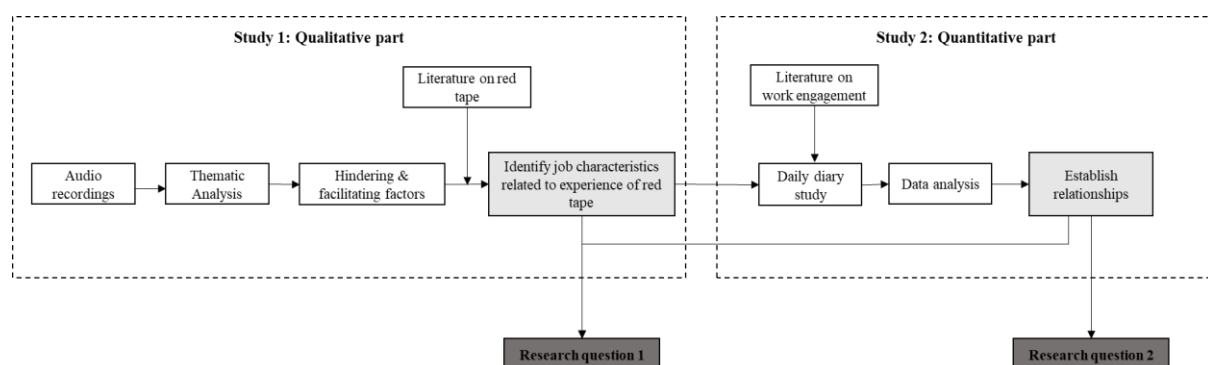


Figure 3.1: Visual Representation of Research Design

3.2. Participants

Study 1

The participants of the in-depth interviews from the audio recordings were sixteen detectives (n=16) from two different departments in the region of The Hague. Half of the interviewees were male, most were between the ages of 30 and 50, and were working for the Police for 10 to 25 years. Nine detectives were working in regional units and the others in district units. Furthermore, the interviewees held various functions in the organization such as financial specialist, digital specialist, coordinator, file maker, and detective assistant.

Study 2

Detectives from Dutch National Police were targeted by mail to participate in the diary study. Upon agreement, the participants completed the general questionnaire. The following workweek, participants received an email with a link to the daily questionnaire at the end of every workday. In total, 974 detectives were targeted, and 164 responses to the general questionnaire were received (response rate = 16.8%). However, a requirement was that a participant worked day shifts during the diary study and hence 111 detectives (n=111) participated in the study who in total filled out 163 daily questionnaires (n=163). From these, 34% (n=38) only filled in the general questionnaire, 20% (n=22) filled in the daily questionnaire once; 22% (n=24) twice, 14% (n=16) three times, and 10% (n=11) four or more times. Due to the low response rate, no criteria for the minimum number of filled-in questionnaires per participant was set and hence all responses were included in the study. Most participants were male (n=68), the average age was 48.02 years (SD=11.60), and the average organizational tenure of 24.21 years (SD=12.73).

3.3. Measures

Study 1

This part relied on audio recordings of in-depth interviews performed by an external researcher. The interview consisted of open questions about the interviewees' experiences with different aspects of work such as work tasks, colleagues, and leadership. The questions are presented in the interview protocol. This protocol was followed by the researcher to ensure consistency between the interviews. The interview protocol is presented in Appendix A.

Study 2

Study 2 used two online surveys created in Qualtrics. These surveys (i.e., general questionnaire and daily questionnaire) contained items on the participant's demographics and the variables presented in the conceptual model. Although it is desired to measure variables at the daily level, to limit the length of the daily questionnaire, three variables were included in the general questionnaire. Since the questionnaires were also used to collect data for another study, some items were irrelevant and hence only the measurement scales used in this study are presented. Table 3.1 shows which variables were included per questionnaire.

Table 3.1: Variables per questionnaire

General questionnaire	Daily questionnaire
Age	Task interdependence
Gender	Autonomy
Education	Work-related support
Function	Resilience
Organizational tenure	Work engagement
Contract hours	Task-level red tape
Task complexity	
Public service motivation	
General red tape	

General questionnaire

The demographics consisted of items on the participants' age, gender, education, function, organizational tenure, and contract hours. Age and organizational tenure are continuous variables, and the others are categorical variables. Furthermore, three variables were assumed not to fluctuate throughout the days and therefore included in the general questionnaire because a shorter daily questionnaire is desirable to ensure compliance with repeated measures. Task complexity was used to measure how detectives generally judge administrative tasks in terms of complexity and was expected not to fluctuate throughout the days. Furthermore, PSM was included because it does not appear to fluctuate unpredictably (Christensen et al., 2017). Finally, since this study focused on bureaucratic red tape, following the psychological process view, red tape is transmitted through organizational structure dimensions and task-level requirements (Pandey, 2021). However, most red tape measures focus on either one of these aspects and therefore this study included two measures of red tape (i.e., general red tape and task-level red tape). General red tape was measured in the general questionnaire because it reflects the compliance burden spread through organizational structure dimensions and thus provided a more general measure of red tape which was expected not to fluctuate daily. For task-level red tape, a job-centered approach was used, and the experience of red tape in detectives' operational administrative tasks was measured. Since detectives perform different tasks per day, task-level red tape was expected to fluctuate and therefore included in the daily questionnaire. The three scales used in the general questionnaire are presented below.

Task Complexity was measured using the 4-item scale developed by Maynard & Hake (1997) to measure participants' perceptions of task complexity. The items were rated on a 5-point Likert scale ranging from 0 (totally disagree) to 4 (totally agree) and were adjusted to make them appropriate for measuring the complexity of operational administrative tasks. An example item is "I find operational administrative tasks complex." The scale showed internal reliability of $\alpha = .681$ and many statisticians have suggested that alphas in the range of .65-.80 are acceptable (Vaske et al., 2017). Although this reliability just exceeds the threshold, the official scale has high reliability ($\alpha=.903$) and therefore all items were used to measure task complexity.

Public Service Motivation was measured using a 7-item validated Dutch PSM scale developed by Leisink & Steijn (2009). The items were rated on a 5-point Likert scale ranging from 0 (totally disagree) to 4 (totally agree). An example item is "Meaningful public service is very important to me." The scale showed initial internal reliability of $\alpha = .676$, which is similar to the official scale ($\alpha=.68$), and hence all items were included to measure PSM.

General Red Tape was measured using a six-item scale applied before within Dutch public sector research (Vermeeren & van Geest, 2012). The items were rated on a 5-point Likert scale ranging from 0 (totally disagree) to 4 (totally agree). An example item is “It takes me a long time to comply with all the rules and obligations within my organization.” The scale showed internal reliability of $\alpha = .883$.

Daily questionnaire

The daily questionnaire contained items on six variables that were expected to fluctuate throughout the days. The six scales are presented below.

Task Interdependence was measured using the 3-item scale for received interdependence from the Work Design Questionnaire (Morgeson & Humphrey, 2006). Two types of task interdependence (i.e., initiated and received) exist (Wong & van Gils, 2022), but this study only considered received task interdependence because this type reflects the dependencies on others which was relevant with respect to red tape. The items were rated on a 5-point Likert scale ranging from 0 (totally disagree) to 4 (totally agree). An example item is “Today, my work could not be done unless others did theirs.” The scale had an internal reliability of $\alpha = .871$.

Autonomy was measured using the 3-item scale for autonomy of Bakker et al. (2004). The items were rated on a 5-point Likert scale ranging from 0 (not applicable to me at all) to 4 (completely applicable to me). An example item is “Today, I could decide for myself how I performed my work.” The scale had an internal reliability of $\alpha = .806$.

Work-related Support was measured using an item adapted from Demerouti et al. (2001) where participants were asked to rate the item “the interaction with this contact was resourceful” on a 5-point Likert scale ranging from 0 (totally disagree) to 4 (totally agree). Beforehand, respondents were asked to keep in mind the five people they had the most contact with on that day. Throughout the questionnaire, they had to rate the item five times. Finally, work-related support was measured using the average of the five responses. Since this reflects an aggregate, internal reliability is not provided.

Resilience was measured using a 3-item daily resilience scale (Martinez-Corts et al., 2015) which was adapted from the resilience scale developed by Wagnild & Young (1993). The items were rated on a 7-point Likert scale ranging from 0 (totally disagree) to 6 (totally agree). An example item is “Today, I felt I could handle many things at a time”. The scale showed initial internal reliability of $\alpha = 0.532$ and does not exceed the threshold ($\alpha > .65$). This problem was solved by computing the correlation of each item with the total score test and deleting items with low correlation (i.e., approaching zero) (Tavakol & Dennick, 2011). Deleting the first item (“Today, I went through tough times because I’ve been through tough times before”) yielded a correlation of $\rho = .659$. This reflects the Spearman-Brown coefficient which is the most appropriate statistic for a two-item scale (Eisinga et al., 2013). Hence, two items were used to measure resilience.

Work Engagement was measured using the ultra-short 3-item version of the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2019). Each item represented one of the dimensions of work engagement: (1) “Today, I felt bursting with energy at my work” (vigor), (2) “Today, I was enthusiastic about my job” (dedication), (3) “Today, I was immersed in my work” (absorption). The items were rated on a 7-point Likert scale ranging from 0 (never) to 6 (always). The scale showed internal reliability of $\alpha = .845$.

Task-level Red Tape was measured using the Three-Item Red Tape (TIRT) Scale (Borry, 2016) which uses the following three components of red tape: burden, necessity, and effectiveness. Respondents were asked the following question “To what extent would you describe the operational administrative

tasks that you have encountered in your work today as burdensome, unnecessary, and ineffective.” The respondents had to rate the items ranging from not burdensome (0) to burdensome (4), necessary (0) to unnecessary (4), and effective (0) to ineffective (4). The scale showed internal reliability of $\alpha = .715$.

A complete overview of both questionnaires is presented in Appendix B.

3.4. Data Analysis

Study 1

The interviews were analyzed using Thematic Analysis (TA) which is a method for identifying and analyzing patterns of meaning in a dataset and the results should highlight the most important patterns found in the data (i.e., themes) (Joffe, 2012). In this study, the systematic approach described by Braun & Clarke (2006) for conducting a Reflexive Thematic Analysis (RTA) was followed (see also: Braun & Clarke, 2019). RTA is the most flexible approach to TA because it does not use pre-defined code books and allows codes to be adjusted throughout the analysis. Hence the approach was iterative and not bound by theory which provided the possibility to identify organization-specific job characteristics. The following six steps were performed for the RTA: 1) data familiarization; 2) systematic coding; 3) searching for themes; 4) reviewing themes; 5) defining and naming themes; 6) writing the report. In addition, these steps were combined with the three different types of coding (open, axial, and selective) described by Boeije (2014) because here more specific instructions on how to perform the coding were provided. The steps were performed in NVivo which is a software package created for performing qualitative data analysis.

Study 2

The collected data has a two-level structure, where repeated measures (i.e., level 1) were nested within persons (i.e., level 2) and hence a multilevel analysis was required to analyze the data. The data contained many missing values since merely one participant filled in the daily questionnaire five times. The data, therefore, represent unbalanced longitudinal data and multilevel modeling (MLM) provides the most adequate approach to analyze this type of data (Misangyi et al., 2006). The MLM was performed in IBM SPSS version 28 using the “Mixed Models” command and the strategy followed to test the hypotheses is presented below.

First, descriptive statistics and simple statistic tests (one-way ANOVAs) were used to provide an exploratory overview of the data and to decide which control variables to include. Thereafter, multilevel models were created following the approach of Heck et al. (2013) by first estimating null models followed by a step-by-step extension of the models. Model improvement was tested by computing the difference of the log-likelihood statistic $-2 \cdot \log$ and submitting this difference to a chi-squared (χ^2) test. Random-intercept models were used to distinguish between within- and between-person variance. Due to the small sample size, random slopes were avoided because these would make the models prone to error (Bell et al., 2010). The predictor and control variables reflect centered variables, where level 2 variables were grand-mean centered and level 1 variables person-mean centered as prescribed by Yaremych et al. (2021). In addition, aggregates of level 1 variables were included as level 2 predictors as proposed by Curran & Bauer (2011) to distinguish between within-person and between-person effects. These were also grand-mean centered. All models were estimated using Maximum Likelihood Estimates.

Finally, correctly interpreting the results of MLM requires testing the assumptions underlying multilevel models. These are linear relationships, homoscedasticity, and normal distribution of the residuals (Maas & Hox, 2004). The linearity assumption was checked by creating scatterplots between the independent and dependent variables, and homoscedasticity and normally distributed residuals were checked using residual plots of the predicted models (Tsybrovskyy & Berghold, 2003). The plots are

presented in Appendix C. The scatterplots between the independent and dependent variables show linear relations between all variables except public service motivation and work engagement. Furthermore, the standardized predicted variables were plotted against the standardized residuals and these plots show no pattern, hence homoscedasticity can be assumed. The QQ plot shows that the standardized residuals follow a normal distribution. In addition, the independent variables were tested on multicollinearity because this introduces bias to the estimates of the parameters and standard errors which makes the results misleading (Shieh & Fouladi, 2003). Multicollinearity was assessed by calculating the Variance Inflation Factor (VIF) where VIF values should lie between 1 and 5 (Kutner et al., 2005). All values were close to and above 1 suggesting no multicollinearity issues in the dataset (see: Appendix C).

4. Results and Discussion Study 1

4.1. Results

This section presents the results of the Reflexive Thematic Analysis (RTA) used to analyze the in-depth interviews held with the detectives. Following the approach of Braun & Clarke (2006), in total nine themes emerged throughout the analysis. Based on these themes, different factors of detective work were identified as hindering or facilitating detectives in performing their work. Thereafter, for the identified factors was described whether they involved red tape referring to previous literature. The codebook used for the analysis is presented on page 21 (see Table 4.1).

4.1.1. Themes

In total, nine themes emerged throughout the analysis. Five of these themes present how the interviewees experienced their work (i.e. Usefulness, Complexity, Time Consuming, Work Pressure, and Experience), whereas the other four themes reflect how the interviewees experienced certain aspects of the workplace environment (i.e. Management, Collaboration, Support, and Interdependence). The themes are described below. Furthermore, a table is included with a relevant quote for each code at the end of each theme.

Theme 1: Usefulness

Theme 1 described how detectives feel about their work in terms of usefulness. Generally, detectives considered all tasks they perform as useful. They mentioned that they have a clear understanding of the purpose and utility of tasks and believe that all tasks are beneficial for a case. Furthermore, the participants indicated that a large part of their work is administrative. Some participants even mentioned spending more than 75 percent of their time performing administrative actions. Yet, they admitted that they consider administration part of their work and therefore understand the usefulness of it. However, three aspects of work were experienced as useless by the detectives. For example, detectives indicated that doing the same registration in different systems is useless. The reason behind this is found in the systems' authorization and lack of synchronization between different systems. Police officers working in the streets do not have access to the system (SummIT) for the processing of criminal files and cases by detectives. Therefore, detectives also must register their police reports in the system (BVH) which can be used by police officers. The lack of synchronization between these systems caused that detectives are often registering things twice, which is experienced as useless. Another aspect indicated as useless by detectives is the "meeting culture" that prevails at the Police organization. No concrete examples were provided, but several detectives mentioned that they were irritated by the number of meetings and wondered what the point is of this. Finally, a third aspect indicated as useless was the policy to physically deliver documents to the Public Prosecution Service and other involved parties. This policy caused irritation because it generates a lot of copy work and involves manually stamping documents. The detectives wondered why these documents cannot be delivered digitally.

In short, detectives considered most of their tasks useful and admitted that administration is part of their work. However, three aspects of work created feelings of uselessness. These were doing registrations in systems multiple times, the prevailed "meeting culture" and the policy to physically deliver documents to involved parties.

Table 4.2: Quotes Theme 1

Code	Quote
Everything is useful	<i>Everything involving an investigation, even if I must prepare a hundred papers for that, serves a purpose, and thus contributes to my case.</i>
Administration is part of the job	<i>Administration is inherent to our work. You can think of creating a file or writing documents as administration, while I see it as part of my work. These are just the tasks I perform.</i>
Registrations in multiple systems	<i>Nowadays we work with two systems: BVH and SummIT. Not all colleagues are authorized for SummIT. This means that if we performed work for a case, we must register this both in BVH and SummIT.</i>
Meeting culture	<i>What I regret and what consumes a lot of energy are those endless meetings that are not necessary. Why do we need to have ten meetings a day all about the same topic?</i>
Physically delivering documents	<i>SummIT is intended to deliver a digital file. However, the Public Prosecution Service of The Hague is not there yet and thus neither are we. Therefore, we are still physically delivering files.</i>

Theme 2: Complexity

Theme 2 described how certain aspects of detective work were experienced as complex. First, the usage of certain registration systems caused that the detectives experienced difficulties in performing their work. They described the systems as unclear and complicated. The systems are not adjusted to the needs of policemen, since IT people developed them. Furthermore, the usage of different registration systems caused difficulties because every system works differently which complicated detectives in performing their tasks. Also, unresolved system failures created complications which sometimes even resulted in denied access. Second, the detectives mentioned several times that searching mobile devices and creating claims are complicated tasks. For searching devices, they indicated that they do not have the expertise to retrieve the right information from these devices and they wondered why this task is not executed by a digital specialist instead. Currently, a digital specialist transfers the information from the device into the system and a detective uses the system. However, the detectives admitted that they are not always good at this task and prefer to just manually search a device. Furthermore, the participants indicated that it feels like a waste of expertise that digital experts are not used for this task. As for creating claims, the detectives mentioned that colleagues were having trouble with creating claims because of the complicated application forms. Finally, the participants indicated that following illogical procedures complicated their work. The detectives said that the Police organization tends to stick with procedures that were once created which made it difficult to change current practices.

In short, detectives indicated that the usage of registration systems, searching devices and creating claims, and following illogical procedures were considered complex aspects of detective work.

Table 4.3: Quotes Theme 2

Code	Quote
Complicated systems	<i>One department enters it in the system, but the system is so unclear that you spend a lot of time searching for the information.</i>
Complicated tasks	<i>You can give me a mobile phone and I can see where WhatsApp is. However, you can retrieve so much more information from a device, but I do not know how. It is a shame that this is not done by a specialist.</i>
Illogical procedures	<i>I have trouble with lists of rules where we need to stick to while sometimes it is just different. It is difficult to put our work black and white on paper. There are so many grey areas.</i>

Table 4.1: Codebook Reflexive Thematic Analysis

Theme	Sub-Theme	Code	Frequency
Usefulness		Everything is useful	9
		Administration is part of the job	7
		Registrations in multiple systems	6
		Meeting culture	4
		Physically delivering documents	4
Complexity		Complicated systems	6
		Complicated tasks	4
		Illogical procedures	3
Time Consuming		Time consuming tasks	15
		System functionality	8
		Administrative activities	7
		Not following procedures	3
Work Pressure		Staff shortage	10
		High work pressure	9
		Reasonable work pressure	6
		Low work pressure	3
		Achieving targets	4
Experience		Experience with Police organization	10
Management	Coordination and monitoring	Better monitoring and coordination needed	5
		Monitoring and coordinating role	4
	Involvement	Management is approachable	8
		Involving employees	3
		Involvement of management	3
	Communication	Better communication needed	6
		Feedback	4
Collaboration	Internal collaboration	Colleagues	11
	External collaboration	Public Prosecution Service	5
		Citizens	4
		Aid organizations	4
Support	Collegial support	Informational support	15
		Emotional support	5
	Supervisor support	Support from supervisor	15
		Organizational support	Educational support
			Psychological support
	Interdependence	Received interdependence	Dependent on Public Prosecutor Service
Dependent on colleagues			6
Dependent on coordinator			5
Dependent on external parties			3
Provision of information			12
Initiated interdependence		Not depending on others to perform work	6
		Independence in the workplace	

Theme 3: Time Consuming

Theme 3 described how certain aspects of detective work were experienced as time consuming. First, nearly all participants named either one or more tasks time consuming. The most frequently mentioned task was requesting claims. The detectives mentioned that the process of requesting claims is not fully standardized which caused that in some cases multiple adjustments are made, and in addition, it involved a lot of waiting for approval. Requesting claims was followed by searching devices. This was considered time consuming because of the large amount of data stored on a mobile phone. Wiretapping was also mentioned as a time-consuming task because it consumed a lot of time when suspects were making many long calls. Finally, writing police reports was mentioned time consuming because of the many details and accountability involved around it. Second, another topic that occurred as time consuming concerned system functionality. According to the participants, some systems were not convenient to use, and thus a lot of time is wasted on searching for and uploading information in the systems. The problem was found in the synchronization between the different systems. This caused that often information was registered twice, and it was difficult to find the work previously performed by colleagues. Also, the systems' authorization slowed down progress because in case of denied access, the information had to be requested, and waiting for this usually involved a lot of time. Third, the detectives mentioned that the administrative actions necessary for accountability can be very time consuming. They explained that everything must be justified which generates a lot of paperwork. Finally, it was mentioned that requesting information from third parties was found time consuming. This aspect, in some cases, even drove detectives to not follow the prescribed procedures such that information was obtained faster.

In short, four tasks were experienced as time consuming by the detectives (requesting claims, searching devices, wiretapping, and writing police reports). Furthermore, the system functionality, administrative actions necessary for accountability, and requesting information from third parties were aspects that were considered time consuming by detectives.

Table 4.4: Quotes Theme 3

Code	Quote
Time consuming tasks	<i>I think that creating claims consumes most time because it is difficult to say, it depends on the prosecutor you have because there are standard points that must be included; however one prosecutor demands other information than the other. So therefore this costs a lot of time because you must make several adjustments.</i>
System functionality	<i>The difference between systems takes a lot of time. This must be in SummIT, but also in BVH and it should also be in SCRUM.</i>
Administrative activities	<i>Well, jokingly said every poo or fart must be justified on paper. So we spend so much time doing administration of which I think it could be easier.</i>
Not following procedures	<i>So now I have experienced that I had to wait up to four or five months and still had not received information. Finally I call them myself, which is not allowed according to the standard protocol.</i>

Theme 4: Work Pressure

Theme 4 described the level of work pressure detectives experienced and the factors that contributed to this experience. The level of work pressure varied per participant, although most indications of a high work pressure appeared throughout the interviews. High work pressure was illustrated as the result of high demands set by supervisors and the Public Prosecution Service, unrealistic time schedules, high demands of the detective himself, and staff shortages. Especially the latter was often mentioned. Detectives indicated that they had to work hard because of staff shortages. In particular, it emerged that coordinators experienced very high work pressure because of the staff shortages. These shortages caused that lately coordinators were deployed to perform basic tasks. Since they also bear responsibility

for checking the work of detectives, their workload increased. Besides the staff shortages, the “quantity before quality” culture that prevailed also contributed to high work pressure. Several detectives felt that management prioritized achieving targets above delivering quality. In contrast to a high work pressure, some detectives indicated experiencing a reasonable work pressure whereas some even indicated craving for a higher work pressure.

In short, the level of work pressure experienced varied per detective. Reasons for high work pressure were high demands set by superiors, unrealistic time schedules, high demands of detectives themselves, and staff shortages.

Table 4.5: Quotes Theme 4

Code	Quote
Staff shortage	<i>So that is how it actually should be, but due to a staff shortage my supervisor is also involved in investigations and know a lot about the case and sometimes performs investigative tasks such as writing police reports.</i>
High work pressure	<i>I experienced when I worked for the signal team that I received unrealistic requests from the Public Prosecution Service. I noticed that this resulted in an increased workload and dissatisfaction.</i>
Reasonable work pressure	<i>There are expectations, but at the same time I experience a lot of freedom in the work I perform.</i>
Low work pressure	<i>Some people could use a kick in the ass and work a little harder. A lot of time is wasted on chatting and drinking coffee.</i>
Achieving targets	<i>An agreement has been made with the government and the Public Prosecution Service that we deliver a certain amount of suspects every year and that target must be met.</i>

Theme 5: Experience

Theme 5 described the importance of experience within other departments of the Police organization. Multiple participants claimed their experience at the organization advantageous to do their job. For example, detectives that worked as police officers before understood the importance of registering every little detail in the system. Before, they had found this unnecessary and time consuming, however, now they understand that every little detail can be important information for a case. Furthermore, a detective that worked for the Palace of Justice claimed this experience beneficial for writing police reports because of understanding the state of affairs in court. Also, detectives indicated that their experience with the Police organization caused them to care less about the hierarchical structures, need little guidance and help in performing their tasks, and indicate earlier when they had run into something.

Table 4.6: Quote Theme 5

Code	Quote
Experience with Police organization	<i>No, since I worked on the streets for a long time, and it is only troublesome if things are not mutated properly because in that case you do not possess the necessary information to work with.</i>

Theme 6: Management

Theme 6 described detectives’ attitudes towards management, specifically the managers in their departments. Three sub-themes were identified. First, the detectives described the role of their managers as monitoring progress and coordinating tasks, while a senior detective (coordinator) holds responsibility for the content. However, they indicated that there is room for improvement. According to the participants, managers should pay more attention to monitoring stress and intervene more quickly when detectives are taking longer to finish a task. Especially for new colleagues, there should be more

coordination. However, it was also mentioned that some managers tend to micromanage and instead should give more freedom to the detectives. The second sub-theme described the involvement of management. The participants indicated that management is approachable, yet detectives found that management can be more involved with their employees and involve employees better in decision-making. The detectives mentioned that it is easy to approach management for answering questions and discussing problems. However, detectives indicated that they lacked the involvement of their manager and that management should listen better to signs from the workplace and thus involve employees more. The final sub-theme described the communication of management. Some detectives expressed that they were annoyed by the communication skills of their managers. They indicated that there is little communication about what is happening behind the scenes which irritated them. Instead, receiving updates would give off the signal that progress is being made. Furthermore, some participants mentioned that they desire more feedback from their manager on the performance of their tasks.

In short, detectives described the role of management as monitoring progress and coordinating tasks. They found management approachable, yet some aspects need improvement. According to the detectives, management should be more involved with their employees and involve them more in decision making. Also, the communication skills of management could be improved.

Table 4.7: Quotes Theme 6

Code	Quote
Better monitoring and coordination needed	<i>Why does it take so long? Where can we help you with? How can we improve this? These things do not happen, which is due to the manager. More attention must be given to the qualities of people such as who can I use for this or who needs help with that.</i>
Monitoring and coordinating role	<i>My supervisor is not very concerned with the investigations. He is up to date, however he must be informed by me.</i>
Management is approachable	<i>Well my supervisor is approachable. There is no high threshold to speak together or ask questions, so that is a good thing."</i>
Involving employees	<i>Well, listen. Listen to your people. I know you cannot please everyone, but just listen and do not ignore signals from the workplace.</i>
Involvement of management	<i>Management is not involved with the people here because they do not signal anything since they are always in their office.</i>
Better communication needed	<i>What stresses me out is the communication, miscommunication, or no communication at all with management</i>
Feedback	<i>Well, sometimes I miss feedback on my functioning. Not that I need a compliment every day, but I hear this from colleagues as well.</i>

Theme 7: Collaboration

Theme 7 described with whom detectives collaborated and how they experienced this collaboration. A differentiation was made between internal and external collaboration, which also reflects the two sub-themes. First, detectives internally collaborated mostly with colleagues. Generally, detectives had positive experiences regarding this collaboration. Detectives who were positive about the collaboration spoke among other things about getting energized while working together with positive colleagues and working together for the same goal. They also appreciated the honesty and directness of their colleagues. However, some detectives mentioned negative aspects of internal collaboration. They claimed that the negative attitude of certain colleagues and the tendency to constantly assign cause to others (sheer culture) cost them a lot of energy. Furthermore, working from home had a negative influence on collaboration because there was less awareness of others' activities. Second, detectives collaborated externally most often with the Public Prosecution Office, citizens, and aid organizations. Collaboration with the Public Prosecution Office was difficult when the prosecutor had a different goal in mind, and this is experienced as demotivating. In the past, detectives were not allowed to have contact with the

prosecutor, but since the introduction of the SCRUM¹ method there have been monthly consultation sessions that improved the collaboration between detectives and the Public Prosecution Office. Furthermore, the collaboration with citizens (i.e., victims, witnesses, and suspects) was mentioned several times. Although the detectives indicated that helping victims gave energy, some mentioned that collaboration with citizens can be hard. Conducting interrogations with victims was experienced as emotionally demanding while interrogating suspects who appeal to their right to remain silent consumed a lot of energy. Also, the negative attitude of citizens towards the Police made it difficult to obtain information from witnesses which complicated progress. Finally, collaboration with aid organizations was mentioned, which usually implied aid organizations requesting information about victims. Generally, detectives experienced this collaboration as positive. However, as detectives are often dealing with sensitive information about victims, they cannot always provide the information to the aid organizations which sometimes created tension.

In short, collaboration with colleagues was often experienced positively, although two negative aspects emerged: the negative attitude of coworkers and the “sheer” culture. On the other hand, the external collaboration held a few flaws. The Public Prosecutor sometimes had a different goal in mind which worked demotivating. Furthermore, collaboration with citizens was experienced as emotionally heavy and energy-consuming. Finally, the collaboration with aid organizations caused tension in dealing with sensitive information.

Table 4.8: Quotes Theme 7

Code	Quote
Colleagues	<i>Well, as detective assistants we are having a nice collaboration. We are helping each other which is very nice and, yes, very positive.</i>
Public Prosecution Service	<i>In terms of chain partners like the Public Prosecution Service. So when you have a certain goal in mind and, for example, an officer tries to inhibit you because he does not find it as important. That is demotivating.</i>
Citizens	<i>Non cooperating witnesses I find very annoying. People on the street who avoid you because you are from the Police. That is just really annoying.</i>
Aid organizations	<i>There is a tension. You would like to help the aid organizations, however, on the basis of the WPG you cannot always provide them the information.</i>

Theme 8: Support

Theme 8 described the types of support detectives received in their work. A distinction is made between collegial support, supervisor support, and organizational support, which reflected the three sub-themes. First, most detectives indicated receiving informational support from their colleagues. Often this included asking a colleague for help with a difficult task or with questions. However, some detectives also mentioned receiving emotional support. According to them, their coworkers were supportive when they were going through difficult times. Second, almost all detectives indicated receiving support in their work from supervisors which was mainly informational in nature. This support consisted of assistance with difficult tasks, content-related questions, and work-related problems. Furthermore, supervisors were supportive in dealing with difficult external parties and solving problems with coworkers. The detectives also stated to go to their supervisor for brainstorming and coaching. Finally, some detectives mentioned the possibility of educational and psychological support from the organization. Educational support was provided to detectives who want to develop or improve their

¹ SCRUM refers to a project management method. This method utilizes short cycles (sprints) in which the team members work on short-term goals. Impediments to progress are discussed in regular Scrum meetings such that early actions can be taken in to finish a project successfully (Koskela & Howell, 2002).

skills. Furthermore, it was mentioned that recently all detectives have the opportunity to speak with a psychologist once in a while.

In short, most detectives received both informational and emotional support from their colleagues. Furthermore, informational support was also provided by their supervisors. Finally, the detectives also indicated receiving educational and psychological support from the organization.

Table 4.9: Quotes Theme 8

Code	Quote
Informational support	<i>Often by sparring with a colleague such as I run into this, or this bothers me, or this is not going well. And then I may ask a colleague for help.</i>
Emotional support	<i>Well you are building relationships with colleagues just because we experience so many crazy things.</i>
	...
Support from supervisor	<i>But we often talk to each other about crazy things or your feelings about something.</i>
	<i>If someone really does not want to do anything and thinks it is all good, then I will ask my supervisor for advice and help on how to deal with this.</i>
Educational support	<i>I am not great at planning which led to me receiving a two-day course from my former manager to bring more structure in my working day.</i>
Psychological support	<i>For example, once a while we receive a visit of a psychologist which I believe is not a bad thing because we encounter abnormal situations. For us, these situations have become normal now, however they are not.</i>

Theme 9: Interdependence

Theme 9 described how detectives experienced dependency in the workplace. A differentiation was made between initiated dependency, received dependency, and independency. These reflected the three sub-themes. First, most detectives indicated that they were depending on others for performing certain tasks. The public prosecutor was often named by the participants. They mentioned that the decision authority regarding an investigation is with the prosecutor and thus when the prosecutor wants something the detectives have to obey. Furthermore, the detectives were dependent on the approval of claims by the prosecutor before they were allowed to use their special investigation powers. Other people mentioned by the detectives were colleagues, coordinators, and external parties. The detectives were often dependent on their coworkers to receive information about a case. Furthermore, they indicated that their coordinator must check and approve their work which makes them dependent on their coordinators. In addition, they sometimes needed approval before they could call certain people. The detectives were dependent on external parties mainly to receive information. However, it was mentioned several times that contact outside office hours complicated this process. Second, most detectives mentioned that others were dependent on them for information provision. The detectives indicated that they often received questions from basic teams about cases. However, they also received questions from other detectives. For example, specialists received requests from detectives about financial or digital affairs. Finally, some detectives indicated that they are not dependent on others in their work. However, this was only claimed by detectives from the financial department and file makers.

In short, most detectives indicated being dependent on the Public Prosecutor, colleagues, coordinators, and external parties in performing their tasks. Furthermore, they mentioned that others were dependent on them mostly for information. Finally, some detectives experienced full independency in the workplace.

Table 4.10: Quotes Theme 9

Code	Quote
Dependent on public prosecutor	<i>For many investigations we need permission from the Public Prosecutor.</i>
Dependent on colleagues	<i>I think everyone is dependent on each other in some way because everyone has a separate task within the investigation and often it coincides.</i>
Dependent on coordinator	<i>My senior checks the work which is an important aspect because every official report I draw up is checked by a senior.</i>
Dependent on external parties	<i>They do not work on weekends, and they only work until five o'clock. These are often the things that require more time than you would have liked.</i>
Provision of information	<i>Especially in the field of digital people come to me asking for information</i>
Not depending on others to perform work	<i>In principle we stand apart from the team.</i>

4.1.2. Hindering and facilitating factors of detective work

Based on the identified themes, certain aspects of work are said to either hinder or facilitate detectives in performing their work. These aspects are presented in the form of hindering and facilitating factors, which are summarized in Table 4.11. The table includes the hindering and/or facilitating factors found per theme along with a brief description its content. In total 35 hindering factors were identified within seven themes and 9 facilitating factors were identified within four themes.

Table 4.11: Factors Per Theme

Factor	H/F	Content
<i>1. Usefulness</i>		
Systems' authorization and synchronization	H	Authorization and synchronization caused that registrations were performed twice
Meeting culture	H	The number of meetings caused irritations among the detectives
Policy to physically deliver documents	H	The policy generated additional work for detectives (copying and stamping documents)
<i>2. Complexity</i>		
System usage	H	Unclear and complicated systems caused for difficulties in performing detective work
Digital expertise	H	Lack of digital expertise made searching devices a complicated task
Complicated application forms	H	Complicated application forms made creating claims a complicated task
Illogical procedures	H	Police organization tends to stick with old procedures which hampered improving current practices
<i>3. Time Consuming</i>		
Standardization of creating claims	H	Not fully standardized yet and thus often adjustments were made
Waiting for claim approval	H	Claim must be approved by prosecutor and often involved long waiting times
Large amount of data on phone	H	Large data amounts made searching devices a time-consuming task
Wiretapping	H	Time consuming task
Details and accountability for writing police report	H	The many details and accountability made writing police reports a time-consuming task
Systems' authorization and synchronization	H	Systems were not convenient to use and thus time was wasted on searching for and uploading information in the system
Administrative actions necessary for accountability	H	Everything must be justified which generated lots of paperwork
Requesting information from third parties	H	Time consuming when following protocol
<i>4. Work Pressure</i>		
Staff shortages	H	The shortages contributed to a high work pressure
Quantity before quality culture	H	Management prioritized achieving targets above delivering good quality which contributed to a high work pressure
High demands of supervisor and Public Prosecution Service	H	High demands contributed to a high work pressure
Unrealistic time schedules	H	Unrealistic time schedules contributed to a high work pressure
<i>5. Experience</i>		
Experience as police officer	F	This experience made detectives understand the importance of registering every little detail in systems
Experience at Palace of Justice	F	This experience was beneficial for writing police reports
Experience in the organization	F	This experience caused that detectives cared less about hierarchical structures, needed less guidance, and indicated earlier when they had run into something
<i>6. Management</i>		
Management involvement	H	Not enough attention was paid by management to monitor stress and intervene when necessary
Employee involvement	H	Employees wanted to be more involved in decision making
Communication of management	H	Little communication about why certain things are done
Feedback	H	Little feedback is provided by managers
Approachability of management	F	Management was easy to approach for answering questions and discussing problems

Table 4.11: Continued

<i>7. Collaboration</i>		
"Sheer" culture	H	The culture to constantly assign cause on others consumed energy
Negative attitude of coworkers	H	Negative attitudes of others consumed energy
Working from home	H	Little awareness of others' activities which negatively influenced internal collaboration
Collaboration with Public Prosecution Office	H	When prosecutor had different goal in mind, collaboration was difficult sometimes
Interrogations with citizens	H	Interrogations with victims can be emotionally heavy and with suspects energy consuming
Negative attitude of citizens towards police	H	This negative attitude made it sometimes difficult to obtain information from citizens
Dealing with sensitive information	H	Dealing with sensitive information sometimes caused for tension with aid organizations
Positive attitude of coworkers	F	Positive attitude of coworkers worked energizing
SCRUM	F	The introduction of the SCRUM method improved the collaboration between detectives and the Public Prosecution Office
<i>8. Support</i>		
Collegial support	F	Help with difficult tasks and questions (i.e. informational support) and emotional support
Supervisor support	F	Assistance with difficult tasks, content-related questions, and work-related problems
Organizational support	F	Possibility to develop or improve skills (educational support) and conversations with psychologist (psychological support)
<i>9. Interdependence</i>		
Decision authority of prosecutor	H	Detectives were dependent on prosecutor because the decision authority in an investigation is with the prosecutor
Claim approval by prosecutor	H	Approval by the prosecutor was needed before detectives were allowed to use their special investigation powers
Information provision by others	H	Detectives were dependent on colleagues and external parties to receive information
Approval of coordinator	H	Coordinators had to check and approve the work of detectives before it can be submitted
Contact outside office hours	H	External parties do not operate all day and thus contact outside office hours was difficult sometimes

Note. H=hindering factor, F=facilitating factor

4.1.3. Red Tape

The identified hindering and facilitating factors were examined on whether they involved red tape using prior literature. In this thesis, red tape is defined as the role-specific subjective experience of compliance burden imposed by an organization (Pandey, 2021). Since the definition of red tape is based on the term compliance burden, only the hindering factors were considered to contain red tape. Seventeen factors were found to involve red tape. These factors contained red tape in the form of five different types of red tape. These include information systems red tape, communication red tape, burdensome administrative rules and procedures, procedural constraints, and task delays. Below, the different types of red tape are explained and the factors that belong to each type are identified. A summary of the results is provided in Table 4.12.

1. Information Systems Red Tape

Pandey et al. (2007) consider five dimensions of bureaucratic red tape and two dimensions resemble hindrances found in the present study, namely information systems red tape and communication red tape (see also: Coursey & Pandey, 2007). Information systems red tape can impede timely information exchange and thus an ineffective information system fails to provide managers with the necessary information for decision-making. Although the present study did not concern managers, there were several signs of ineffective information systems. This problem was mainly found in the systems' authorization and synchronization which caused registrations to be performed twice and were inconvenient to use, but also in the systems' interface as some systems were described as unclear and complicated. These made system usage time consuming which indicates the presence of red tape in the organization's information systems. These factors also provide examples of dysfunctional standardization, which Dudau et al. (2020) refer to with red tape. The article states that system standardization should be designed to automate processes, support decision making and promote fair treatment. Following this, the process of creating claims contained red tape since it is not fully standardized yet and often adjustments had to be made.

2. Communication Red Tape

Communication red tape concerns ineffective communication across management systems which complicates the transfer of information (S. Pandey et al., 2007). In this study, detectives complained about the high number of meetings (i.e., meeting culture) and the communication of management. Most meetings were experienced as useless and management communicated little about why certain things were done and provided little performance feedback. These factors reflect a complicated transfer of information and thus suggest the presence of communication red tape.

3. Burdensome Administrative Rules and Procedures

Red tape is often linked to administration. For example, Rainey et al. (1995) define red tape as "burdensome administrative rules and procedures that have negative effects on the organization's effectiveness" (p. 574). In the present study, several factors involved burdensome administration. The policy to physically deliver documents represents a rule which includes a lot of administrative work which irritated the detectives. This also reflects what Keyworth (2006) describes as red tape caused by regulatory obligations to provide information to the government or third parties. Furthermore, the task of "creating claims" contained a burdensome administrative procedure because of the complicated application forms. Also, the administrative actions necessary for accountability and in particular the details and accountability for writing police reports contained red tape in the form of burdensome administrative rules and procedures. Efforts in the form of rules and procedures to ensure institutional and political accountability have been identified as a source of red tape in public organizations (Feeney & Rainey, 2010).

4. Procedural Constraint

The previous highlights red tape in administrative practices, but red tape can also be viewed as organizational rules and management practices that constrain employees in performing their job, which is referred to as procedural constraints (Giauque et al., 2012, 2013). In the present study, it was found that the Police organization tends to stick with old procedures which hampered improving current practices. These illogical procedures pose constraints for the detectives and therefore can be viewed as a form of red tape. Also, the protocol to request information from third parties constrained the detectives and even drove them to not follow the protocol. Rule-breaking behavior has recently been found to influence perceptions of red tape (Davis & Pink-Harper, 2016; Potipiroon, 2022) and thus requesting information from third parties is likely a source of red tape.

5. Task Delays

Some researchers take a more concrete approach to red tape and measure red tape as the amount of time taken for approval for various organizational activities (Bozeman et al., 1992). This approach focuses on the time and delay dimensions of red tape which emphasizes task delays as a source of red tape. In the present study, multiple times task delays were mentioned as a result of waiting for approval and thus likely form a source of red tape. These delays occurred as a result of claim approval by the public prosecutor and the approval of work by coordinators before it can be submitted. These delays can also be contributed to centralization and hierarchy, which have been identified as organizational structure dimensions related to red tape. Kaufmann et al. (2019) have shown that higher levels of centralization and hierarchy are associated with more red tape (Walker & Brewer, 2008). In this case, the required approval by coordinators and the public prosecutor indicates centralization of activities, and the decision authority of the public prosecutor regarding investigation suggest the influence of the hierarchical structure that the detectives operate in. Therefore, waiting for claim approval, the required approval of the prosecutor and coordinator, and the decision authority of the prosecutor are likely sources of red tape.

Altogether, the hindering factors contained red tape in the form of five different types of red tape. As can be seen in Table 4.12 the factors in themes 1, 2, 3, and 9 often involved red tape, whereas themes 6 and 7 both only had one factor. In addition, no factors that involved red tape were found in themes 4, 5, and 8.

Table 4.12: Factors Involving Red Tape

Factor	Type of Red Tape
<i>Theme 1: Usefulness</i>	
Systems' authorization and synchronization	Information systems red tape / dysfunctional standardization
Meeting culture	Communication red tape
Policy to physically deliver documents	Burdensome administrative rules or procedures as a result of regulatory obligations
<i>Theme 2: Complexity</i>	
System usage	Information systems red tape Dysfunctional standardization
Complicated application forms	Burdensome administrative rules or procedures
Illogical procedures	Procedural constraints
<i>Theme 3: Time Consuming</i>	
Standardization of creating claims	Information systems red tape / dysfunctional standardization
Waiting for claim approval	Task delays as a result of centralization and hierarchy
Details and accountability for writing police report	Burdensome administrative rules or procedures as a result of institutional and political accountability
Systems' authorization and synchronization	Information systems red tape / dysfunctional standardization
Administrative actions necessary for accountability	Burdensome administrative rules or procedures as a result of institutional and political accountability
Requesting information from third parties	Procedural constraints
<i>Theme 4: Work Pressure</i>	
<i>Theme 5: Experience</i>	
<i>Theme 6: Management</i>	
Communication of management	Communication red tape
<i>Theme 7: Collaboration</i>	
Dealing with sensitive information	Burdensome administrative rules or procedures as a result of regulatory obligations
<i>Theme 8: Support</i>	
<i>Theme 9: Interdependence</i>	
Decision authority of prosecutor	Task delays as a result of centralization and hierarchy
Claim approval by prosecutor	Task delays as a result of centralization and hierarchy
Approval of coordinator	Task delays as a result of centralization and hierarchy

4.2. Discussion

Study 1 aimed to identify interesting job characteristics related to the experience of red tape among Dutch detectives. This was done by exploring the work context of Dutch detectives using a Reflexive Thematic Analysis (RFA). The RFA yielded an extensive list of hindering and facilitating factors and for these factors was described whether they involved red tape. These findings provide an answer to sub-question 1: “*Which job characteristics of detective work are related to the experience of red tape?*”. Study 1 found that red tape often occurred in aspects of work experienced as either useless, complex, or time consuming and with tasks where detectives were dependent on others. However, to express this in terms of job characteristics the JD-R model is used. The hindering and facilitating factors are interpreted as job characteristics. The hindering factors are illustrated as job demands (i.e., the presence of illegitimate tasks, increasing task complexity, high workload, high work pressure, and emotional demands) or a lack of job resources (i.e., organizational support, external collaboration, independence at work) and the facilitating factors are illustrated as job resources (i.e., positive team climate, coworker support, supervisor support, work culture support). Therefore, in terms of job characteristics, the experience of red tape relates to the presence of illegitimate tasks, an increasing task complexity, a high workload, and a lack of independence at work.

In this section, first the factors that hinder or facilitate detectives in their work are interpreted using the JD-R model. Then, the specific job characteristics which relate to the experience of red tape are discussed, and it is decided which of these characteristics are included in study 1. The section ends by highlighting the study’s limitations.

4.2.1. Job Demands-Resource Model

The JD-R model (Bakker & Demerouti, 2017) is used to interpret the hindering and facilitating factors that were described in the results section. Hindering factors are illustrated as job demands or a lack of job resources and facilitating factors as job resources. Most factors represent job demands or resources often studied in JD-R research (for an overview, see Schaufeli & Taris, 2014).

Job demands

Several factors found in this study reflect job demands causing strain and exhausting employees. The presence of illegitimate tasks, an increasing task complexity, a high workload and work pressure and emotional demands are used to demonstrate how detectives were hindered in their work.

First, illegitimate tasks refer to tasks perceived as either unnecessary or unreasonable, where unnecessary tasks are illegitimate for everyone and unreasonable tasks are tasks that are not part of the role of specific employees (Semmer et al., 2019). Illegitimate tasks are considered a job stressor that is said to predict employee well-being over and above more traditional demands (Semmer et al., 2019). Strong evidence has been provided for the positive relationship between illegitimate tasks and strain (Fila & Eatough, 2020; Pindek et al., 2019). In the present study, the factors found in theme 1 indicate the presence of illegitimate tasks since these factors described aspects of detective work that were experienced as useless. The systems’ authorization and synchronization and the meeting culture are likely accompanied by perceptions of unnecessary tasks, whereas the policy to physically deliver documents is likely associated with unreasonable tasks. Since illegitimate tasks induce strain, their presence forms a hindering factor for detective work which highlights the importance to deal with these.

Second, task complexity is an aspect of job complexity (Nahrgang et al., 2011), which is an often-studied job demand (Schaufeli & Taris, 2014). Studies focusing on task complexity have found positive relationships with emotional exhaustion (Reineke, 2020) and performance (Debusscher et al., 2017). However, the strength of these relations depends on the level of (personal) resources which shows that

task complexity acts as a challenging demand. In the present study, the factors found in theme 2 reflect an increase in task complexity accompanied by a lack of resources which explains their hindering character. Difficulties experienced with system usage are likely a result of an increasing task complexity due to digitization. This is in line with Reineke (2020) who has shown that digitization trends pose additional digital challenges to employees in the form of increasing task complexity. Furthermore, the lack of digital expertise indicates a lack of resources among the detectives and the difficulties encountered with filling in application forms could also be attributed to a lack of expertise. Since the increasing task complexity is accompanied by a lack of (digital) expertise, which causes exhaustion and hinders performance, task complexity hinders the detectives.

Third, indications for a high workload and work pressure were found. A high workload causes strain, particularly when resources are low (Bakker & Demerouti, 2007). In the present study, digitalization both in police work (i.e., system usage) and society (i.e., smartphones) and the accompanied accountability of police work made certain tasks more time consuming. This can be thought of as an increased workload, which explains the hindering character of the factors found in theme 3. Furthermore, the factors found in theme 4 indicated a high work pressure for the detectives. Work pressure is a well-known job demand (Schaufeli & Taris, 2014) and established as an antecedent of the burnout component exhaustion (Bakker et al., 2004). The staff shortages at the police presumably contribute to the experienced work pressure since research has shown that a lack of staff and equipment is a predictor of exhaustion (Rothmann & Joubert, 2007). Furthermore, the “quantity before quality” culture together with highly demanding superiors placed additional demands on the detectives, which caused that detectives had to work harder. In addition, unrealistic time schedules could serve as a source of time pressure, which can result in higher work pressure (Laurijssen & Glorieux, 2013).

Finally, the emotionally demanding interactions found in theme 7 indicate the presence of emotional demands, which is a typical job demand studied in JD-R research (Schaufeli & Taris, 2014). The demanding interactions occurred both internally (i.e., negative attitude of coworkers) and externally (i.e., negative attitude of citizens towards the police and interrogations). Although emotional demands can act as a hindrance or challenge demand depending on organizational context (Bakker & Sanz-Vergel, 2013), the signs of emotionally demanding interactions found in this study were solely hindering the detectives. This agrees with the results of a longitudinal study among Australian frontline police officers where a reciprocal relationship was found between emotional demands and exhaustion (Hall et al., 2010). This study also argued that emotional demands are one of the main job demands for police officers.

Job Resources

The other factors found in this study can be thought of in terms of social support, collaboration, and independence. These resources are used to demonstrate how its’ presence facilitated detectives, whereas its absence or lack of hindered detectives. In addition, the role of organizational tenure is explained.

Social support is argued to foster work engagement and buffer the negative effects of job demands (Bakker & Demerouti, 2008). Following Biggs et al. (2014), three supportive job resources are distinguished (i.e. supervisor support, coworker support, work culture support). Coworker support reflects the perceived support from colleagues, whereas supervisor support reflects an employee’s perception of a supervisor being acknowledging, contributory, and appreciating (Ahmed et al., 2016). Work culture support (or organizational support (Rothmann & Joubert, 2007)) encompasses a wider job resource and reflects an employee’s perception that the organization’s work culture is concerned with their well-being, is committed to continuous improvement, and facilitates a supportive work environment (Biggs et al., 2014). In theme 8 was found that detectives received help from both their

colleagues and supervisors with difficult tasks and work-related problems and that detectives received emotional support from their colleagues when going through difficult times. This indicates the presence of coworker and supervisor support in dealing with (emotional) job demands and thus facilitated the detectives in their work. On the contrary, the factors found in theme 6 suggest a lack of organizational support provided by higher management. These factors described a lack of management involvement and communication, which are signs of little organizational support. Rothmann & Joubert (2007) show that insufficient organizational support is a predictor of burnout, where organizational support consisted of management support, participative decision-making, communication, performance feedback, work autonomy, and role clarity. The first four components resemble the factors of theme 6 and thus indicate a lack of work culture support provided by management. However, organization-wide, possibilities were offered to develop or improve skills and to speak with a psychologist which could strengthen the experience of work culture support. In a longitudinal study among Australian police officers, it was found that work culture support predicted higher supervisor support, coworker support, and work engagement over time and that the relationship with work engagement was reciprocal (Biggs et al., 2014). This highlights the importance of work culture support in a Police Force setting and demonstrates the facilitating role of work culture support and in turn coworker and supervisor support in the present study.

Theme 7 described the positive and negative aspects of collaboration, which can be best understood by viewing collaboration as a resource. Kaister et al. (2020) have studied collaboration as a resource making a distinction between team climate and collaboration. In this context, team climate refers to how the employees rate the collaboration within their team and collaboration refers to how employees assess collaboration with professionals from other services. In the present study, the external collaboration held the most flaws and in particular the collaboration with the Public Prosecution Office. Since collaboration is positively related to engagement and negatively to burnout (Kaiser et al., 2020), flaws in collaboration likely form a hindering factor for detective work. On the contrary, the positive attitudes of colleagues are an indication of a positive team climate. Several studies reported a positive relationship between team climate and work engagement (Hobfoll, 2001; Sharma & Bhatnagar, 2017) which demonstrates the facilitating role of positive attitudes of colleagues.

Furthermore, in Theme 9 was found how certain factors were hindering detectives to perform their work as those factors inhibited their independence. Independence at work is often studied as a job resource (Gatti et al., 2019) having an impact on employee wellbeing. In this study, the decision authority of the prosecutor made detectives dependent on the Public Prosecution Service. In addition, the required approval of claims by the prosecutor as well as approval of work by coordinators created additional dependencies for detectives in performing common tasks. Also, information provision by colleagues and third parties created dependencies, where the latter was a result of difficult contact with third parties outside office hours. Therefore, detectives experience several dependencies while performing their work. These dependencies inhibit the detectives' independence at work which could have an impact on their wellbeing and therefore form a hindering factor.

Finally, in theme 5 was found how work experience in the Police organization was claimed beneficial for the detectives to perform their job. In JD-R research work experience (or organizational tenure) is usually included as a socio-demographic variable. JD-R studies controlling for organizational tenure primarily concerned burnout and turnover intention (e.g., see Kraemer & Gouthier, 2014; Lizano & Mor Barak, 2012). These studies have shown a negative relation between organizational tenure and the development of emotional exhaustion, which through a decreasing chance of burnout provides a barrier against turnover. This study found that detectives claimed their experience at the organization advantageous in performing their job and thus must be looked into the effect on job performance. The

organizational tenure-job performance relationship has been broadly studied and shown to be positive in general, but the strength of this relation decreases as tenure increases (e.g. see: Ng & Feldman, 2010; Uppal, 2017). Therefore, the findings of this study reflect the general notion that more years of organizational service may improve an individual's skills for core tasks performance and thus organizational tenure can be considered a facilitating factor.

Altogether, job demands in the form of illegitimate tasks, increasing task complexity, high workload, high work pressure, and emotionally demanding interactions were hindering detectives in their work. In addition, a lack of job resources such as organizational support, external collaboration, and independence at work also hindered the detective. On the contrary, job resources such as a positive team climate and the experience of coworker-, supervisor- and work culture support facilitated detectives in their work. Furthermore, a long organizational tenure was also claimed beneficial for detectives.

4.2.2. Red Tape

Factors that involved red tape were often concerned with aspects of work experienced as useless, complex, or time consuming and with tasks where detectives were dependent on others. In terms of demands and resources, the experience of red tape could thus relate to the presence of illegitimate tasks, increasing task complexity, a high workload, and a lack of independence at work. Below, these relationships are discussed, and it is decided which characteristics are included in study 2.

Although both red tape and illegitimate tasks are considered typical hindrance stressors for public servants (Basinka et al., 2018), a formal link between these two has not been established in the literature yet. Only den Dulk et al. (2021) briefly mention that illegitimate tasks can create hindrance stressors such as red tape, but no further evidence for the relation was found. An explanation for this gap could lie in the disparate focus of illegitimate task and red tape research respectively. Where research on illegitimate tasks is dedicated entirely towards identifying unreasonable and unnecessary tasks, red tape research has a broader focus. Red tape research initially focused on ineffective rules, regulations, and procedures (Bozeman, 1993) and hence captured a concept distinct from illegitimate tasks. However, in the more recent psychological process approach of red tape, the focus of red tape has also been pointed toward task-level requirements and how these contribute to the experience of red tape (Pandey, 2021). In this trend, using the concept of illegitimate tasks provides a new perspective on understanding experiences of red tape and thus provides a potential source of red tape.

The relation between task complexity and red tape is not prevalent in literature and only one study was found focusing on the role of task complexity and red tape in decision-making (Ingrams et al., 2021). They found that highly complex tasks produce decisions with higher levels of perceived red tape. However, red tape is more often studied with respect to organizational complexity in the context of technology implementation. For example, Welch & Pandey (2005) have found that the administrative and physical complexity of large organizations makes the coordination of organizational-wide technology applications difficult. In this way, administrative and physical complexity result from an organization's hierarchy which has been indicated as a source of red tape (Kaufmann et al., 2019; M. J. Moon et al., 2020). However, the organizational hierarchy could also affect task complexity and hence task complexity provides a new perspective on how organizational hierarchy leads to red tape.

In contrast to the previous, the relation between red tape and workload is more obvious since reducing the workload for public servants was one of the main drivers for cutting red tape (Gore, 1993). Recent studies have provided evidence that employees experiencing red tape, are more likely to produce a high workload (Harju et al., 2022; Huang et al., 2022) which is explained through burnout and procrastination behavior. Both perceptions of red tape and workload positively predict burnout, which in turn positively predicts perceptions of red tape and workload (Harju et al., 2022). Furthermore, perceptions of red tape

are related to procrastination behavior through an increased workload (Huang et al., 2022). Therefore, an interaction between the two demands is presumably.

Finally, for the relation between independence at work and red tape it is useful to refer to public-private differences. The notion that public organizations encounter more red tape than private organizations has driven red tape research since the beginning (Bozeman, 1993) and considerable explanations have been given. Of interest to this study is that public organizations are subject to a greater external control (Turaga & Bozeman, 2005) making them more subject to government rules and procedures. The influence of external control on red tape perceptions has been repeatedly shown (e.g. see Bozeman, 1993; Oh & Lee, 2022; Pandey & Kingsley, 2000). Government rules and procedures limit freedom of action and independence (Kaufmann et al., 2018) and hence through a lack of independence, the relation between external control and red tape can be explained. No studies have investigated this relationship yet but doing so would provide a new perspective on how external control leads to red tape.

Altogether, the relations between illegitimate tasks, task complexity, and independence at work with red tape are not prevalent in literature, whereas the link between workload and red tape is more often made. Task complexity and a lack of independence at work describe two typical characteristics of the studied context and may provide new perspectives on how external control and hierarchy impact perceptions of red tape. Therefore, these two are included in study 2 where a lack of independence is operationalized as task interdependence.

4.2.3. Limitations

Study 1 has three limitations which will be discussed below. Since this study will be followed by a quantitative study, the theoretical and practical implications and suggestions for future research are discussed in the general discussion.

First, this study a reflexive thematic analysis to identify themes from the data. Qualitative research methods are prone to subjectivity and therefore the results must be interpreted with caution. This poses a common limitation for this type of research since a different researcher could have come up with different themes to describe the data. However, directions to perform a reflexive thematic analysis described by Braun & Clarke (2006) have been followed in to come up with the themes in a substantive and transparent manner.

Furthermore, the themes were generated using an inductive approach (i.e., bottom-up) which makes them strongly linked to the data themselves. This raises the question to what extent the findings apply to the entire population of Dutch detectives. In addition, the interviewees were detectives from two departments which further limits generalization. However, since this study is followed by a quantitative part, generalization problems are being addressed.

A final limitation of this study is that the interviews were performed by another researcher and study 1 thus relies on secondary data sources. Although the involvement of multiple researchers addresses the subjectivity limitation, this also provides a limitation because no influence could be exerted on the interview protocol and guiding the interviews. Preferably, the interviews were fed by questions relevant to this particular study which might have provided more specific information regarding hindering and facilitating job characteristics. However, following an inductive approach ensured that all interviews were still applicable to this study since this approach is open to unexpected findings.

5. Results and Discussion Study 2

5.1. Results

In this section, the outcomes of the quantitative analysis are elaborated. First, descriptive statistics and simple statistical tests are presented to provide an exploratory overview of the data. Thereafter, multilevel models are presented that were used to test the hypothesized relationships and interaction effects.

5.1.1. Descriptive Statistics

For an exploratory overview of the data, descriptive statistics and statistical tests (one-way ANOVAs) are presented. Table 5.1 presents the means, standard deviations, and bivariate correlations of the different constructs and continuous control variables (age and organizational tenure). From the means, it appears that the average work engagement was 3.49 which indicates that detectives often feel engaged in their work. Furthermore, the score for task-level red tape was 1.58 which suggests a moderate experience of red tape in operational administrative tasks by the detectives. However, the mean score on general red tape was 2.53 and thus on a more general level, the detectives experienced a moderate to high level of red tape in the organization. Finally, the means of the different demands and resources indicated the presence of moderately to high job and personal resources and a moderately demanding work environment.

The Pearson correlation coefficients in Table 5.1 provide an initial understanding of potential linear relationships between the different constructs. Most correlations are in line with the proposed hypotheses as significant positive correlations ($p < .05$ or $p < .01$) were found between the constructs of the hypothesized relationships, which was true for both between- and within-person correlations. Task complexity and task interdependence were positively correlated with both types of red tape. The job resources (autonomy and work-related support) and resilience positively correlated with work engagement. However, no significant correlation was found between PSM and work engagement. Furthermore, significant correlations between general red tape and the resources and work engagement respectively provide an understanding of the possible moderating role of red tape. For general red tape, significant between-person correlations were found with work engagement and all resources except resilience. For task-level red tape, significant between-person correlations were found with work engagement and job resources (autonomy and work-related support), but no significant within-person correlations with these constructs were found.

Furthermore, Table 5.1 includes age and organizational tenure as control variables and significant correlations between these and the dependent variables motivate the inclusion of control variables in further analyses. Both variables show significant correlations with either of the dependent variables. However, due to a small sample size, only organizational tenure is included as a control variable because age and organizational tenure are highly correlated. Furthermore, one-way ANOVAs were performed on the categorical control variables (gender, education, contract hours, function) to assess their effect on continuous dependent variables (Nagpaul & Roy, 2003). The results of the ANOVAs are provided in Table 5.2. A significant difference in task-level red tape was found for the control variables contract hours and function. Further post-hoc analysis (Turkey's-b) revealed a difference in mean task-level red tape between detectives with a contract of 36 or more hours and the other categories, where detectives of this respective group experienced higher task-level red tape. For the control variable function, further post-hoc analysis showed no distinct subsets, and thus no clear difference in mean was found. Therefore, besides organizational tenure, contract hours is also included as a control variable.

Table 5.2: ANOVA Results for Categorical Control Variables

Control variable	Task-level red tape		Work Engagement	
	F- value	Sig.	F-value	Sig.
Gender	F(2,151) = 1.643	.197	F(2,152) = 0.731	.483
Education	F(5,148) = 1.198	.313	F(5,148) = 0.454	.841
Contract hours	F(2,151) = 12.575	<.001	F(2,151) = 1.836	.163
Function	F(5,148) = 3.368	.007	F(5,148)= 1.215	.305

Finally, since repeated measures were used in this study, it is interesting to plot how these values fluctuate over the days. Figure 5.1 shows the fluctuation of task-level red tape and work engagement throughout the different days. The graph is based on the person-mean-centered constructs. In this case, centered values provide more information than absolute values because the centered values reflect a respondent's deviation of its mean and therefore better visualize fluctuations. As can be seen, the means for task-level red tape are close to zero which suggests that the experience of red tape is rather stable across days. Only a slight decrease in task-level red tape is observed for days 4 and 5 which could mean that less red tape is experienced closer to the weekend. On the other hand, work engagement is ought to fluctuate more as larger deviations of the mean are observed.

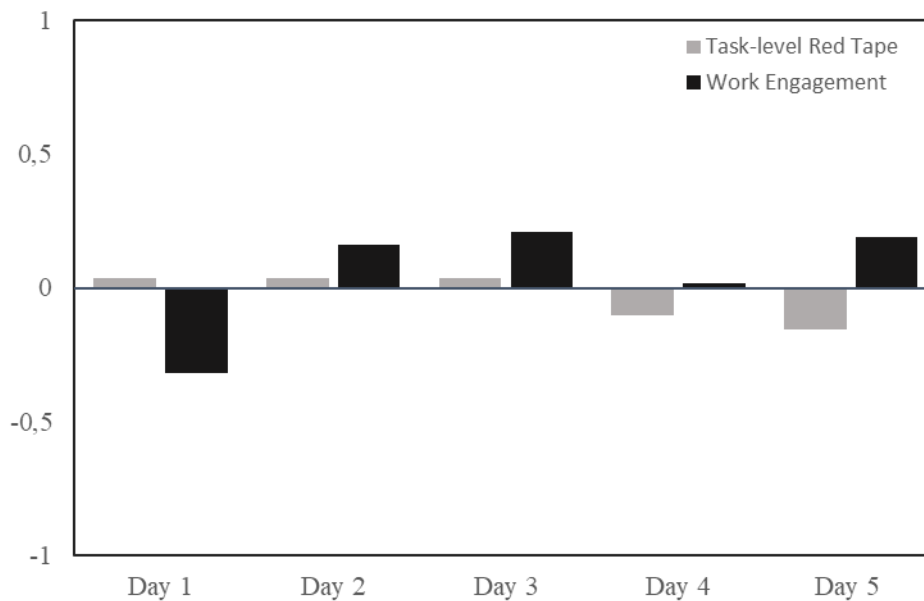


Figure 5.1: Fluctuations of task-level red tape and work engagement over five days

Table 5.1: Descriptive Statistics and Pearson Correlation Matrix

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
<i>Level 2</i>													
1. Age	48.02	11.60	-										
2. Organizational tenure	24.21	12.73	.85**	-									
3. PSM	2.31	.51	.06	0.03	-								
4. Task complexity	2.00	.68	.22**	.24**	-.12**	-							
5. General Red tape	2.53	.79	.14**	.26**	-.07	.19**	-						
<i>Level 1</i>													
6. Task interdependence	1.62	.85	.01	-.01	-.20**	.15**	.22**	-	-.35**	-.12	-.05	.16*	-.15
7. Autonomy	2.74	.64	.19**	.12*	.28**	-.04	-.16**	-.25**	-	.31**	.20*	-.15	.30*
8. Work-related support	2.89	.58	.16**	.17**	.28**	-.04	.12*	-.091	.22**	-	.12	-.08	.25**
9. Resilience	4.32	1.08	-.02	-.14**	0.10	-.09	.06	.06	.26**	.10	-	-.01	.19*
10. Task-level red tape	1.58	1.04	-.17**	-.01	-.05	.16**	.44**	.19**	-.18**	-.11*	-.02	-	-.06
11. Work engagement	3.49	0.99	.24	.19**	0.10	-.03	-.22**	-.24**	.31**	.29**	.23**	-.19**	-

Note. M = mean, SD = standard deviation. Correlations below the diagonal represent between-person correlations, where the within-person variables (i.e. level 1) were averaged across days. The correlations above the diagonal represent within-person correlations. Means and standard deviations of constructs are person-level means.

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

5.1.2. Test of Hypotheses

This section presents the results of the multilevel analyses which were used to test the hypotheses. The analyses were performed in SPSS using the “Mixed Models” command on the centered constructs, where the level 2 variables were grand-mean centered and the level 1 variables person-mean centered. To test hypotheses 1 and 2, multilevel models with task-level red tape as a dependent variable were estimated as described in the method section. To test the remaining hypotheses, multilevel models with work engagement as a dependent variable were estimated. In addition, simple slope tests for interaction effects in multilevel models were calculated as proposed by Preacher et al. (2006). The results are presented below.

Main Effects of Task Complexity and Task Interdependence on Task-level Red Tape

Table 5.3 shows the results of a multilevel analysis testing whether task complexity and task interdependence positively relate to task-level red tape as proposed in hypotheses 1 and 2. The analysis was only performed for the dependent variable task-level red tape (and not general red tape) because multilevel modeling requires the dependent variable to be measured on the lowest level and hence only task-level red tape is used. The first model (i.e., model 0) represents an empty baseline model, which only contains a constant intercept term and estimates for the between-person and within-person variances. Significant between- and within-person variances were found (Wald $z = 5.192$, $p < 0.001$; Wald $z = 6.540$; $p < 0.001$) and a significant z -value for between-person variance indicates that the use of a random-intercept model is necessary (Seltman, 2014). Furthermore, the estimates provide insight into the amount of variance in red tape that is observed between detectives and within detectives over time. From the estimates, the Intraclass Correlation Coefficient (ICC) is approximated, which represents the percentage of variance at the personal level. The $ICC = .935 / (.242 + .935) \approx 0.80$. Hence, 80% of the variance in task-level red tape can be attributed to personal differences and the remaining 20% can be attributed to daily differences within detectives.

The following model (i.e., model 1) adds predictor and control variables as fixed effects. The predictor variables are task complexity and task interdependence. Since task interdependence was measured daily, it is included as both a level 1 and level 2 predictor, where the latter represents an aggregate on the person level. Task complexity was measured on a person level and therefore only included as a level 2 predictor. Furthermore, organizational tenure and contract hours were included as control variables (level 2). The level 1 variable was person-mean centered, and the level 2 variables were grand-mean centered. The results of model 1 show significant between- and within-person variances (Wald $z = 5.079$, $p < .001$; Wald $z = 6.547$; $p < .001$) and show a significant improvement of the null model ($\chi^2 = 13.730$, $p < .05$). Furthermore, a positive association between contract hours and task-level red tape was found ($t = 2.802$, $p < 0.01$), which suggests that detectives with more contract hours experience higher task-level red tape. However, no significant effects were found for the predictor variables which implies that within-person and between-person differences in task interdependence and between-person differences in task complexity were not related to task-level red tape in the present study and therefore no support was found for hypotheses 1 and 2.

Table 5.3: Multilevel estimates for models predicting task-level red tape

	Model 0			Model 1		
	Est	SE	t	Est	SE	t
<i>Level 1</i>						
Intercept	1.560	.124	12.602**	1.567	.114	13.742**
Task Interdependence				.107	.0765	1.402
<i>Level 2</i>						
Organizational tenure				.001	.001	.121
Contract hours				.428	.153	2.802**
Task Interdependence				.193	.140	1.384
Task Complexity				.139	.179	.776
			(Wald Z)			(Wald Z)
Between-person Variance	.935	.180	5.192**	.774	.152	5.079**
Within-person Variance	.242	.037	6.540**	.237	.036	6.547**
-2*log (lh)		369.551			355.821	
Diff-2*log					13.730*	
<i>Df</i>					5	

Note: Est = estimate, SE = standard error, t = t-value. DV= task-level red tape. ICC = intraclass correlation coefficient.

*p<0.05; **p<0.01

Main Effects of Job and Personal Resources on Work Engagement

Table 5.4 presents the results of the multilevel analysis used to test whether job resources (autonomy and work-related support) and personal resources (PSM and resilience) are positively related to work engagement as was hypothesized in hypotheses 3-6. The table also includes the interaction effects between red tape and the job and personal resources respectively, but these will be discussed later. Similar to the previous analysis, first a null model was estimated, but for visualization purposes this model is not presented in the table. The null model has a significant intercept ($p < 0.01$) and shows significant between- and within-person variances (Wald $z = 3.235$, $p < 0.001$; Wald $z = 6.353$; $p < 0.001$) which indicates that random-intercept models are appropriate. Furthermore, the ICC was approximated at $.525 / (.525 + .655) \approx 0.44$ and hence 44% of the variation in work engagement can be attributed to personal differences. The rest of the variation can thus be attributed to within-person differences which suggest that work engagement fluctuates on a daily level.

In model 1, fixed predictor and control variables were added. The predictor variables include autonomy, work-related support, and resilience as both level 1 and level 2 predictors, where the level 2 predictors represent aggregates at the person level. The predictor variable public service motivation was included as a level 2 predictor since it was measured on the person level. The model furthermore includes organizational tenure and contract hours as control variables (level 2). The results of model 1 show significant between- and within-person variances (Wald $z = 2.844$, $p < .001$; Wald $z = 6.147$; $p < .001$) and show a significant improvement of the null model ($\chi^2 = 43.074$, $p < .01$). Furthermore, the model shows a significant between effect for autonomy ($t = 2.421$, $p < .05$), but no significant within-effect was found. This implies that differences between detectives in autonomy positively relate to work engagement. Altogether, detectives reporting a higher autonomy were more engaged in their work which provides support for hypothesis 3. However, no significant within- or between-effects for the other variables were found and thus hypotheses 4, 5, and 6 are rejected.

Moderating Effect of Red Tape

Table 5.4 also presents the results of the models used to test the moderating effect of red tape on the relations between the independent variables (i.e., job and personal resources) and work engagement. For autonomy, work-related support, and resilience it was expected that red tape boosts the relation with work engagement (hypotheses 7 and 8b). In contrast, for PSM it was expected that red tape weakens the relation between PSM and work engagement (hypotheses 8a). In this study, two measures of red tape are used and therefore two additional models are estimated. Model 2 includes interactions between the independent variables and general red tape, whereas model 3 includes interactions between the independent variables and task-level red tape. Due to a small sample size, no random slopes were added. However, random slopes are a prerequisite for testing cross-level interactions (Preacher et al., 2006), and therefore only interactions between variables of the same level could be tested. The interactions in both models reflect level 2 interactions and for task-level red tape an aggregate was used.

In model 2 interactions were added between the job and personal resources and general red tape. Since model 1 is nested in model 2, model 2 was compared with model 1 and showed a significant improvement in model fit ($\chi^2 = 16.582, p < .01$). In model 2, a significant positive interaction effect between resilience and red tape was found ($t = 3.101, p < .01$). This suggests that between-person difference in resilience and general red tape together positively relate to work engagement. In addition, three significant direct effects were found. The between-person effect of autonomy ($t = 2.389, p < .05$) provides additional support for hypothesis 2. However, the between-person effects of work-related support ($t = 2.001, p < 0.05$) and resilience ($t = 2.791, p < .01$) cannot be interpreted as directly related to work engagement because the relations occurred after including red tape as a moderator, leaving hypotheses 4 and 6 unsupported.

Model 3 includes the interactions between the job and personal resources and task-level red tape. This model was also compared to model 1 and again a significant improvement of model fit was found ($\chi^2 = 26.102, p < .01$). The model shows two significant interactions. The interactions between work-related support and task-level red tape ($t = 4.240, p < .01$), and between resilience and task-level red tape ($t = 2.880, p < .01$) were both significant. Additionally, model 3 also shows two significant direct effects. The between-person effect of autonomy ($t = 2.254, p < .05$) makes autonomy a stable predictor across models, but the between-person effect of PSM ($t = -2.485, p < 0.05$) cannot be interpreted because it only occurred after including red tape as a moderator.

The results of models 2 and 3 indicate support for hypotheses 7 (for work-related support, not for autonomy) and 8b, but reject hypothesis 8a since no interaction effects were found for autonomy and PSM. However, to get more insight into the nature of the three interaction effects and to formally test hypothesis 7 and 8b, simple slope tests of interaction effects in multilevel models were calculated as proposed by Preacher et al. (2006). The online tool of Preacher's website was used for the calculations² and screenshots of the input are presented in Appendix D.

The interaction between work-related support and task-level red tape is presented in Figure 5.2. Detectives with high work-related support (at least one standard deviation above the mean) significantly felt more engaged than detectives with low work-related support when they experienced high task-level red tape (one standard deviation above the mean: $\gamma = 1.0842, SE = .2741, z = 3.9553, p < .001$). However, detectives with high work-related support (at least one standard deviation above the mean) significantly felt less engaged than detectives with low work-related support when they experienced low task-level red tape (one standard deviation below mean: $\gamma = -.5633, SE = .2457, z = -2.2924, p < .05$). Therefore, in the presence of high task-level red tape, a positive relation between work-related support and work

² Link website: <http://quantpsy.org/interact/hlm2.htm>

engagement occurred as was expected. But the negative relation when detectives perceived low task-level red tape was unexpected and hence hypothesis 7 is partially supported.

The interactions between resilience and both types of red tape are presented in Figure 5.3 (general red tape) and Figure 5.4 (task-level red tape). As presented in Figure 5.3, simple slope tests revealed that detectives with a high resilience (at least one standard deviation above the mean) significantly felt more engaged than detectives with a low resilience when they experienced high general red tape (one standard deviation above the mean: $\gamma = 0.6114$, $SE = 0.1709$, $z = 3.5787$, $p < .001$). However, no significant differences in work engagement were found when detectives reported low red tape (one standard deviation below mean: $\gamma = -.0593$, $SE = .1173$, $z = -.505$, $p = .6135$). The same applied for task-level red tape (presented in Figure 5.4; one standard deviation above the mean: $\gamma = .3406$, $SE = .1448$, $z = 2.3518$, $p < .05$; one standard deviation below mean: $\gamma = -.1534$, $SE = .1079$, $z = -1.4218$, $p = .1551$). Therefore, in the presence of high red tape a positive relation between resilience and work engagement occurred as was expected, but the lack of relationship when detectives experienced low red tape was unexpected and thus hypothesis 8b is partially supported.

Altogether, the results show partial support for the moderating role of red tape on the relation between work-related support and work engagement, but no support for the moderating effect on the relation between autonomy and work engagement. Therefore, hypothesis 7 is only partially supported for work-related support. Furthermore, the results show no support for the moderating role of red tape on the relation between PSM and work engagement which rejects hypothesis 8a. Finally, red tape was found to partially moderate the relation between resilience and work engagement which provides partial support for hypothesis 8b.

Table 5.4: Multilevel estimates for work engagement

	Model 1			Model 2 (moderator = general red tape)			Model 3 (moderator = task-level red tape)		
	Est	SE	t	Est	SE	t	Est	SE	t
<i>Level 1</i>									
Intercept	3.454	.099	34.960**	3.410	.094	36.162**	3.491	.088	39.841**
Autonomy	-.098	.157	-.620	-.080	.157	-.512	-.109	.154	-.709
Work-related support	.312	.233	1.337	.307	.233	1.317	.316	.227	1.389
Resilience	.146	.116	1.258	.150	.116	1.296	.142	.113	1.252
<i>Level 2</i>									
Organizational tenure	.009	.008	1.171	.009	.008	1.198	.004	.007	.586
Contract hours	-.020	.136	-.148	-.002	.132	-.013	-.146	.135	-1.085
Autonomy	.405	.167	2.421*	.404	.169	2.389*	.341	.151	2.254*
Work-related support	.328	.190	1.724	.362	.181	2.001*	.260	.173	1.503
Resilience	.135	.101	1.334	.276	.099	2.791**	.094	.095	.989
PSM	-.233	.216	-1.082	-.234	.205	-1.142	-.506	.204	-2.485**
Red tape				-.228	.139	-1.639	-.087	.093	-.928
Autonomy x red tape				.027	.267	.101	-.124	.184	-.677
Work-related support x red tape				.099	.257	.386	.746	.176	4.240**
Resilience x red tape				.424	.137	3.101**	.238	.082	2.880**
PSM x red tape				.195	.242	.808	.111	.198	.560
			(Wald Z)			(Wald Z)			(Wald Z)
Between-person Variance	.371	.131	2.844**	.231	.104	2.223*	.205	.089	2.319*
Within-person Variance	.556	.090	6.147**	.555	.090	6.201**	.528	.082	6.468**
-2*log (lh)		396.648			380.066			370.546	
Diff-2*log		43.074**			16.582**			26.102**	
<i>Df</i>		9			5			5	

Note : Est = estimate, SE = standard error, t = t-value. DV= work engagement. Model 1 was compared with a null model with the intercept as the only predictor (Est = 3.513; SE = .112; t = 31.495**; -2*log = 439.722; between-person variance = .525; SE = .162; Wald z = 3.235** within-person variance = .655; SE = .103; Wald Z = 6.353**; ICC = .455). Both model 2 and model 3 were compared with model 1.

*p<0.05; **p<0.01

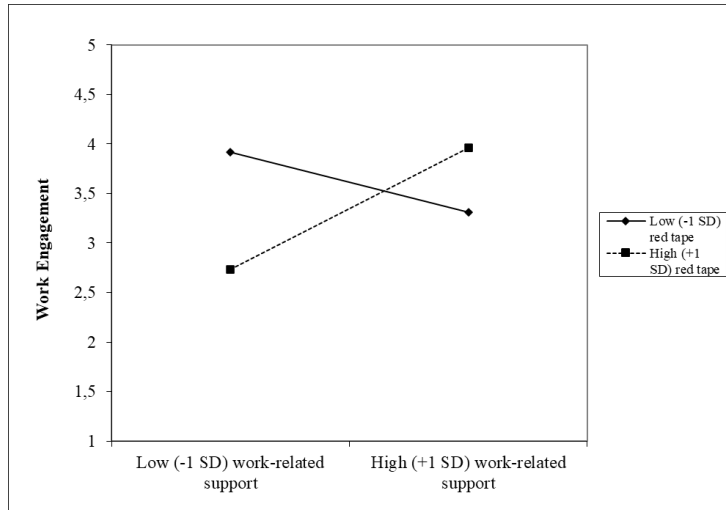


Figure 5.2: Interaction effect of work-related support and task-level red tape

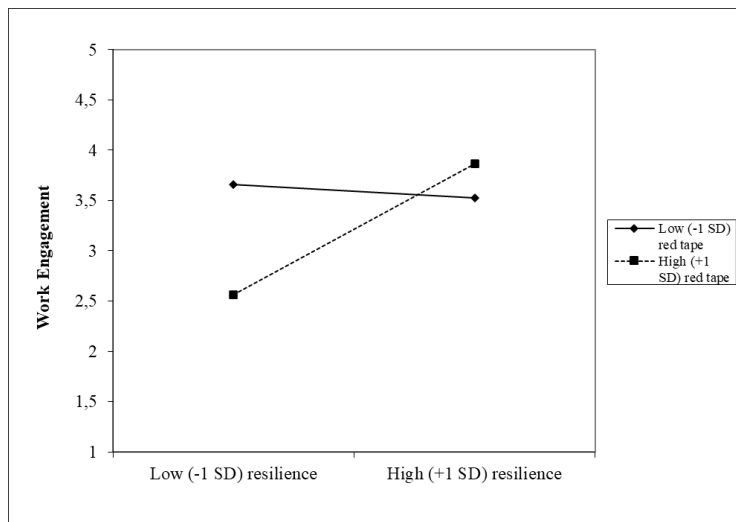


Figure 5.3: Interaction effect of resilience and general red tape

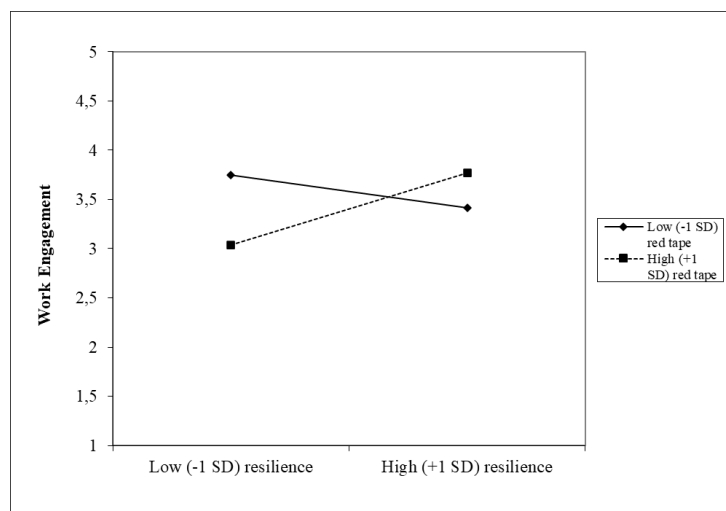


Figure 5.4: Interaction effect of resilience and task-level red tape

5.2. Discussion

Study 2 examined the relationship between two job characteristics and the experience of red tape, as well as the influence of red tape on the motivational process leading to work engagement. For the latter, drivers of work engagement and the moderating role of red tape were of interest. The relationships were examined using multilevel modeling (MLM). The findings showed that task interdependence and task complexity were not significantly related to the experience of red tape. Furthermore, autonomy was positively related to work engagement, while no direct relations were found for the other job and personal resources. Finally, red tape acted as a moderator on the relation between two resources (i.e., work-related support and resilience) and work engagement. These results provide an answer to the two sub-questions: “Which job characteristics of detective work are related to the experience of red tape?” and “What is the role of red tape on the motivational process leading to work engagement?”. The results show that perceptions of red tape are unrelated to task interdependence and task complexity, but that the experience of red tape plays a role in how job and personal resources are related to work engagement. In the following, the results are interpreted and compared with existing literature. The section ends by highlighting the study’s limitations. The implications are discussed in the general discussion.

5.2.1. Task Interdependence and Task Complexity

This study examined the extent to which task interdependence and task complexity relate to the experience of red tape. However, for both no significant relationships were found which questions whether these characteristics drive perceptions of red tape thus form a source of (bureaucratic) red tape. Since job characteristics are relatively unexamined in studies of employee perceptions of red tape (Ponomariov & Boardman, 2011), the reason to include these came from empirical research in study 1. Furthermore, since MLM requires a dependent variable to be measured on the lowest level, only task-level red tape was assessed. This suggests that the extent to which detectives were dependent on others to perform work and the extent to which they perceived their operational tasks as complex were unrelated to how burdensome, unnecessary and ineffective they considered their operational administrative tasks. A possible explanation might be that personal factors played a role in driving perceptions of red tape, which is in line with Brunetto et al. (2017) who have shown that both individual and organizational factors affected stress perception among Police officers. Therefore, this study might have oversimplified the situation by only using two job characteristics while more job and personal factors were necessary. Furthermore, a positive relationship between contract hours and task-level red tape was found which suggests that people with more contract hours may experience more red tape. A possible explanation is that the more hours detectives work, the more they are confronted with red tape, and thus experience higher levels of red tape. However, this relationship was not grounded in literature and may represent a spurious relationship.

5.2.2. Job and Personal Resources

This study investigated drivers of work engagement in detective work and thereby extended the literature on work engagement in a specific public sector context. Based on the assumption that public servants are more intrinsically than extrinsically motivated (Borst et al., 2019), the influence of work-related job resources and personal resources on work engagement was studied. The results showed that only autonomy was positively related to work engagement. This suggests that detectives who experience a high sense of control over their work are more engaged than detectives who experience a low sense of control which is in line with existing literature in the public sector (Borst, 2018; Mussagulova, 2021).

In contrast to the literature on social support and work engagement (Bakker & Demerouti, 2008; Jolly et al., 2021; Othman & Nasurdin, 2013; Taipale et al., 2011), detectives were not more engaged in their

work when they experienced high work-related support. This result can be explained using the moderating role of red tape on this relation. When high levels of red tape were experienced, a positive relation was found, whereas a negative relation was found when low levels of red tape were experienced. Without considering red tape, the positive and negative relations cancel each other out which explains the lack of a direct between work-related support and work engagement. Alternatively, the measure of work-related support used in this study captured received support rather than perceived support. In this study, the participants were asked to rate how resourceful the interaction with a certain contact person was. This question was only answered when an interaction had taken place and therefore reflects a received support measure. However, received support not necessarily translates into perceived support (Deelstra, 2003) and since most literature relies on perceived measures this might explain the lack of a relationship. Therefore, it is possible that while detectives received work-related support, they do not necessarily experience more perceived support in the workplace which is generally accompanied with higher levels of work engagement. Therefore, work-related support does not represent a motivating construct which explains why it was found unrelated to work engagement in this study.

Furthermore, resilience was expected to relate to work engagement because it assists in maintaining positive outcomes when exposed to stress. However, in contrast to previous research (Cao & Chen, 2019; Lyu et al., 2020; I. O. Moon et al., 2013) no direct relation was found which suggests that detectives are not more engaged when they report high resilience. An explanation is found in the fact that resilience is a response to a situation (van den Heuvel et al., 2010) and hence should be measured with respect to a stressful situation. Most public sector research on resilience has focused on nursing, where it was found a direct predictor of work engagement. However, nurses might be more exposed to stressors and hence rely more on their personality traits such as resilience to become engaged in their work.

Finally, PSM measured the desire to undertake meaningful work and the willingness to help others. It was expected that detectives reporting a high PSM are more engaged in their work. PSM is exclusively studied in the public sector where it has been shown to have a positive effect on work engagement (Borst, 2018; Cooke et al., 2019; de Simone et al., 2016). Surprisingly, this effect was not found. There are several potential explanations for this unexpected finding. One possibility may be that the concept of PSM was originally developed and studied in the United States, where the meaning and expectations of public service may differ from those in the Netherlands. For this reason, a Dutch PSM measure was deliberately chosen. However, it may still be possible that this measure does not capture a useful construct in the Netherlands. Alternatively, it may be that the so-called “dark side” of PSM (Giaque et al., 2012, 2013) may be at play. This explains that high levels of PSM can lead to increased pressure and stress perceptions, which in turn have a negative impact on work engagement. This suggests that some detectives experience more stress when they have high PSM and thus report lower work engagement which can cancel out the often positive relation observed between PSM and work engagement.

5.2.3. Moderating Effect of Red Tape

This study was among one of the first to explore the moderating role of red tape on the motivational process leading to work engagement. In this study, this moderating effect was only found for work-related support and resilience. For these resources was found that in the presence of high red tape detectives were more engaged if they possessed high resources. For resilience this was found for both measures of red tape, whereas for work-related support it was only found for task-level red tape. These findings suggest that detectives used their resources to cope with the demands of red tape which underlines the statement that job and personal resources gain motivational potential in the presence of high job demands (Bakker & Demerouti, 2008). Furthermore, the findings also showed that not all

resources were useful in dealing with red tape since no interaction effect occurred between autonomy and PSM with red tape. Surprisingly, for work-related support was also found that in the presence of low red tape detectives were less engaged. This finding might suggest a positive influence of red tape, but a more plausible explanation could be given using the downside of social support, often found in studies focusing on received support (Deelstra, 2003). Individuals under stress more often receive support. This study only included red tape, but high work-related support could also indicate detectives received this support because other job demands were at play. This however goes behind the scope of this research.

5.2.4. Limitations

There are several limitations to consider when interpreting the results of study 2. First, the sample size was small and unbalanced, consisting of 111 respondents with low daily response rates. While multi-level modeling (MLM) is generally robust to this type of data (Muth et al., 2016), it may be accompanied with a reduced reliability. However, this was minimized by excluding the use of random slopes in the analysis. Second, the generalizability of the results is limited as the study only included employees of the Dutch criminal investigation department, meaning that the findings are specific to this context and cannot be generalized to other sectors. Third, self-reported measures were used, and thus independent and dependent variables were obtained from the same source. While the data were centered to decrease the correlation between measures, the use of self-reported measures may still pose a risk for common method variance (CMV). This occurs when the same method of data collection influences both the independent and dependent variables, potentially leading to biased results (Cooper et al., 2020) which is important to consider when interpreting the findings. Finally, despite using a within-subject design, only significant between-person effects were found. This may have been due to a low daily response rate and therefore no within-person effects were found. Exploring the within-person effects could have provided a deeper understanding of the hypothesized relationships.

6. General Discussion

This study aims to explore the work context of detective work to understand how job characteristics relate to perceptions of red tape, and to understand the role of red tape on detectives' motivation. The research question that is addressed is: "Which job characteristics relate to the experience of red tape, and how can these be addressed to improve work engagement in the presence of red tape?". This question is addressed following a mixed-method approach consisting of in-depth interviews (study 1) followed by a diary study (study 2). The interviews pointed out many indications of the presence of red tape in detective work. These indications were found in aspects of work that were experienced as either useless, complex, time consuming, or where detectives were dependent on others to perform work. Following the JD-R model, these aspects were described as the following four job characteristics: 1) the presence of illegitimate tasks, 2) an increasing task complexity, 3) a high workload, and 4) a lack of independence at work. In study 2, two of these job characteristics were operationalized as task complexity and task interdependence and explored whether they relate to the experience of red tape. However, they were found unrelated which implies that studies 1 and 2 provide contrasting results. Furthermore, study 2 explored relations between job resources, personal resources, work engagement, and red tape. Autonomy was positively related to work engagement, and red tape was found to moderate two relations: the relation between work-related support and work engagement, and between resilience and work engagement. Under the circumstances of high experienced red tape, positive relationships were found for both resources. However, when the experience of red tape was low, the relation between work-related support and work engagement was negative, while no relation between resilience and work engagement occurred. The findings are discussed below.

6.1. Interpretation of the results

6.1.1. Contrasting results between studies 1 and 2

Signs from the workplace indicate the presence of red tape in certain job characteristics of detective work. However, a statistical relation between job characteristics and red tape was not found. Reflecting on the chosen operationalizations, oversimplification of the situation, and contextual differences helps to understand the contrasting findings and what these suggest about the experience of red tape.

Operationalizations

A possible reason for the contrasting results is that the operationalizations of the constructs in study 2 do not describe what was observed in study 1. The presence of red tape in detective work was identified using different types of red tape described in the literature (such as information systems red tape or red tape manifested as task delays). Since these types were observed, they might represent more objective indications of red tape, while study 2 explores perceptions of red tape. However, objective indications of red tape are not necessarily related to subjective red tape (DeHart-Davis, 2014). This suggests that the identified hindering job characteristics may be accompanied with more objective indications of red tape (such as task delays), but not with perceptions of red tape.

Oversimplification

Another explanation is that the situation in study 2 was oversimplified by including two job characteristics. According to Kaufmann et al. (2019), understanding perceptions of red tape requires a comprehensive analysis that should account for multiple individual and organizational factors. This implies that possibly more job characteristics and also personal characteristics should have been included in study 2 to understand how red tape perceptions are formed. This in line with Brunetto et al. (2017) who have shown that individual and organizational factors affect stress perception among Police officers.

Contextual differences

A final explanation is that contextual factors were at play which have not been accounted for. The interviews were performed with detectives from two departments, while the questionnaires were distributed to detectives throughout the Netherlands. It is possible that the experience of red tape varies between detectives from different departments because of workplace difference. This suggests that the indications of red tape observed in detectives' task complexity and task interdependence might be specific to the two departments. Therefore, to understand red tape perceptions on an organizational level, contextual factors should be considered which further emphasizes the necessity of a comprehensive analysis (Kaufmann et al., 2019).

6.1.2. Job and personal resources to cope with red tape

The contrasting results indicate the complexity of understanding perceptions of red tape, and suggest that addressing task complexity and task interdependence is unlikely going to minimize perceptions of red tape. Nevertheless, perceptions of red tape form a daily reality for detectives as appeared from both studies. Therefore, this study aligns with other researchers (Dudau et al., 2020; Kaufmann et al., 2020) in saying that perceptions of red tape are likely an unavoidable part of bureaucratic functioning and attention should be directed towards finding ways for public servants to deal with red tape. The results of study 2 suggest that high levels of work-related support and resilience are useful resources for detectives to remain high levels of work engagement in the presence of red tape.

The moderating role of red tape shows the potential of work-related support and resilience as resources that detectives use to cope with red tape. As expected, when detectives experienced high red tape, they were more engaged if they reported higher work-related support or resilience. This emphasizes the statement that job and personal resources gain motivational potential in the presence of high job demands (Bakker & Demerouti, 2008). This suggests that when detectives are confronted with high levels of red tape, they use work-related support and resilience to maintain their work engagement. Since work engagement is an indication of employee wellbeing (Schaufeli et al., 2002), these resources provides a possible way in which detectives can protect themselves for the negative effects of red tape.

However, when the experience of red tape was low, detectives were less engaged if they reported high work-related support, whereas no relation occurred for resilience. This unexpected finding of work-related support points towards a potential downside of social support. This study focused on red tape, but police work involves many other job stressors. As individuals under stress more often receive support (Deelstra, 2003), the detectives who report high levels of work-related support may have received support for dealing with other stressors. However, other job stressors have not been controlled for so this remains speculative. Furthermore, the lack of a relationship between resilience and work engagement suggests that resilience in itself is not engaging, but only under certain circumstances. Resilience is a response to a situation that should be measured with respect to a stressful situation (van den Heuvel et al., 2010). Therefore, a low experienced red tape does not reflect a stressful situation which explains the lack of a relationship.

The positive relations found under a high perceived red tape suggest that detectives can cope with red tape by using their job and personal resources. This implicates that job and personal resources of detectives can be addressed to deal with red tape while maintaining an engaged workforce. However, this study only found evidence for work-related support and resilience as such resources, since no relations were found for autonomy and public service motivation. Hence, organizations should carefully consider which resources to address in order to provide a barrier to red tape. Nevertheless, a positive direct relationship between autonomy and work engagement was observed which suggests that

autonomy is an important job characteristic that, regardless of the level of experienced red tape, is useful for maintaining work engagement.

6.2. Limitations

This study has four critical limitations that should be noted. Firstly, the use of qualitative research methods is prone to subjectivity, which poses a limitation to study 1, because a different researcher could have come up with different themes to describe the data. However, directions to perform a reflexive thematic analysis described by Braun & Clarke (2006) have been followed to come up with the themes in a systematic manner. In addition, the interviews were conducted by an external researcher, and thus multiple researchers were involved in study 1 which also addresses subjectivity. Secondly, the findings of study 1 are limited in terms of generalizability. The study relied on the input of sixteen detectives from two departments, and the themes were generated using an inductive approach, making them strongly linked to the data itself. These generalizability issues were addressed in study 2, however, the results could not be confirmed and therefore should be interpreted with caution. Thirdly, the sample used in study 2 consisted of 111 respondents with low daily response rates and thus represents small and unbalanced data. Although MLM is generally robust to this type of data (Muth et al., 2016), the results of study 2 may be accompanied by reduced reliability. This issue was addressed by excluding the use of random slopes in the analysis. However, a small sample size, consisting of employees from only one organization, makes the results specific to the researched context and thus findings cannot be generalized to other sectors. Furthermore, the low daily response rate could explain why only between-person relations occurred. Although within-person effects would have provided a deeper understanding of the hypothesized relationship, the between-person effects describe correlations between variables. Therefore, no causality can be assumed which means that relationships can also occur in the opposite direction. Finally, in study 2 self-reported measures were used, and thus independent and dependent variables were obtained from the same source. While the data were centered to decrease the correlation between measures, the use of self-reported measures still poses a risk for common method variance (CMV). This occurs when the same data collection method influences independent and dependent variables, potentially leading to biased results (Cooper et al., 2020), which is important to consider when interpreting the findings.

6.3. Theoretical Implications

This thesis makes three contributions to the literature on red tape and work engagement. First, most red tape research has focused on understanding the (negative) effects of red tape (Bozeman & Anderson, 2016). This thesis contributes to the field by exploring factors related to the experience of red tape, thereby providing insight into possible sources of red tape. Researchers have expressed the importance of qualitative red tape research for building theories and conducting empirical research (Ricucci, 2012). This thesis performed a reflexive thematic analysis to explore a work context where public servants are often confronted with red tape, which provides a basis for further theorizing on the sources of red tape. Furthermore, this thesis explored new relationships between job characteristics and red tape, which remain a relatively unexamined area (Ponomarev & Boardman, 2011). Second, several researchers have expressed the importance to perform more work engagement research in the public sector (Borst, 2018; Zahair & Kaliannan, 2022). This thesis responded to this call by exploring relationships between job and personal resources with work engagement in a new organizational context. Therefore, this thesis contributes to the literature by examining drivers of red tape in a specific public sector setting. Third, this study incorporated red tape as job demand in the JD-R model. Pandey (2021) has called out that further exploration of red tape as a job demand should be on identifying psychological mechanisms through which red tape has an impact. Therefore, this thesis contributes to

the literature by demonstrating the potential for the motivational process leading to work engagement as a psychological mechanism for studying the influence of red tape on public servants' motivation.

6.4. Practical Implications

The findings of this thesis offer practical implications to address the problem of red tape within the Dutch Police. Hence, two practical implications for the Ministry of Justice and Police organization are presented.

First, it is recommended to address the signals of red tape coming from the workplace, where a departmental approach is necessary if these signs do not indicate broader organizational problems. The interviews revealed many indications of red tape, and while these indications could not be linked to specific job characteristics, they should not be ignored. The detectives reported these indications as hindrances, which makes it necessary to address them. However, it is too early to conclude that these signs indicate organizational-wide problems. Therefore, it is advised to use the indications of red tape found in the interviews as starting point to create a list of red tape indicators. In turn, these indicators can be used to assess if the problems also occur in other departments, which helps determine how to approach them. For instance, several indications pointed to the presence of red tape in the organization's information systems due to complexity, authorization, and synchronization issues. If these problems are observed in multiple departments, a company-wide approach to address them is favored. If not, the problems should be addressed locally, and somebody should be made responsible. Since the problems are already observed in the departments involved in this study, the Police could use these departments as a trial for exploring possible solutions. Thereto, the advice is to form a committee consisting of members from multiple layers within the particular department. The committee's goal should be to develop concrete action steps that lie within the power of the department to eliminate the hindering aspects. These actions should be implemented and evaluated, and if successful, shared with other departments facing similar problems.

Second, since perceived red tape is likely an unavoidable part of bureaucratic functioning, it is recommended to strengthen detectives' job and personal resources such that they can deal with red tape while maintaining their work engagement. This study highlights the potential of work-related support and resilience as two resources that detectives use to maintain work engagement when they experience high levels of red tape. Therefore, advise for the Police is to build an engaged workforce by facilitating work-related support and promoting resilience among its personnel. The first can be done by fostering a supportive work environment. Maguen et al. (2009) have already demonstrated the importance of this in a police setting, showing it protects against the impact of stressors. Furthermore, promoting resilience can be done by resiliency training. Several studies showed positive effects of resilience training for Police officers (Chitra & Karunanidhi, 2021; Papazoglou et al., 2015; Ramey et al., 2017). Therefore, resilience should be included as a spearhead in the Police educational program, ensuring that police personnel possesses these skills from the start of their careers.

6.5. Future research

Based on the above, three areas for future research are proposed. First, the findings of the reflexive thematic analysis can serve as a starting point for other researchers to use in exploring perceptions of red tape. Since not all job characteristics identified in study 1 were quantitatively evaluated in study 2, future studies could include these in studies aimed at understanding red tape perceptions. Second, the motivational process leading to work engagement provides a promising psychological mechanism to study how red tape affects employees and organizations. However, the negative outcomes of red tape were out of scope and hence future research should explore whether work-related support and resilience indeed mitigate the negative effects of red tape on organizational and employee outcomes through the

mechanism of work engagement. Given the strongest effects on employee outcomes such as work satisfaction and organizational commitment (Blom et al., 2021; George et al., 2021), it is recommended to start with these. Third, the relationships in this thesis represent correlations, but understanding causality between constructs is important to address red tape issues in organizations. Therefore, future research could concentrate on controlled studies to determine causality between the relationships that were found in this study.

6.6. Conclusion

This thesis explored whether job characteristics relate to the experience of red tape, and how these can be addressed to improve work engagement in the presence of red tape. Although red tape was found to be present in detective work, this is unlikely merely a result of high task complexity and high task interdependence as these were found unrelated to red tape. The contrasting results show that understanding perceptions of red tape requires a comprehensive approach that cannot only include job characteristics, but should also account for individual and contextual factors. Therefore, it can be concluded that addressing task complexity and task interdependence is unlikely going to minimize the experience of red tape. Nevertheless, as perceptions of red tape remain a daily reality for detectives, this thesis highlights the importance of finding ways to deal with red tape. This thesis shows that the experience of red tape moderates how detectives' job and personal resources are related to work engagement. When detectives experience high levels of red tape, they were more engaged if they either reported higher work-related support or resilience. This suggests that detectives relied on these resources to maintain work engagement in the presence of red tape. Hence, work-related support and resilience should be addressed to engage detectives in the presence of red tape.

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A. Interview Protocol

1. Introductie

Toelichting/Doel: Ik ga u nu heel kort uitleggen waarom wij vandaag hier zijn en waarom u bijdrage aan dit project zo belangrijk is.

2. Taken

Toelichting/Doel: Wij hebben het nu ten eerste over u dagelijkse taken en hoe u deze ervaart.

- 1) Kunt u kort beschrijven wat voor werkzaamheden u op een typische werkdag uitvoert?
- 2) Zijn er taken in uw werk die u als nutteloos en/of tijdrovend ervaart?

3. Netwerk

Toelichting/Doel: In deze sectie vragen wij naar uw relaties en de samenwerking met uw collega's in het opsporingsproces. Wij willen verstaan welke invloed uw netwerk, dus de relaties tussen uzelf en andere mensen in uw werk (collega's, leidinggevende, etc.), op uw werk heeft.

- 1) Kunt u met behulp van een voorbeeld weergeven met wie u tijdens een opsporingsproces (van opdracht tot afronding) in contact staat (Hoeveel? Wie? Functie? Hoe vaak?)?
 - a. Als u operationele informatie nodig hebt in z'n proces, wie vraagt/belt u dan?
 - b. Van wie bent u afhankelijk in een opsporingsproces?
 - c. Als anderen informatie nodig hebben, wie komt daarvoor bij u? •
- 2) Stel dat u hulp nodig zou hebben, bijvoorbeeld bij een lastige taak. Zijn deze contacten dan hulprijk? Als ja, hoe precies?
- 3) Zijn er ook situaties waarin uw netwerk niet behulpzaam is, maar zelfs lastigvallend?
 - a. Wat doet uw om dit op te lossen? Wat hebt u daarvoor nodig?
- 4) Welke contacten geven je energie? En welke contacten kosten je energie?
- 5) Hoe zou de samenwerking in/met uw netwerk kunnen worden verbeterd?

4. Leadership level

Toelichting/Doel: Nu hebben wij het over uw relatie met uw leidinggevende. Het is belangrijk om te verstaan welke rol uw leidinggevende in uw werk speelt.

- 1) Wie is uw leidinggevende (personeelsverantwoordelijk vs. inhoudelijk)?
- 2) Stel dat er tijdens uw werk taken zijn die uw lastig vindt. Informeer u uw collega's en/of leidinggevende hierover? Waarom wel/niet?
- 3) Welke ondersteuning biedt uw leidinggevende in deze situaties en over het algemeen?
- 4) Wat doet uw leidinggevende om lastige taken minder lastig te maken/op te lossen?
- 5) Wat zou uw leidinggevende voor uw kunnen doen dat u minder last van uw werk hebt?
- 6) Vindt u dat uw leidinggevende hoge eisen aan u stelt?
- 7) Welke verwachtingen heeft uw leidinggevende aan u?

5. Employee level

Toelichting/Doel: In deze sectie willen wij graag nog iets over uw persoonlijke ervaring weten. Dit is vooral belangrijk omdat iedereen een andere waarneming van dingen heeft.

- 1) Stel dat u uw werk lastigvalt of dat je het druk vindt. Wat doet u dan zelf/wat helpt u dan om minder last van uw werk te hebben?
- 2) Wat zou u persoonlijk kunnen doen dat u minder last van uw werk hebt? Wat kunt alleen uzelf doen om minder last van uw werk te ervaren?
- 3) Hoe gaat u om met situaties die u lastig of moeilijk vindt? Wat doet u dan, kunt u dat vertellen?
- 4) Wat hebt u van uw netwerk nodig om goed tegen moeilijkheden aan te kunnen?
- 5) Wat hebt u over het algemeen nodig om beter tegen moeilijkheden aan te kunnen?

6. Achtergrond

Toelichting/Doel: Nu hebben wij alleen nog een paar persoonlijke gegevens van uw nodig. Zoals ik in het begin zei, wordt alles anoniem verwerkt en uw antwoorden worden niet met uw persoon in verbinding gebracht.

- 1) Wat is uw leeftijd?
- 2) Wat is uw hoogst genoten opleiding?
- 3) Hoe lang werkt u bij de Politie?
- 4) Welke functies heeft u gehad bij de Politie?
- 5) Wat is uw huidige functie?
- 6) In welk team/specialisatie werkt u?

7. Einde

Toelichting/Doel: Vanuit mijn kant is het interview hiermee afgrond. Helemaal bedankt voor uw deelname!

- 1) Wilt u nog iets zeggen/toevoegen?
- 2) Mogen wij uw contact (e-mail of telefoonnummer) hebben om bij mogelijke vragen nog een keer contact op te kunnen nemen? • (ja/nee)

B. Items Questionnaires

Table 1: Items General Questionnaire

Construct	Items	Scale
Age	Hoe oud ben je (afgerond op hele jaren)?	Number, ratio scale
Gender	Wat is jouw geslacht?	[Man, Vrouw, Divers]
Education	Wat is jouw hoogst genoten opleidingsniveau binnen de politie?	[BOA, Niveau 2, Niveau 3, Niveau 4, Niveau 5, Niveau 6, Niveau 7, Anders namelijk]
Function	Wat is jouw functie?	[Assistent, Medewerker, Generalist, Senior, OE'er, OS]
Organizational tenure	Hoe lang werk je al voor de politie (afgerond op hele jaren)?	Number, ratio scale
Contract hours	Hoeveel uren werk je volgens jouw contract per week?	[< 24 uur, 24-32 uur, 32-36 uur, > 36 uur]
Task complexity	1) Ik vind operationeel administratieve taken complex. 2) Operationeel administratieve taken zijn mentaal veeleisend. 3) Operationeel administratieve taken vereisen veel denkwerk en probleemoplossend vermogen. 4) Ik vind operationeel administratieve taken uitdagend.	5-point Likert scale (0=helemaal mee oneens, 4=helemaal mee eens)
PSM	1) Ik zet me belangeloos in voor de samenleving. 2) Ik vind het belangrijk om een wezenlijke bijdrage aan de publieke zaak te leveren. 3) Werknemers in de publieke sector moeten altijd de publieke zaak dienen, ook als ik daar zelf nadeel van ondervind. 4) Ik zie het dienen van de publieke zaak als mijn plicht. 5) Ik vind het belangrijk om bij te dragen aan de ontwikkeling of uitvoering van overheidsbeleid. 6) Ik vind het belangrijker om een wezenlijke bijdrage aan de samenleving te leveren dan om persoonlijk succes te hebben. 7)Ik vind het moeilijk om mijn gevoelens te beheersen wanneer ik mensen in nood zie.	5-point Likert scale (0=helemaal mee oneens, 4=helemaal mee eens)
General red tape	1) Het invullen van formulieren en systemen kost me veel tijd. 2) Het kost mij veel tijd om te voldoen aan alle regels en verplichtingen binnen mijn organisatie. 3) Sommige regels en richtlijnen die ik tegenkom op mijn werk, spreken elkaar tegen. 4) Richtlijnen en regels worden in mijn organisatie belangrijker geacht dan mijn ervaring of intuïtie. 5) De regels en procedures in mijn organisatie maken het moeilijk om mijn werk goed uit te voeren. 6) Eisen van leidinggevenden en inspecties maken het moeilijk om mijn werk goed uit te voeren.	5-point Likert scale (0=helemaal mee oneens, 4=helemaal mee eens)

Table 2: Items Daily Questionnaire

Construct	Items	Scale
Task interdependence	Vandaag... 1) ... werden de activiteiten in mijn baan voor een groot deel beïnvloed door het werk van andere mensen. 2) ... was ik afhankelijk van het werk van veel verschillende mensen om dingen af te kunnen maken. 3) ... kon mijn werk niet gedaan worden, als anderen hun werk niet deden.	5-point Likert scale (0=helemaal mee oneens, 4=helemaal mee eens)
Autonomy	Vandaag... 1) ... had ik vrijheid bij het uitvoeren van mijn werkzaamheden. 2) ... kon ik zelf beslissen hoe ik mijn werk uitvoerde. 3) ... kon ik deelnemen aan besluiten die betrekking hebben op mijn werk.	5-point Likert scale (0=helemaal mee oneens, 4=helemaal mee eens)
Work-related support	1) De interactie met contactpersoon 1 vandaag was hulprijk 2) De interactie met contactpersoon 2 vandaag was hulprijk 3) De interactie met contactpersoon 3 vandaag was hulprijk 4) De interactie met contactpersoon 4 vandaag was hulprijk 5) De interactie met contactpersoon 5 vandaag was hulprijk	5-point Likert scale (0=helemaal mee oneens, 4=helemaal mee eens)
Resilience	Vandaag... 1) ... doorstond ik moeilijke periodes omdat ik al eerder moeilijke periodes heb doorstaan. 2) ... had ik het gevoel dat ik veel dingen tegelijkertijd aankon. 3) ... pakte ik taken meestal stapsgewijs aan.	7-point Likert scale (0=helemaal mee oneens, 6=helemaal mee eens)
Work engagement	Vandaag ... 1) ... bruiste ik van energie op mijn werk. 2) ... was ik enthousiast over mijn baan. 3) ... ging ik helemaal op in mijn werk.	7-point Likert scale (0=nooit, 6=altijd)
Task-level red tape	In hoeverre zou jij de operationeel administratieve taken die je vandaag bent tegengekomen in je werk omschrijven als belastend, niet noodzakelijk en ineffectief. Vandaag ... 1) ... waren de operationeel administratieve taken in mijn werk ... 2) ... waren de operationeel administratieve taken in mijn werk ... 3) ... waren de operationeel administratieve taken in mijn werk ...	(0) niet belastend - (4) belastend (0) noodzakelijk - (4) niet noodzakelijk (0) effectief - (4) ineffectief

C. Plots Assumptions Multilevel Models

The presented figures and table were used to test the assumptions for interpreting multilevel models.

Table 1: VIF values

Variable	VIF	DV
Task Interdependence	1.054	Task-level Red Tape
Task Complexity	1.054	Task-level Red Tape
Autonomy	1.154	Work Engagement
Work-related support	1.169	Work Engagement
Resilience	1.039	Work Engagement
PSM	1.109	Work Engagement

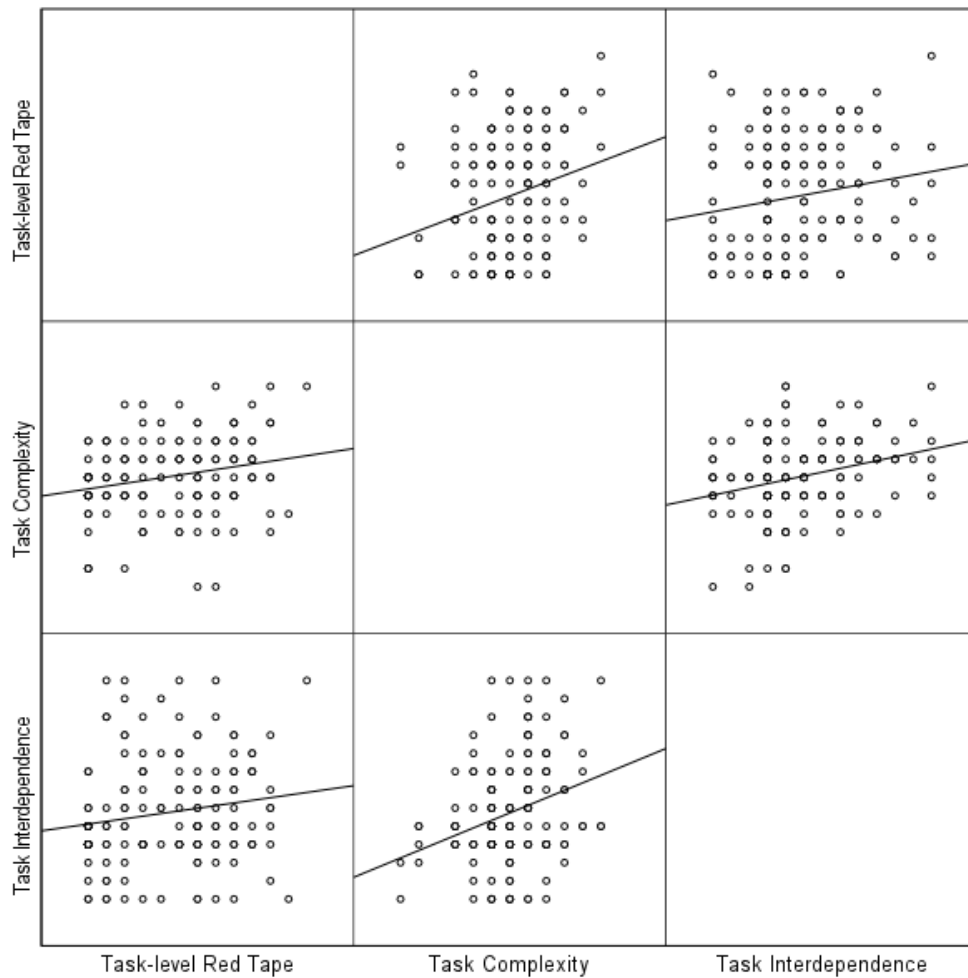


Figure 1: Scatter Matrix Task Interdependence, Task Complexity, Task-level Red Tape

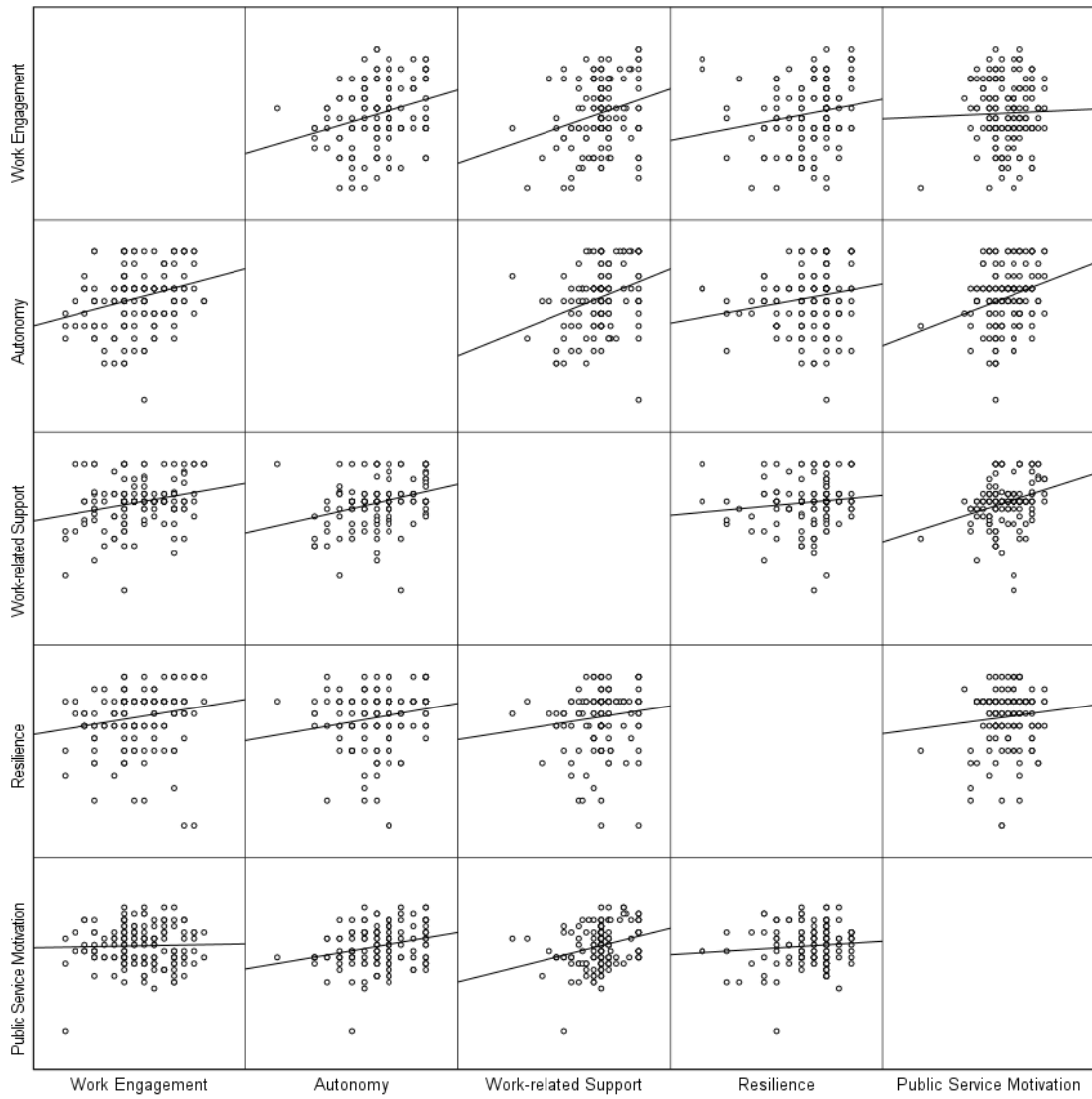


Figure 2: Scatter Matrix Job/Personal Resources and Work Engagement

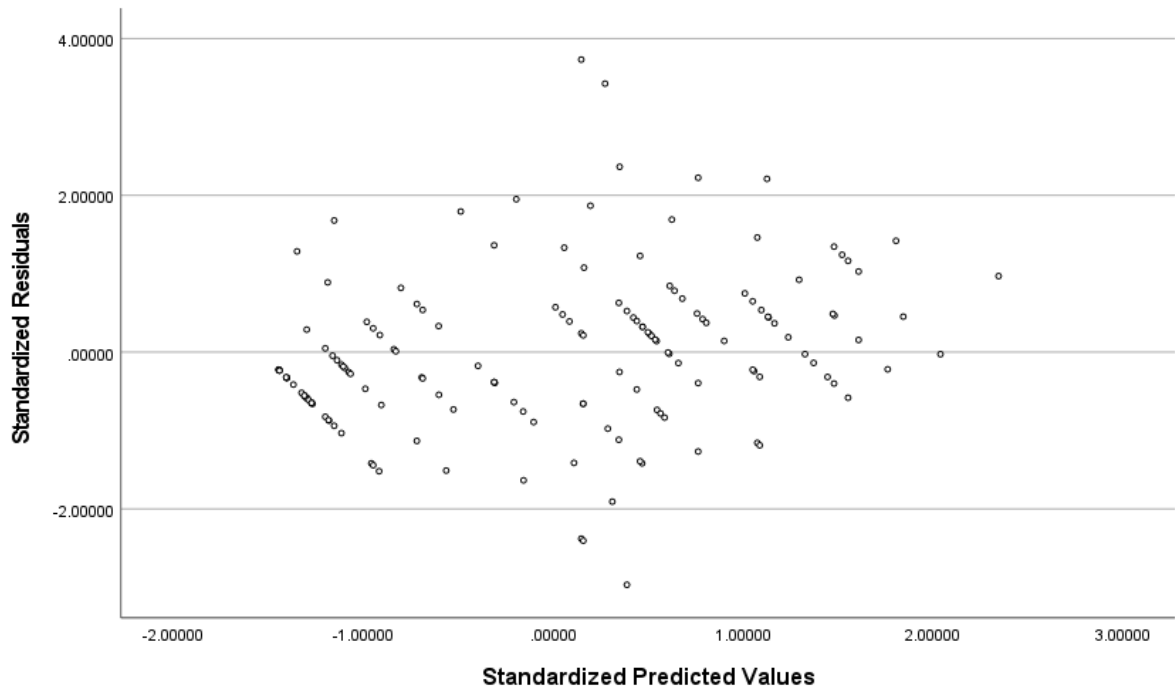


Figure 3: Residual Plot Task-level Red Tape

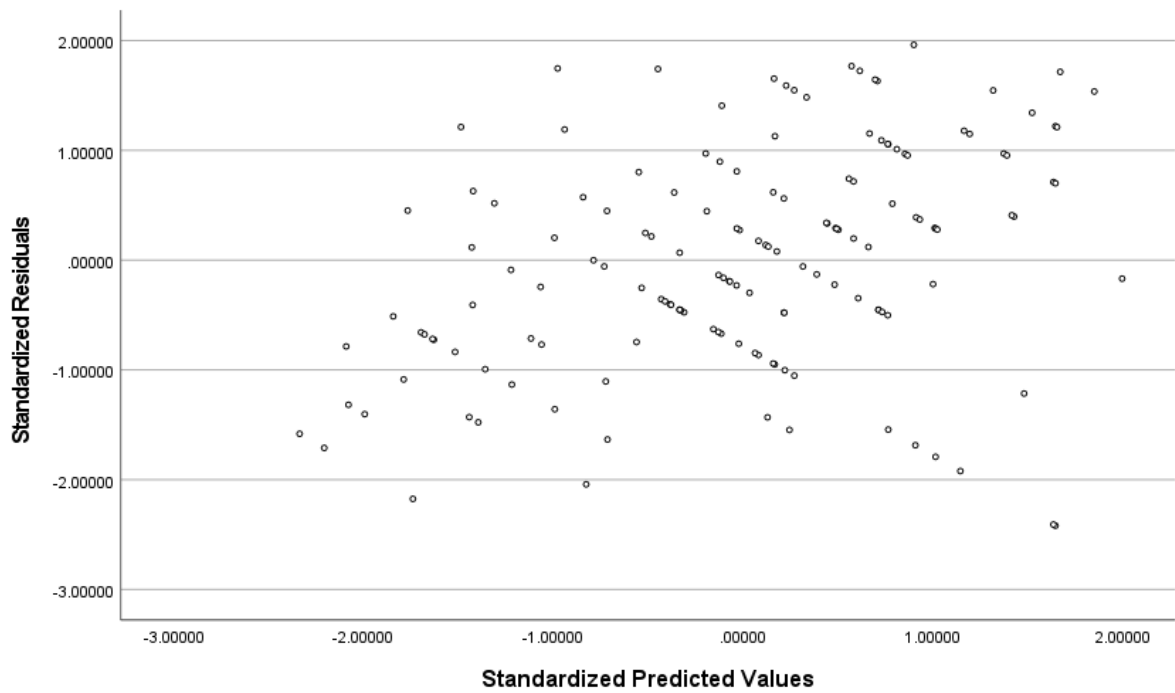


Figure 4: Residual Plot Work Engagement

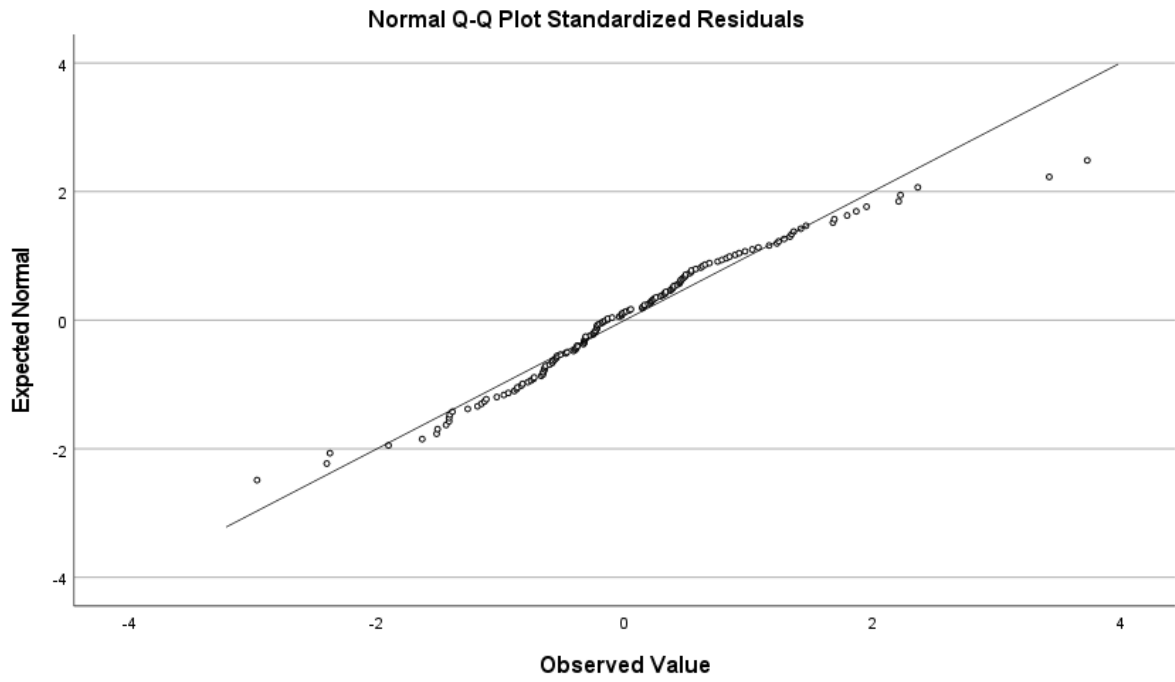


Figure 5: *QQ-plot Task-level Red Tape*

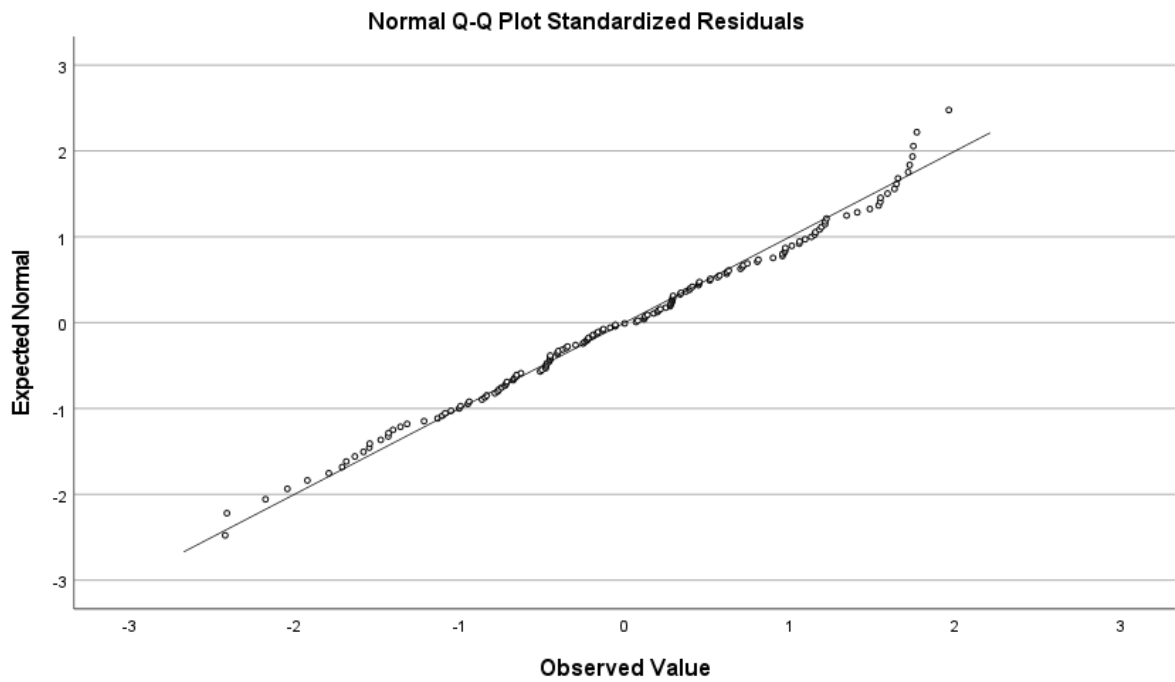


Figure 6: *QQ-plot Work Engagement*

D. Screenshots Preacher's tool

Case 2: w_1 : focal predictor; w_2 : moderator

$\hat{y} = \hat{\gamma}_{00} + \hat{\gamma}_{01}w_1 + \hat{\gamma}_{02}w_2 + \hat{\gamma}_{03}w_1w_2$					
Regression Coefficients		Coefficient Variances		Conditional Values of w_2	
$\hat{\gamma}_{00}$	3.479689	$\hat{\gamma}_{00}$	0.007995	$w_{2(1)}$	-1.103917
$\hat{\gamma}_{01}$	0.267719	$\hat{\gamma}_{01}$	0.031455	$w_{2(2)}$	0
$\hat{\gamma}_{02}$	-0.129244	$\hat{\gamma}_{02}$	0.007860	$w_{2(3)}$	1.103917
$\hat{\gamma}_{03}$	0.764544	$\hat{\gamma}_{03}$	0.032623	Points to Plot	
Degrees of Freedom*		Coefficient Covariances		$w_{1(1)}$	-0.57920
df_{int}		$\hat{\gamma}_{00,02}$	-0.000104	$w_{1(2)}$	0.57920
df_{slp}		$\hat{\gamma}_{01,03}$	0.003742	Other Information	
Calculate		Reset		α	.05
<input type="checkbox"/> ← Check this box if w_2 is dichotomous					
Status:		Status okay			

Figure 1: Input Interaction between work-related support and task-level red tape

Case 2: w_1 : focal predictor; w_2 : moderator

$\hat{y} = \hat{\gamma}_{00} + \hat{\gamma}_{01}w_1 + \hat{\gamma}_{02}w_2 + \hat{\gamma}_{03}w_1w_2$					
Regression Coefficients		Coefficient Variances		Conditional Values of w_2	
$\hat{\gamma}_{00}$	3.402882	$\hat{\gamma}_{00}$	0.008836	$w_{2(1)}$	-0.79080
$\hat{\gamma}_{01}$	0.272017	$\hat{\gamma}_{01}$	0.009330	$w_{2(2)}$	0
$\hat{\gamma}_{02}$	-0.238202	$\hat{\gamma}_{02}$	0.016959	$w_{2(3)}$	0.79080
$\hat{\gamma}_{03}$	0.421724	$\hat{\gamma}_{03}$	0.017468	Points to Plot	
Degrees of Freedom*		Coefficient Covariances		$w_{1(1)}$	-1.07694
df_{int}		$\hat{\gamma}_{00,02}$	0.002037	$w_{1(2)}$	1.07694
df_{slp}		$\hat{\gamma}_{01,03}$	0.004024	Other Information	
Calculate		Reset		α	.05
<input type="checkbox"/> ← Check this box if w_2 is dichotomous					
Status:		Status okay			

Figure 2: Input Interaction between resilience and general red tape

Case 2: w_1 : focal predictor; w_2 : moderator

$\hat{y} = \hat{\gamma}_{00} + \hat{\gamma}_{01}w_1 + \hat{\gamma}_{02}w_2 + \hat{\gamma}_{03}w_1w_2$					
Regression Coefficients		Coefficient Variances		Conditional Values of w_2	
$\hat{\gamma}_{00}$	3.479689	$\hat{\gamma}_{00}$	0.007995	$w_{2(1)}$	-1.03971
$\hat{\gamma}_{01}$	0.078685	$\hat{\gamma}_{01}$	0.008730	$w_{2(2)}$	0
$\hat{\gamma}_{02}$	-0.129244	$\hat{\gamma}_{02}$	0.007860	$w_{2(3)}$	1.03971
$\hat{\gamma}_{03}$	0.202548	$\hat{\gamma}_{03}$	0.006201	Points to Plot	
Degrees of Freedom*		Coefficient Covariances		$w_{1(1)}$	-1.07694
df_{int}		$\hat{\gamma}_{00,02}$	-0.000104	$w_{1(2)}$	1.07694
df_{slp}		$\hat{\gamma}_{01,03}$	0.001591	Other Information	
Calculate		Reset		α	.05
<input type="checkbox"/> ← Check this box if w_2 is dichotomous					
Status:		Status okay			

Figure 3: Input Interaction between resilience and task-level red tape