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**Increased Costs or an Incentive for Change? Red tape and Public Officials' Attitudes toward Public Participation.<sup>1</sup>**

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**Abstract**

Red tape is identified as a destructive organizational force that reduces officials' motivations and slashes organizations' performances. However, research on the effects of red tape on public officials' attitudes toward public participation has thus far remained inconclusive. Shifting the focus to rules and their characteristics, this study examines how rules' lack of functionality and rules' compliance burden affect public officials' attitudes toward public participation, and validates the job-centered red tape measurement instrument. Based on a sample of  $n = 879$  municipal public officials, this study reports the results of a structural equations model in which rules' lack of functionality were positively associated, and rules' compliance burden were negatively associated with respondents' public participation attitudes. These results indicate that red tape is too complex a construct to be captured by a one-dimensional instrument, especially in relation to attitudes toward public participation.

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## **Introduction**

What is the effect of red tape on public officials' attitudes toward public participation?

Scholars examining determinants of successful public participation are exploring the effects of red tape on participatory attitudes as well. Up to now, the results remain inconclusive.

Officials' willingness to engage with the public is an important attitudinal determinant of successful public participation. Irrespective of its benefits or disadvantages, without officials' positive attitudes toward public participation it is unlikely that participation would amount to anything (Hatcher, 2015; Ianniello et al., 2018; Liao & Schachter, 2018; Yang & Callahan, 2007; Zheng & Schachter, 2018).

There are important differences in public officials' attitudes toward public participation (Liao & Schachter, 2018; Yang & Pandey, 2011), but it remains unclear to what extent rules' lack of functionality and rules' compliance burden (e.g., red tape) contribute to these differences. Red tape, commonly defined as "*rules, regulations and procedures that entail a compliance burden without advancing the legitimate purposes they were intended to serve*" (Bozeman, 2000, p. 12), has been conceptualized as an organizational pathology with many detrimental effects to the functioning of public organizations and their employees (Bozeman & Feeney, 2011; Brewer & Walker, 2010a, 2010b; DeHart-Davis & Pandey, 2005; Pandey, Coursey, & Moynihan, 2007; Rainey, Pandey, & Bozeman, 1995; Turaga & Bozeman, 2005). Nevertheless, evidence on the association between red tape and participatory attitudes remains inconclusive.

Prior research provides indications on ways in which red tape can effect public officials' willingness to engage with the public. On the one hand, red tape's compliance burden could reduce public officials' willingness to engage with the public by increasing the procedural costs associated with public participation decision-making. According to the *calculus of participation* approach (Sjoberg, Mellon, and Peixoto 2017, also: Irvin and

Stansbury 2004; Moynihan 2003), officials favor public participation when its benefits exceed its costs. Because public participation could increase the procedural costs of the decision-making process, public officials who perceive higher levels of compliance burden can be expected to be less favorable toward including the public in the decision-making process. On the other hand, red tape's lack of functionality could increase officials' willingness to engage with the public by providing an incentive to change the decision-making process (Moon & Bretschneider, 2002; Pandey & Bretschneider, 1997). Officials' who perceive their rules and regulations to be without function could be expected to be more positive toward public participation as a means of more effective decision-making.

Up to now, the effects of red tape on public officials' attitudes toward public participation have not been systematically examined. The studies that did include red tape, did so either as a covariate or a control (Liao & Schachter, 2018; Yang & Pandey, 2011). Therefore, the current research can be improved in a number of ways. First, the relationship between red tape and public participation has not been substantially grounded in theory. Though statistically significant effects have been measured, we mostly lack the conceptual understanding to interpret those effects. Second, the studies that examined the effect of red tape on officials' attitudes toward public participation use single-item red tape constructs, focusing mainly on how red tape burdens officials. This one-dimensional focus is a well-known bias in red tape research (Bozeman & Feeney, 2011; Van Loon, Leisink, Knies, & Brewer, 2016). New research should go beyond this practice and examine more complex, multi-dimensional red tape conceptualizations as well. Third, existing research is predominantly based on data from the United States or South-Korea. Comparative research from other parts of the world, with different research traditions, is needed to enrich our understanding of both red tape and public participation.

This study aims to fill these gaps in knowledge by studying red tape's relationship with public officials attitudes toward public participation using the job-centered red tape approach developed by Van Loon et al. (2016). Specifically, we examine the association between job centered red tape perceptions (rules' perceived compliance burden and lack of functionality) and public officials' attitudes toward public participation, and whether these effects differ for both dimension. The following research question guides this examination:

*What is the association between public officials' job centered red tape perceptions and their attitudes toward public participation?*

Using survey data from n = 879 Belgian municipal public officials, we conduct a structural equation modelling approach to examine the relationship between rules' compliance burden and rules' lack of functionality with public officials' public participation attitudes without having to aggregate the indicators into composite variables. A model with three latent constructs and ten indicators, corrected for ordinal measurements and non-normally distributed data, is tested. This way, the effects of both job-centered red tape dimensions can be assessed in isolation. In addition, we validate and apply the Van Loon et al. (2016) job-centered red tape perceptions measurement instrument using confirmatory factor analysis.

We first discuss previous research on the effect of red tape on public officials' behavior and attitudes in general, and attitudes toward public participation in particular. We use this research to construct three hypotheses about the relation between red tape and participatory attitudes. In the second part, we introduce our data. Both the dependent variable (attitudes about the costs of participation) and the independent variables (rules' compliance burden, rules' lack of functionality, and democratic attitudes) are conceptualized as multi-item constructs. In the third part of the paper, we present our empirical findings resulting

from the preparatory confirmatory factor analysis (CFA) and the structural equation modeling analysis (SEM). We end the paper with a discussion of the results and a conclusion on our research question.

## **Theory and hypotheses**

### **Red Tape**

In its popular understanding, red tape is a symbol that incorporates a multitude of subjectively held feelings about supposedly excessive, repetitive, and meaningless rules and procedures, in a gargantuan, impersonal bureaucracy (Bozeman, 1993; Bozeman & Feeney, 2011; Goodsell, 2003). Conceptualizing red tape independent of this distinctively negative conception is complicated. In line with its popular understanding, Bozeman and Feeney (2011), argue red tape should be conceptualized as an organizational pathology in which possible ‘beneficial effects’ are explicitly rejected.

Building on the Bozeman (2000) definition quoted above, red tape consists of two functional elements: lack of functionality and compliance burden. For rules to qualify as red tape, they have to entail both a compliance burden and a lack of functionality (Bozeman & Feeney, 2011; Van Loon, 2017; Van Loon et al., 2016). Van Loon et al. (2016) define compliance burden as “the excessive or unnecessary amount of time, energy, or other resources spent in executing a rule” (p. 664), and a lack of functionality as a rule’s inability to serve its intended purpose or achieve its functional objective. These two characteristics distinguish red tape from other, non-pathological, organizational rules and procedures. “The fact that we do not like particular rules does not qualify them as red tape” (Bozeman & Feeney, 2011, p. 49).

Red tape is also a subject-dependent concept (Brewer & Walker, 2010a, 2010b; Kaufmann, Borry, & DeHart-Davis, 2018). Irrespective of the ‘actual’ level of red tape in the organization, individuals experience and interpret rules’ lack of functionality and rules’ compliance burden differently. “The same bureaucratic constrained, in all likelihood, leads to differing assessments regarding the level of red tape by different observers” (Pandey and Kingsley 2000, 783). Importantly, red tape perceptions have real-life consequences on the attitudes and behaviors of officials (Kaufmann et al., 2018; Kaufmann & Feeney, 2014; Scott & Pandey, 2005). Studying how perceptions of red tape influence decision-making processes is therefore meaningful.

Most red tape studies focus on generalized red tape or the compliance burden dimension of red tape and fail to take rules’ lack of functionality into account (Bozeman & Feeney, 2011; Kaufmann et al., 2018; Van Loon et al., 2016). This can cause an empirical mismatch because these studies conceptually include both dimensions, but empirically exclude rules’ lack of functionality. This omission causes bias and fails to take into account that rules’ lack of functionality could affect officials’ behaviors and attitudes differently. Disentangling the effects of rules’ lack of functionality and rules’ compliance burden could mediate this hiatus. This study does exactly that.

### **The effects of red tape on public officials’ behavior**

The conceptualization of red tape as a pathology stresses the detrimental effects of red tape on the performance of the organization and its employees (Bozeman & Feeney, 2011; Van Loon, 2017). Prior research examined the effects of red tape on public officials’ attitudes and behaviors.

From a psychological perspective, red tape was found to increase officials’ alienation from the public organization (Buchanan 1975; DeHart-Davis and Pandey 2005; Pandey and

Kingsley 2000; Pandey and Welch 2005; Stazyk, Pandey, and Wright 2011). Workplace alienation is a general cognitive state of psychological disconnection from work, encompassing feelings of powerless, normless, and self-estrangement (DeHart-Davis & Pandey, 2005) or meaninglessness. As such, alienation has been found to promote withdrawal behaviors like absenteeism, turnover, and reduced effort. According to DeHart-Davis and Pandey (2005), encounters with pointless yet burdensome rules triggers feelings of powerlessness and meaninglessness, thereby reducing officials' organizational commitment, job involvement, and job satisfaction. Others argued that red tape promotes a disdain for rules and procedures that could spill-over into a disdain for the organization as a whole, which in turn reduces officials' affective organizational commitment (Stazyk et al., 2011). Red tape is also identified as a determinant of organizational turnover (Quratulain & Khan, 2013). According to Giauque et al. (2012) red tape is the single most important predictor of Swiss municipal public officials' intention to resign (resigned satisfaction). Others related red tap to public employees' insecurity, mistrust, and pessimism (Rainey et al., 1995).

Red tape has also been associated with reduced public service motivation (PSM) (Campbell & Im, 2016; Giauque et al., 2012; Moynihan & Pandey, 2007; Scott & Pandey, 2005). Examining the effects of bureaucratic structures on public officials' public service motivation, Moynihan and Pandey (2007) found red tape to be negatively associated with U.S. public managers' PSM and attraction to policy making, but not to their public interest or civic duty. Alternatively, Scott and Pandey (2005) found that managers' level of PSM was negatively associated with their perceptions of red tape. They argued that higher levels of PSM could enhance the likelihood that officials' look beyond red tape and see rules as legitimate in their intent and purpose. Furthermore, they stated that individuals with higher levels of PSM are more determined to pursue (their understanding of) the public interest, even in the face of burdensome and ineffective rules and procedures. Interestingly, previous



research observed a positive association between officials' PSM and their support for public participation (Campbell & Im, 2016; Coursey, Yang, & Pandey, 2012; Huang & Feeney, 2013).

### **Red tape and participatory attitudes**

Empirical evidence on the effects of red tape on perceptions of public participation is scarce. Whereas Li and Feeney (2014) found that red tape had no effect on the city managers' procurement of communication technologies needed for public participation, others found a clear negative effect of red tape on attitudes toward public participation (Yang & Pandey, 2011). According to Yang and Pandey (2011), red tape prevents officials from disseminating relevant information to citizens, makes public officials' risk averse, and constrains their discretion in involving citizens. Using a representative cross-sectional sample of 1,097 city managers from the U.S., Yang & Pandey (2011) test whether red tape is negatively associated with better participation outcomes. Their results confirm their initial hypothesis and show a negative association between bureaucratic red tape and managers' perceptions of good participatory outcomes.

Similarly, Campbell and Im (2016) observed a negative association between officials' assessment of red tape and their participation efficacy. According to their results, the higher managers' assess the complexity and tediousness of the administrative rules and procedures to be, the lower their beliefs in the benefits of active public participation. Finally, Liao and Schachter (2018) showed that red tape perceptions have diverging effects on different attitudes toward public participation. In a survey study among  $n = 319$  municipal managers from New Jersey and Pennsylvania, they found that while the perceived level of burdensome rules and procedures in the organization increased officials' perceptions of the cost of public participation, it did not significantly affect their perceptions of its benefits (Liao & Schachter,

2018). Their research indicates that even though red tape might increase the perceived costs of participation, it does not necessarily reduce the perceived usefulness of participation.

### **Differential effects of red tape**

Previous research showed that red tape could have different effects in different contexts.

Brewer and Walker (2010b) found that different types of red tape influenced the performances of English local governments differently. Similarly, Coursey and Pandey (2007) found that respondents from the public personnel department and the budgeting department experienced more red tape than respondents from other organizational units.

Research is less clear on whether the different functional dimensions of red tape – compliance burden and lack of functionality – have different effects in similar contexts as well. One study that did examine the differentiated effects of rules' compliance burden and rules' lack of effectiveness is Van Loon's (2017) study on the effect of job-centered red tape on organizational performance. She found that independently, rules' compliance burden and rules' lack of functionality significant affect organizational performance, but when controlled for each other, rules' compliance burden is no longer significant. According to Van Loon (2017), rules' lack of functionality explained most of the variation in the overall organizational performance. In all, previous research seems to indicate that rules' compliance burden and rules' lack of functionality could have different effects.

In this study, we apply these insights to public officials' attitudes toward public participation. We expect that rules' compliance burden and rules' lack of functionality influence public officials' attitudes toward public participation differently. This question is especially interesting in light of the predominance of the single-item red tape measurements used in many other studies (Bozeman & Feeney, 2011; Feeney, 2012; Van Loon et al., 2016). For example Feeney (2012) wondered whether general red tape-based studies are able to

entirely capture the fact that some rules, although burdensome, have an important purpose. This reflects Kaufman's (1977) observation that burdensome rules may well have been put in place as a democratic safeguard. We test whether rules' compliance burden and rules' lack of functionality influence participatory differently:

*H<sub>1</sub>: Rules' compliance burden and rules' lack of effectiveness have differentiated effects on public officials' attitudes toward public participation.*

### **Increasing the costs of participation**

From one perspective, red tape could reduce officials' attitudes toward public participation by increasing the costs of decision-making (Liao & Schachter, 2018; Moynihan, 2003).

Officials' who experience more red tape are less likely to increase the decision-making costs further by engaging the public. Previous research identified a number of ways in which public participation increases decision-making costs. Questioning whether citizen participation is worth the effort, Irvin and Stansbury (2004) distinguished between decision-process costs and decision-outcome costs. Decision-process costs represent the additional costs in time and resources needed to reach a decision, as well as the costs associated with a possible backfire that could increase public hostility toward government. Participation related decision-outcome costs are associated with officials' loss of control over the decision-making process, the possibility of bad or suboptimal decisions that are politically impossible to reverse, and the reduction of available resources for other plans and policies. Similarly, Moynihan (2003) classified the procedural costs associated with participation as direct administrative costs (opportunity costs, time, resources), self-interested costs (officials' loss of control administrative power and autonomy), decision process costs (excessive delays,

inability to reach consensus), and decision outcome costs (suboptimal, less timely, less-rational outcomes). All these costs act as a multiplier on non-participation related decision-making costs.

Moynihan (2003) further argued that public managers' support for public participation depends on the extent to which participation produces a net instrumental value for the managers. He argued that managers use their decision-making discretion to shape participation to minimize administrative costs and maximize instrumental benefits given the organizational circumstances. Similarly, Sjoberg, Mellon, and Peixoto (2017) formulated the *calculus of participation* as a framework to explain administrative responsiveness toward public participation. They argued that administrative responsiveness toward public participation is the product of citizens' likelihood to participate, the utility benefit of participation, and the costs of participation; formally represented as:

$$R = P \times B - C$$

In which R is the administrative responsiveness to participation, P is the citizens' probability to participate, B is the utility benefit of participation, and C is the cost of participation in time and money (Sjoberg et al., 2017). From these models, we deduce that the higher the cost of participation, the harder it becomes for benefits to offset these costs, and consequently the less positive officials' attitudes toward public participation will be.

Red tape in general, and compliance burden in particular, increase the procedural costs of participation. They reduce the likelihood that utility benefits will offset the overall costs of participation and thereby reducing officials' positive attitudes toward public participation. The *calculus of participation* argument most strongly relates to rules' compliance burden: respondents who perceive the rules' compliance burden to be high are less likely to have positive attitudes about public participation as a way of decision-making

than officials who experience less red tape. Based on this logic, we formulated the following hypothesis:

*H<sub>2</sub>: The higher rules' perceived compliance burden, the more negative public officials' are about public participation.*

### **Incentive for change**

From another perspective, red tape as an organizational pathology could act as an incentive for change (DeHart-Davis, 2007; Moon & Bretschneider, 2002). Officials' frustration with the organizations' rules and procedures that entail a compliance burden without serving a functional objective can stimulate them to seek alternative arrangements. For example, when public officials' believe that rules are ineffective in representing the public's interests, they could feel incentivized to search for ways to include the public directly as a means to effectively represent these views after all.

Previous research has established a positive relation between organizational red tape and organizational innovation (Moon & Bretschneider, 2002; Pandey & Bretschneider, 1997). Moon and Bretschneider (2002), conceptualized red tape as a transaction cost. They used an organizational perspective to argue that it can be rational for an organization to instigate innovation when the innovation-related costs are equal or less than the transaction costs associated with the pathology the innovation aims to remedy (e.g., red tape). In fact, Moon and Bretschneider (2002) found a positive association between top managers' perceptions of organizational red tape and their organizations' information technology innovativeness. Alternatively, in a study among  $n = 645$  municipal employees in the U.S., DeHart-Davis (2007) found that red tape increased rule bending behavior. She argued that

rule-bending tendencies could act as a healthy response to organizational pathologies. When existing decision-making procedures do not address citizens' concerns effectively, officials' might feel motivated to engage the public directly. This incentive for change perspective is most strongly related to rules' perceived lack of functionality. The higher rules' perceived lack of functionality, the more willing public officials' are to engage the public in administrative decision-making. To test this perspective, we formulated the following hypothesis:

*H<sub>3</sub>: The higher rules' perceived lack of functionality, the more positive public officials' are about public participation.*

## **Data and method**

### **Measures**

The dependent (endogenous) and independent (exogenous) variables are measured as multi-item latent constructs. To optimize high construct validity, the indicators used in this study were adopted from instruments piloted, implemented, and validated in other research before.

### **Dependent variable**

Public officials' attitudes toward public participation are measured on a latent construct using four indicator variables. These indicators include measures of officials' perceptions of the benefits and costs of public participation identified in the literature (Irvin & Stansbury, 2004; Moynihan, 2003; Yang & Pandey, 2011). We interpreted the benefits of participation as the improvement of the decision-making process by the inclusion of new ideas (x7), and whether the organization would have reached the same decisions without citizen participation (x9;

reverse coded). The relative costs to the decision-making process were interpreted as the effort it takes to include citizens (x8; reverse coded) and whether respondents believe the value of public participation to be overrated (x10; reverse coded). These indicators were adapted from Yang and Pandey's (2011) Citizen Participation Outcome scale, and Yang and Callahan's (2007) Responsiveness to Participatory Values scale.

In practice, respondents were asked to assess four statements about public participation: (1) *Citizen participation improves the decision process by bringing in new ideas*, (2) *Involving citizens in [administrative] decision-making processes takes more effort than it is worth* (reverse worded), (3) *In most instances, the administration would have come to the same decision without citizen input* (reverse worded), and (4) *The value of public participation is overrated* (reverse worded). The question order was fully randomized and answers were provided on a seven-point scale ranging from *totally disagree* (1) to *totally agree* (7). Items were recoded in positive direction, with higher scores indicating more positive attitudes toward public participation. With a Cronbach's alpha of  $\alpha = .693$  the internal consistency among these four indicators is sufficient.

### **Independent variables**

Public officials' perceptions of rules' compliance burden and rules' lack of functionality were measured using the original Van Loon, Leisink, Knies, and Brewer (2016) job-centered red tape measurement instrument. The job-centered red tape instrument can be distinguished from other red tape measurement instruments in three principle ways. First, instead of focusing primarily on red tape's compliance burden, job-centered red tape explicitly includes both rules' compliance burden *and* rules' lack of functionality (emphasis in the original). Second, whereas most measurement instruments ask respondents to assess the amount of red tape in their organization, this instrument requests respondents to assess the red tape in their

own job activities. The validity of individual red tape assessments was expected to increase when narrowing the scope of the inquiry to those rules that employees have direct knowledge and experience of, instead of those they perceive in the organization as a whole. Third, other instruments ask respondents to assess red tape in a specific management subsystem (e.g., personnel, budget and procurement, communication). Instead, the job-centered red tape is applicable to all job domains and includes all tasks that employees are asked to perform (Van Loon et al., 2016). As a consequence, job-centered red tape can be defined as the: “rules that employees perceive as burdensome and not helpful in achieving the rules’ functional objective in their respective job” (Van Loon et al., 2016, p. 663).

The instrument contains two latent constructs – lack of functionality and compliance burden – with three indicators each. The lack of functionality construct represents a rule’s quality when it is not achieving its intended purpose. The compliance burden construct represents the excessive and/or unnecessary time, energy, or other resources needed to execute rules. The lack of functionality construct was measured using three items. Respondents were asked whether the rules with which they had to comply in their core activities: (1) *have a clear function for my job activities* (x1; reverse worded), (2) *contribute to the goal of my job activities* (x2; reverse worded), and (3) *help me do my job well* (x3; reverse worded). The rules’ compliance burden construct was measured using three items as well. Respondents were asked whether the rules with which they have to comply in their core activities: (1) *cause much pressure at work* (x4), (2) *take a lot of time to comply with* (x5), and (3) *cause much delay* (x6). Question order was randomized and all responses were provided on a seven-point scale ranging from *totally disagree* (1) to *totally agree* (7). The internal consistency among the indicators of both instruments was good: the Cronbach’s alpha for the lack of functionality construct was  $\alpha = .871$ , and for the compliance burden construct  $\alpha = .821$ .



*Tabel 1. Measured items*

<b>Indicator</b>	<b>Questions</b>
<b>x1</b>	The rules with which I have to comply in my core activities have a clear function for my job activities (r.w)
<b>x2</b>	The rules with which I have to comply in my core activities contribute to the goal of my job activities (r.w)
<b>x3</b>	The rules with which I have to comply in my core activities help me do my job well (r.w)
<b>x4</b>	The rules with which I have to comply in my core activities cause much pressure at work
<b>x5</b>	The rules with which I have to comply in my core activities take a lot of time to comply with
<b>x6</b>	The rules with which I have to comply in my core activities cause much delay
<b>x7</b>	Public participation improves the decision process by bringing in new ideas
<b>x8</b>	Involving the public in administrative decision-making processes takes more effort than it is worth (r.w)
<b>x9</b>	In most instances, the administration would have come to the same decision without citizen input (r.w)
<b>x10</b>	The value of public participation is overrated (r.w)

r.w. = reverse worded

### **Method of analysis**

We modelled the effects of rules' lack of functionality and rules' compliance burden on public officials' attitudes toward public participation using a structural equation modelling (SEM) approach (Brown, 2015; Kline, 2016; Rosseel, 2018). The SEM analysis allows us to model manifest relations between latent constructs without aggregating the construct indicators into compound variables. A SEM analysis consists of two components, a measurement model and a structural model. The measurement model is used to determine the relations between the latent constructs and their indicator variables. The structural model is

used to examine dependencies between endogenous and exogenous variables. In our model, rules' lack of functionality and rules' compliance burden are exogenous, and public officials' attitudes toward public participation construct is endogenous. The measurement model and the structural model are estimated simultaneously, preventing a multiple-testing bias when estimating all structural relations in the analysis.

Because the ordinal-worded answer categories violate the normality assumption, we used a weighted least square mean and variance adjusted (WLSMV) estimator for parameter estimation (Brown, 2015; Rosseel, 2018). The WLSMV estimator uses diagonally weighted least squares (DWLS) to estimate the model parameters and the full weight matrix to compute robust standard errors and a mean- and variance adjusted test statistics (using the scale-shifted approach). As such, WLSMV does not assume normally distributed data and provides the best option for modelling ordered data (Brown, 2015). The analyses are conducted using the *Lavaan* (Latent Variable Analysis) package (Rosseel 2018; Rosseel et al. 2018 [version 0.3-6]) in the statistical computing environment R (version 3.4.4) (Lafaye de Micheaux, Drouilhet, & Liqueur, 2013).

### **Assessing goodness-of-fit**

Model fit is assessed in terms of absolute and comparative fit (Brown, 2015; Kline, 2016; West, Taylor, & Wei, 2012). Each index provides information on a different part of the statistical fit of the model (Brown, 2015). Absolute fit indices assess how well the model's predicted variance-covariance matrix ( $\Sigma$ ) is statistically similar to the sample variance-covariance matrix ( $S$ ). We use two absolute fit indices: the standardized root mean square residual (SRMS) and the root mean square error of approximation (RMSEA). The SRMS measures the average discrepancy between the correlations observed in the input matrix and the correlations predicted by the model. Values range between 0,0 and 1,0, with lower scores

indicating better model fit. Overall, SRMS-values below  $SRMS < 0,1$  indicate good model fit. The RMSEA is a parsimony corrected absolute fit index that indicates the extent to which a model fits reasonably well in the population. The parsimony correction takes place by including a discrepancy in model-fit parameter for each degree of freedom. As such, the measure corrects for model complexity and, as a population index, is relatively insensitive to sample size. RMSEA scores range between 0,0 and infinity but rarely accede 1,0, with scores below  $RMSEA < 0,1$  indicating good fit (Brown, 2015; West et al., 2012).

Comparative fit indices indicate the fit between a modelled solution to a baseline – or “null” – model in which all covariances among the input indicators are fixed to zero. We examine two relative fit indices: the Comparative Fit Index (CFI) and the Tucker-Lewis index (TLI). The CFI compares the covariance matrix of the model-specification with the covariance matrix of the baseline-model, corrected for sample size. Generally, the cut-off value for a good model fit is  $CFI > ,90$ . The TLI-measure compares the covariance matrix of the specified model with the covariance matrix of the baseline-model, corrected for model complexity (parsimony-correction). Though TLI scores can fall outside 0,0 and 1,0, values above  $TLI > ,90$  are assessed to indicate good model fit (Brown, 2015).

### **Sampling and data gathering**

Data were collected using an online survey among public officials’ employed at the municipality of Antwerp in February 2018. The population of interest consists of public officials’ tasked with drafting and implementing policies at a citywide level. The population was defined horizontally without focusing on specific policy domains or administrative departments. The sampling frame was identified using administrative grades, with all official’s with grade B (at least a Bachelor’s degree) or grade A (at least a Master’s degree) as eligible respondents. The sampling frame was compiled in collaboration with

representatives from the municipality, who provided a list with contact details of all eligible subjects at the municipality. Because of the limited size of the sampling frame ( $N = 2,128$ ) we decided to conduct a total sampling strategy (a census) and invite every eligible person to participate. A total of 881 completed surveys were received, a response rate of 41.4%. Due to missing data, the effective sample contained  $n = 879$  respondents. Respondents' mean age was 42 years old. 58.1% of them were women. The majority of respondents attained administrative grade A (57.8%) indicating a high level of education among respondents.

The survey was administered using the online survey software Qualtrics (Qualtrics, 2005). Each subject in the sampling frame received an invitation, informing them about the purpose and objective of the study, and containing an unique link to the survey instrument. To increase the participation rate non-responders received up to two emails reminding them to participate up to three weeks after the initial invitation was sent. The survey items were presented in two separate batteries; job-centered red tape perceptions first, public participation attitudes last. The question order of these items was fully randomized in order to prevent habituation and response sets and the batteries were separated by an unrelated response-interruption questionnaire in order to increase temporal and proximal distance and reduce common source bias (Podsakoff, MacKenzie, & Podsakoff, 2012). Survey access was restricted to subjects who provided their informed consent to participate, in accordance with the European Union's General Data Protection Regulation (GDPR) (European Union, 2016). The institutional ethics committee approved the survey design and content.

## **Results**

### **Validating the job-centered red tape perceptions measure.**

Before we assess the effects of rules' lack of functionality and rules' compliance burden on public officials' attitudes toward public participation, we evaluate the fit of the job-centered red tape measurement instrument in our sample (Van Loon et al., 2016). As discussed in the measurement section, the job-centered red tape perceptions instrument consists of two factors (rules' lack of functionality and compliance burden) with three indicators each. The validation was conducted using confirmatory factor analysis in the *Lavaan* package (version 0.3-6) in the statistical software program R (version 3.4.4) (Lafaye de Micheaux et al., 2013; Rosseel et al., 2018).

The measurement model for job-centered red tape is presented in figure 1. Measurement errors were assumed to be uncorrelated and the latent factors were allowed to correlate (Brown, 2015). With 8 degrees of freedom, the model is over-estimated and identifiable. The goodness-of-fit indices suggest that the original two-factor solution by Van Loon et al. (2016) fits the data well: SRMR = .043, RMSEA = .073, and CFI = .940, TLI = .887. These scores are close to the original Van Loon et al. (2016) scores (SRMR = .029, RMSEA = .055, and CFI = .980, TLI = .965). Figure 1 presents the standardized parameter estimates in LISREL notation. All freely estimated standardized parameters are statistically significant at  $p < .001$ . The factor loading estimates shows that the latent constructs are strongly related to their indicators (range of  $R^2$ 's = .72 - .92). Finally, the estimates from the two-factor solution show weak correlation between the rules' lack of functionality construct and the rules' compliance burden construct, indicating strong discriminant validity. The findings appear consistent with the original results by Van Loon et al. (2016).

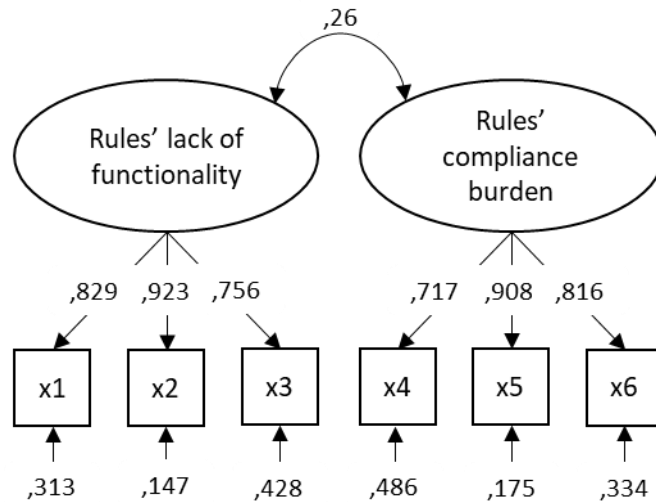


Figure 1. Measurement model Job-centered Red Tape Perceptions (standardized estimates)

### Compliance burden and lack of functionality

The effects of rules' lack of functionality and rules' compliance burden on public officials' public participation attitudes are presented in the measurement and structural model in figure 2. The measurement and structural models contains two exogenous variables and one endogenous variable. The endogenous variable (officials attitudes toward public participation) was ordinal scaled (Brown 2015; Rosseel 2018). Measurement errors are assumed uncorrelated. The model converged normally after 34 iterations, with 49 free parameters and 32 degrees of freedom. The WLSMV estimator is associated with a scaling correction factor = .796 and a shift parameter = 10,165. We interpret the robust model fit indices. According to these fit indices, the model provides a good fit to the data. The absolute fit indices are well below 0,1 (SRMR = ,043 and RMSEA = ,055) and the relative fit indices well above 0,9 (CFI = .961, TLI = .945). The fitted covariance matrix is included in appendix 1.

The measurement part of the model provides information on the fit between the indicator variables and the latent constructs. Because the factor loadings are standardized,

they can be interpreted as the variance in the indicator explained by the latent construct. The standardized and unstandardized coefficient estimates are presented in table 1. Officials' perceptions about rules' lack of functionality are most strongly associated with the extent to which rules are perceived to contribute to the goal of rule activities. The construct explains .92 of the variance in the indicator. Followed by the relative clarity about the extent to which those rules contribute to their job activities and the extent to which the rules help respondents do their job well. Officials' perceptions of rules' compliance burden are associated most with the perceptions of the time it takes respondents to comply with the rules, followed by the extent to which following those rules cause a lot of delay and the extent to which those rules cause pressure at work. Finally, officials' attitudes toward public participation are influenced most by whether or not respondents believe the value of participation to be overrated, followed by their opinion on the effort it takes to involve citizens, whether participation improves the decision-making process by bringing in new idea's, and finally the difficulty it takes to reach consensus and closure in the decision-making process when the public is involved.

*Table 1. Standardized and Unstandardized Coefficients for the measurement model*

Indicator	Latent construct	Standardized		Unstandardized		Sig.
		$\beta$	S.E.	B	S.E.	
<b>x1</b>	Rules' lack of functionality	,834	,033	1	-	<.001
<b>x2</b>	Rules' lack of functionality	,920	,035	1,170	,051	<.001
<b>x3</b>	Rules' lack of functionality	,754	,036	1,043	,055	<.001
<b>x4</b>	Rules' compliance burden	,682	,039	1	-	<.001
<b>x5</b>	Rules' compliance burden	,885	,042	1,386	,079	<.001
<b>x6</b>	Rules' compliance burden	,865	,045	1,329	,095	<.001
<b>x7</b>	Public participation attitudes	,565	,023	1	-	<.001
<b>x8</b>	Public participation attitudes	,546	,024	0,972	,052	<.001
<b>x9</b>	Public participation attitudes	,716	,021	1,274	,064	<.001
<b>x10</b>	Public participation attitudes	,783	,017	1,394	,061	<.001

Interestingly, respondents attitudes toward public participation diverge relatively strongly, indicating that public officials hold different opinions about public participation that do not easily aggregate into a consistent attitude toward the participation of citizens in the decision making process.

The effects of rules' lack of functionality and rules' compliance burden on public officials' attitudes toward public participation are derived from the structural part of the model presented in figure 2. First, supporting hypothesis 1, we find that rules' lack of functionality and rules' compliance burden have different effects on public officials' public participation attitudes. Second, we hypothesized (H<sub>2</sub>) that officials' perceptions of rules' compliance burden are negatively associated with public officials' attitudes toward public participation. The results provide support for this hypothesis. When controlled for officials' perceptions of rules' lack of functionality, officials' perceptions of rules' compliance burden are negatively associated with public officials' attitudes toward public participation ( $\beta = -101$ ;  $p = .012$ ). Third, we hypothesized that officials' perceptions of rules' lack of functionality are positively associated with public officials' attitudes toward public participation (H<sub>3</sub>). The results provide support for this hypothesis as well. When controlled for officials' perceptions of rules' compliance burden, officials' perceptions of rules' lack of functionality is positively associated with public officials' attitudes toward public participation ( $\beta = .091$ ,  $p = .014$ ). In total, public officials perceptions' of rules' lack of functionality and rules' compliance burden account for about  $R^2 = .014$  of the variance in public officials' public participation attitudes. Indicating that, though significantly related to public officials' public participation attitudes, job-centered red tape perceptions are not its most important determinant.



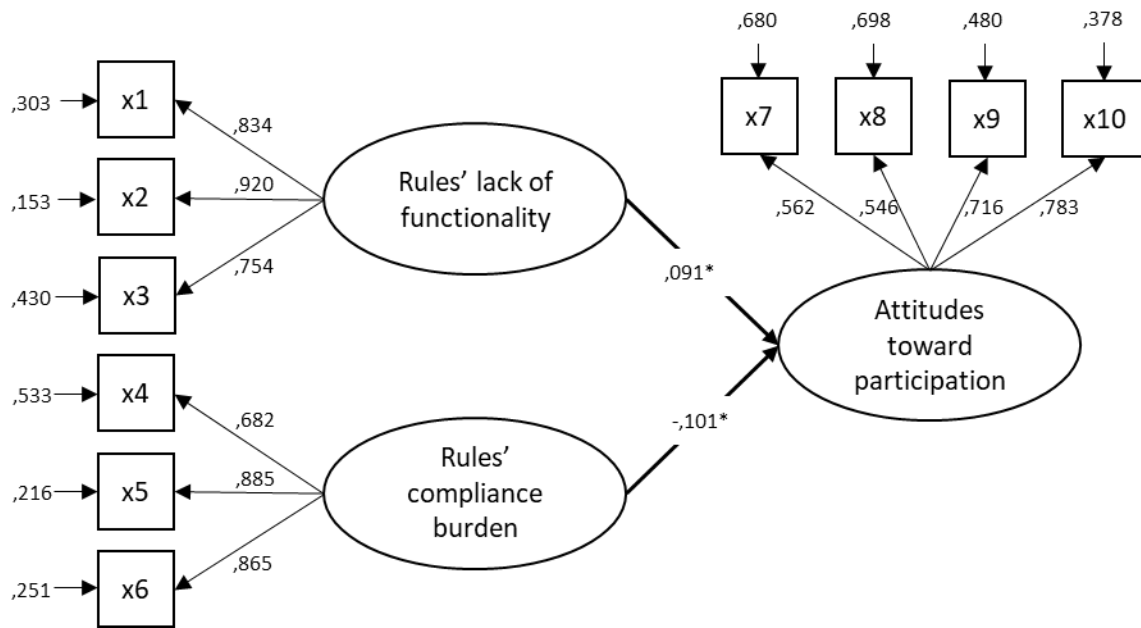


Figure 2. Results for the structural equations model: SRMR = ,04; RMSEA = ,055; CFI = ,96; TLI = ,95; degrees of freedom = 32. (\* = p <.05)

## Discussion

The main aim of this study was to provide insight in the relation between red tape and public officials' attitudes toward public participation by disentangling the effects of rules' lack of functionality and rules' compliance burden. As the results showed, perceptions of rules' compliance burden were found to be negatively associated with attitudes toward public participation, and perceptions of rules' lack of effectiveness were found to be positively associated with officials' attitudes toward public participation. With these results, this study contributes both to the literature on the determinants of public officials attitudes toward public participation (Ianniello et al., 2018; Liao & Schachter, 2018; Yang & Pandey, 2011) and to our understanding of the effects of red tape on public officials attitudes and behaviors (Bozeman and Feeney 2011; DeHart-Davis and Pandey 2005; Pandey and Kingsley 2000; Rainey, Pandey, and Bozeman 1995). From this study, it appears that red tape is a multidimensional concept that cannot validly be captured by single-item conceptualizations and is more complex than its popular understanding would imply.

The results partially support previous research. The results provide partial support to Yang and Pandey (2011) study, who found that managers' evaluations of positive public participation outcomes are negatively associated with red tape, defined as burdensome administrative rules and procedures that have negative effects on the organization's performance. Similarly, our results provide partial support for Liao and Schachter (2018), who find that the perceived level of burdensome rules and procedures is negatively associated with the perceived costliness of citizen participation, but not related to perceived citizen contributions. Crucially, in both studies red tape was defined in terms of compliance burdens, failing to take into account the effects of rules' lack of effectiveness. This oversight is not limited to research studying the relationship between red tape and public participation, but is prevalent in most red tape research. Furthermore, this observation is particularly salient in that rules' lack of functionality can have different effects on officials' attitudes, as was the case in this study. Disentangling the effects of red tape's two functional components can lead to the conclusion that both types of perceptions are produced by different causal mechanisms and that aggregating the two dimensions, or simply ignoring one of them, leads to bias.

In addition, the results put into doubt whether red tape plays an important role in public officials' attitudes toward public participation. The effect sizes of rules' lack of functionality and rules' compliance burden were modest. Combined, rules' lack of functionality and rules' compliance burden explain about 1,4% of the variance in officials' attitudes toward public participation in our sample. Subsequently, red tape could play a modest role in any theoretical model explaining officials' attitudes toward public participation.

In this study, we found public officials' attitudes toward public participation hard to scale.

Thus far, the literature has been hard pressed to identify a coherent set of public participation

attitudes that can be unequivocally supported empirically. The attitudes that have been identified do not necessarily show strong internal consistency. The instrument used in this study showed adequate internal consistency and fit, but further research is needed in order to identify and validate a widely applicable instrument capable of measuring officials' attitudes about public participation reliably and consistently.

The findings of this study should be interpreted in light of its limitations. First, in examining officials' job-centered red tape perceptions we did not distinguish between administrative subdomains. Previous studies found that employees at the personnel or finances departments experienced more red tape than officials employed at other departments. Such differences were attributed to the fact that employees have a better understanding of the function and purpose of the rules and procedures related to their own direct task area, compared to rules about employment and finances (Brewer and Walker 2010a; Coursey and Pandey 2007; Van Loon et al. 2016). However, in our study, specifying administrative subdomains was not necessary because respondents were asked to indicate their perceived level of red tape in their daily job activities. Thereby appealing to the same causal argument as is made in the studies that do distinguish administrative subdomain.

Second, since the dependent and independent variables were measured with the same survey instrument, common source bias may be an issue. Though some argue that common source bias in public administration research is exaggerated (George & Pandey, 2017), we took several precautions to minimize possible inflated correlations and order effects. Following the recommendations by Podsakoff, MacKenzie, and Podsakoff (2012) we increased the temporal and proximal distance between survey measures using unrelated response-interruption survey questions between the dependent and independent variables. In addition, we used reverse worded questions for some of the survey items and fully

randomized the question order. Other recommended design features aimed at reducing common source biases are not without their own analytical problems. For example, using different response scales or different sources of data for the dependent and independent variables Podsakoff, MacKenzie, and Podsakoff (2012) reduce comparability and require statistical transformations later on during the analysis. Future research could shed light on the effects of these design elements.

Third, our results in the structural part of the model are dependent on the specifications in the measurement part of the model. Models other than the one suggested here may also provide valid information on the relationship between red tape and public officials' attitudes toward public participation. It is possible that other studies will develop additional models that fits as well, or better, than ours does. For example, other researchers may find a more parsimonious measurement instrument for public officials' attitudes toward public participation that results in a different structural equations solution as well. A related concern is possible omitted variables bias, which cannot be ruled out because of the cross-sectional nature of our research design. Though we have tried to take the relevant variables discussed in other research into account, it remains to be seen whether omitted variables mediate or observed relationships.

Fourth, this study's results are based on a sample of A and B grade public officials' from the municipality of Antwerp. Generalizability is always most appropriate to similar organizational contexts in similar administrative traditions. The results for this case are not necessarily valid for other cases as well. Similarly, we are not able to infer causality based on cross-sectional data. Although the path-analysis model underlying SEM goes a long way in imposing causality using exogenous and endogenously defined variables, conclusions in terms of cause and effect are better served using experimentally or longitudinally collected data. A possible avenue for future research would be to use an experimental design and

manipulate rules' lack of functionality and rules' compliance burden in order to determine their effects on public officials' attitudes toward public participation. An inspiring example is provided in the Tummers et al. (2016) experiment into the effects of rules' compliance burden on citizens' satisfaction with government.

### **Conclusion**

The effects of red tape on public officials' attitudes toward public participation are modest and diverge. On the one hand, this study showed that public officials' perceptions of rules' lack of functionality and attitudes toward public participation are positively associated. This could indicate that officials are incentivized to search for alternative decision-making procedures when they experience rules to be ineffective. Practically, when officials think that existing rules and procedures do not serve the interests and concerns of citizens, they could feel incentivized to involve citizens directly. On the other hand, we found that public officials' perceptions of rules' compliance burden and attitudes toward public participation are negatively associated. Officials' who experience the rules and regulations to be burdensome already, are less likely to have positive attitudes about public participation. Indicating that they perceive the increase of procedural costs by involving the public directly is a burden they could do without.

These findings support a more nuanced interpretation of the effects of red tape on public officials' attitudes and behaviors. Previous studies have focused most on compliance burden and paid little attention to rules lack of effectiveness. The finding that both dimensions can affect officials' attitudes differently could cast doubt on the findings of some other red tape studies. Additionally, the job-centered red tape measurement instrument, partly validated by Van Loon (2017) was successfully used to measure officials' perceptions of red

tape. This study can therefore also be seen as a validation of the original Van Loon et al. (2016) instrument.

Red tape, though commonly defined as an organizational pathology, can both hamper and stimulate officials' appetite to participate with the public directly. A multifaceted understanding of red tape serves practitioners and researchers alike.

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Appendix 1.

**Fitted covariance matrix**

	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10
x1	0,999									
x2	,167	0,999								
x3	,629	,694	0,999							
x4	,144	,159	,130	0,999						
x5	,187	,206	,169	,604	0,999					
x6	,183	,202	,165	,590	0,765	0,999				
x7	,030	,034	,028	-,030	-,039	-,038	1,000			
x8	,030	,033	,027	-,029	-,038	-,037	,311	1,000		
x9	,039	,043	,035	-,038	-,049	-,048	,408	,396	1,000	
x10	,042	,047	,038	-,042	-,054	-,053	,446	,434	,569	1,000

**Fitted means**

x1	x2	x3	x4	x5	x6	x7	x8	x9	x10
0	0	0	0	0	0	0	0	0	0