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Civil servants' commitment to change: a factor of success regarding the reform of public budgeting and accounting in the State of Brandenburg?

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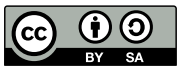

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Johannes Niklas Hotz

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Kurzfassung

Diese Studie untersucht die Reform des öffentlichen Haushalts- und Rechnungswesens (Doppik) in Brandenburg. Zum einen ist das Ziel, die Schlüsselvariablen zu identifizieren, welche die Reformbereitschaft der Mitarbeiter determinieren. Zum anderen soll untersucht werden, inwieweit die Reformbereitschaft der Mitarbeiter den Umsetzungsprozess der Reform beeinflusst. Die Ergebnisse dieser Studie zeigen, dass Reformbereitschaft der Mitarbeiter gegenüber der Doppik vor allem durch den Inhalt der Reform, aber auch durch den Kontext der Reform bestimmt wird. Schließlich zeigt sich für den Fall Brandenburg, dass die Reformbereitschaft der öffentlich Bediensteten einen signifikanten positiven Einfluss auf den wahrgenommenen Erfolg der Reform besitzt. Die Ergebnisse der Studie sind nicht nur von hoher wissenschaftlicher Bedeutung, sondern auch von praktischer Relevanz. Denn die in dieser Studie herausgearbeiteten Handlungsempfehlungen bieten fundierte Ansatzpunkte darüber, welche Schritte notwendig sind, um die Doppik auf lokaler Ebene in Brandenburg langfristig erfolgreich umzusetzen.

Abstract

This study investigates the reform of the public budgeting and accounting system (Doppik) in Brandenburg. On the one hand, this thesis aims to identify the key variables shaping employees' commitment to change and, on the other hand, to examine the extent employees' commitment to change influences the implementation process of the reform. The results of this study show that the commitment of civil servants towards the Doppik is primarily determined by the content, but also by the context of the reform. Moreover, it is revealed for the case of Brandenburg that civil servants' affective commitment to change has a significant positive influence on the perceived success of the reform implementation. The results of the study are not only of high scientific importance, but also of practical relevance. The recommendations developed in this study offer grounded guidelines on how to successfully implement the Doppik on local level in Brandenburg.

Keywords: *Doppik, accrual accounting, public sector reforms, public change management, change commitment*

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List of abbreviations

Affective commitment to change	ACC
Double-entry accounting	Doppik
European Public Sector Accounting Standards	EPSAS
European Union	EU
International Public Sector Accounting Standard	IPSAS
Kommunale Gemeinschaftsstelle für Verwaltungsmanagement	KGSt
Neues kommunales Finanzmanagement	NKF
North Rhine-Westphalia	NRW
Neues Steuerungsmodell	NSM
New Public Management	NPM
United Kingdom	UK
United States of America	USA
Variance Inflation Factor	VIF
Web of Science	WoS

1 Introduction

In Germany, the municipalities achieved a surplus of 4.5 billion euros in 2016. This is the fifth year in a row in which it has been possible to realize a surplus and the best result since 2008. Nevertheless, the mountain of debt at local government level remains at 142 billion euros. Despite the favorable general conditions, fiscal crises are even exacerbating in several places (Boettcher *et al.* 2017, pp. 2–4).

The reasons for the massive debt burden of municipalities in Germany are diverse and complex. One factor identified by several scientists is the traditional cameralistic budgeting and accounting system (cash-accounting). Cameralistic accounting is based on a money consumption concept and reflects only revenues and expenses, however, not the consumption of resources on an accrual basis. This means that only the explicit debts (above all monetary debts) are shown, excluding the implicit debts, such as pension provisions or depreciation. In addition, a consolidation of the financial statements of the core-administration with the outsourced subsidiaries is not implemented in the cameralistic budget and accounting system. As a result, the debts are not fully captured and are thus displayed too low. This in turn can lead to financial and budgetary mismanagement. A reform process was introduced at municipal level in Germany to overcome these weaknesses. The reform was initiated by the Conference of Ministers of the Interior in 2003 and proposed to replace the traditional cameralistic system by the double-entry accounting (Doppik) or the extended cameralistic (Weiß *et al.* 2014, pp. 4–5; Burth 2015, pp. 16–17).

Subsequently, a new law came into force in Brandenburg in January 2008, which introduced the Doppik at local level. After a period of transition, all municipalities in Brandenburg were obliged to implement their budgeting and accounting in accordance with the new law by 2011 and to submit an opening balance sheet. A consolidated financial statement should also be submitted starting from 2013 (Erdmann *et al.* 2014, pp. 29–31). The response by the Ministry of the Interior on the 26th of March 2018 to a minor inquiry by a member of the State Parliament reveals that the implementation process of the Doppik in Brandenburg is far from complete. There are considerable shortcomings in the preparation of opening balance sheets and annual financial statements. 34 out of the 467 municipalities, cities and municipal federations have not yet submitted an opening balance sheet and 164 have not yet submitted any annual financial statements. Especially the municipal federations, which have to draw up several opening balance sheets and annual statements, are facing major difficulties. The

situation appears to be better for the four urban districts and the 14 rural districts. They were all able to present an opening balance sheet and, with one exception, an annual financial statement (Die Landesregierung Brandenburg 2018). In addition, the EU initiative, which aims to establish EU-wide harmonized accounting procedures in form of the *European Public Sector Accounting Standards* (EPSAS), could require further reforms (Hilgers *et al.* 2017, pp. 8–11).

Against the background of this ongoing reform process and the potential need for further changes, the question of factors of success for the Doppik reform on local level in Brandenburg arises. Many factors can have an impact on a reform process. According to the public change management literature, a crucial factor in successfully implementing change is the attitude of employees towards the reform effort (Ritz *et al.* 2012, p. 161; Kuipers *et al.* 2014, p. 10). In this context, Herold *et al.* (2007, p. 942) state that the employees' acceptance and support is crucial for realizing organizational change. Furthermore, research postulates that underestimating this great influence of employees during the process of change causes many reforms to fail (Hameed *et al.* 2017, 2; Ahmad and Cheng 2018, p. 196). These considerations lead to two underlying research questions:

1. *Which factors determine to which extent the commitment of civil servants towards the reform of the public budgeting and accounting system in Brandenburg?*
2. *Which influence does the civil servants' commitment to the Doppik have on the implementation of the reform?*

It is therefore not only the objective of this thesis to identify the key variables shaping employees' commitment to change, but also to examine to what extent employees' commitment to change influences the implementation process of the reform.

Thus, this paper aims to close a research gap highlighted by Kuipers *et al.* (2014, p. 17). In their influential literature review on management of change in public organizations, the authors identify a lack of research on factors making change successful. Furthermore, little research exists on the factors of success regarding the reform of the public budgeting and accounting system on local level in Germany in general, and for the state of Brandenburg in particular (see Chapter 3.1). Therefore, this research contributes to two fields of study: on the one hand, to the public change management literature and, on the other hand, to the field of study regarding the public budgeting and accounting reform in Germany.

Change in general and factors influencing and determining the willingness of public sector employees to change in particular, are complex subjects. In view of the manifoldness of change, it seems viable to develop this research on a broad interdisciplinary basis. Findings from public change management literature and public policy analysis show that the reform content, the general organizational context, the process of change, but also individual characteristics of change acteurs can play a role in shaping the commitment of employees towards public sector reforms (Tummers *et al.* 2012; van der Voet *et al.* 2016b). These four dimensions of change are considered in order to develop a theoretical model, determining the employees' commitment to change.

By including *green tape* defined as effective organizational rules as an independent variable this research contributes to the green tape literature, which is still in its infancy. Further testing of green tape theory is needed, for example by applying it in different organizational contexts and relating it to different concepts. This study aims to tackle this research gap (DeHart-Davis 2008; DeHart-Davis *et al.* 2015).

To shed some light on the underlying subject of this study, a brief introduction into the public budgeting and accounting system of Germany is given. Afterwards, the state of research is outlined and the relevance of this thesis as well as the research gaps it aims to close are highlighted. Then, the theoretical background is outlined. Hypotheses concerning the research question are derived from theory and a theoretical model is developed. In chapter five, the research design is illustrated, explaining the operationalization, the data collection and the method of analyses. Next, the results of the statistical analyses, conducted by applying two hierarchical regression models, is delineated. In chapter seven, the results are discussed in view of the state of research. Finally, a conclusion is given, emphasizing the implications of the results for future studies and public management practice.

The results of this study show that the commitment of civil servants towards the reform of the public budgeting and accounting system in Brandenburg is most largely determined by the perceived *societal meaningfulness* of the reform. However, also the perceived *intrinsic benefits* and the *subjective norm* have a significant direct influence. Furthermore, it is revealed for the case of Brandenburg that the *affective commitment to change* of civil servants has a significant positive influence on the perceived success of the reform.

2 The public budget and accounting system in Germany

Public budgeting and accounting is concerned with the planning (budget) and documentation of the performance of tasks (accounting) as well as the financial development of local authorities (Budäus and Hilgers 2011, p. 419). The accounting system embodies the conceptual basis and accounting style of public budgeting and accounting. In the German context, a distinction must be made between the cameralistic systems (cash-accounting) and the systems based on the Doppik[1] (accrual-accounting). For each of the systems there are two subsystems, which are displayed in the table below (Budäus and Hilgers 2011, pp. 420–21; Burth and Hilgers 2014, p. 532; Schauer 2016, pp. 206–07).

Cameralistic Systems (Cash-Accounting)	**Systems based on the Doppik** (Accrual-Accounting)
○ Classical Cameralistic (K*lassische Kameralistik*)	○ Three-Component-Accounting (*Drei-Komponenten-Rechnung*)
○ Extended Cameralistic (E*rweiterte Kameralistik)*	○ Integrated Compound Accounting (*Integrierte Verbundsrechnung*)

Table 1: Accounting systems in Germany
Source: Schauer 2016, pp. 206–07

The classical cameralistic is originally purely payment and input-oriented, with the function of planning and recording revenues and expenses and formally balancing them (Budäus *et al.* 2014b, p. 18). In the extended cameralistic, the revenue and expense statement remains the leading system. However, it is supplemented by cost and activity accounting, which is not integrated, but requires an independent additional calculation (Budäus and Hilgers 2011, pp. 420–21).

The Doppik consists of three integrated modules (three-component-accounting): the balance sheet, the cash flow statement and the profit and loss account. The balance sheet is formally the basic accounting module. It shows the capital on the assets side. On the liabilities side, the origin of the capital is documented and indicates to what extent capital is financed by equity or debt. The cash flow statement corresponds to the traditional cameralistic accounting and shows the revenues and expenses. However, it is no longer the leading calculation, but is integrated into the resource consumption concept. The third module is the profit and loss account. It represents a time

[1] Doppik refers to the new accrual budgeting and accounting system in German authorities and is based on the double-entry bookkeeping (Budäus *et al.* 2014a, p. 154).

period calculation and records resource consumption as outgo and resource increases as income (Budäus *et al.* 2014b, pp. 32–34; Schauer 2016, pp. 202–05).

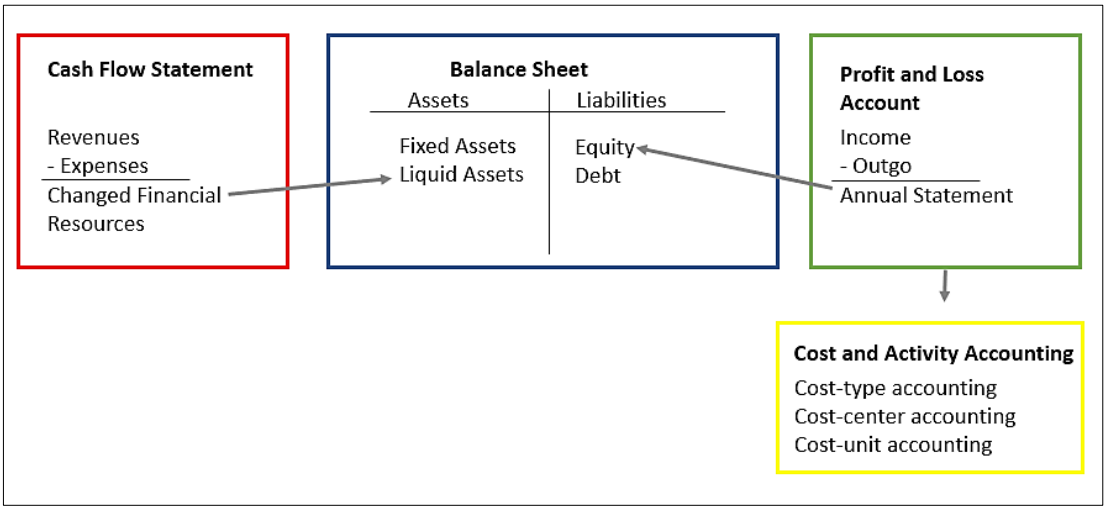


Figure 1: Integrated Compound Accounting
Source: Budäus et al. 2014b, p.36

In the case of the integrated compound accounting (Figure 1), cost and activity accounting adds a fourth component to the three above mentioned components. In detail, the cost and activity accounting is linked to the profit and loss accounting, and can be understood as its detailed continuation (Hilgers 2011, p. 431).

The accounting system must be distinguished from the financial reporting. Financial reporting concerns the rules for the presentation, valuation and consolidation of the balance sheet, cash flow statement and profit and loss account. Taking international developments into account, three different potential reference models exist for financial reporting in the German public sector: The *German Commercial Code*, the *International Public Sector Accounting Standard* (IPSAS) and the EPSAS[2] (Budäus and Hilgers 2011, p. 424; Schauer 2016, pp. 214–15). Despite the existence of international reference models, the German authorities rely in general on the *German Commercial Code* (Häfner *et al.* 2014, p. 183; Schauer 2016, p. 207).

The elements of the Doppik are summarized in the annual financial statements of the public authority. The balance sheet, the core of Doppik, only exists in the annual financial statements (Kußmaul and Henkes 2010, p. 32). One of the objectives of Doppik is to create the basis for a consolidated financial statement of the public authority. The annual financial statements of the core-administration and the annual financial

[2] Following the financial crisis in Southern Europe, the European Commission and Eurostat have issued joint recommendations for the development of harmonised accrual accounting standards for EU Member States, in line with IPSAS (Lampe *et al.* 2015, p. 4350).

statements of its subsidiaries[3] are to be combined into one consolidated financial statement. The aim of these consolidated financial statements is to ensure real transparency of the financial situation (Häfner *et al.* 2014, p. 179).

It was expected that the introduction of the Doppik leads to an increased intergenerational equity of the budget economy through disclosure of resource consumption, to increases in efficiency and effectiveness of administrations through output/outcome-oriented management and to increased transparency of the municipal financial situation (Burth 2015, pp. 128–29).

A comparison between the different federal states of Germany shows that not all of them oblige their municipalities to comply with the Doppik. In Bavaria, Thuringia and Schleswig-Holstein, the transition is only mentioned as an option (Lampe *et al.* 2015, pp. 4351–52). Even where the Doppik has been established as a uniform accounting system, the detailed financial reporting varies from state to state,[4] as there were no guiding rules set (Budäus *et al.* 2014a, pp. 153–54). Also the speed, at which annual financial statements for the core-administrations as well as consolidated financial statements are introduced, differ[5] (Schauer 2016, p. 206).

Roughly 12,500 municipalities in Germany are changing or have changed from the cameralistic to the Doppik. This represents one of the biggest administrative reforms in Germany in recent years and can be seen as an outflow of the concept of *New Public Management* (NPM). The German framework of the NPM is called *Neues Steuerungsmodell* (NSM) (Burth and Hilgers 2014, p. 532; Burth 2015, p. 128).

[3] Subsidiary organizations are those organizations which are not directly linked to the core administration, but over which a controlling influence can be exercised (Häfner *et al.* 2014, p. 179).
[4] Regarding the federal states there is also no uniform system. Most states have opted for the extended cameralistic accounting (besides Hamburg, Bremen, Hesse and North Rhine-Westphalia who practice the Doppik). The German national Government is also practicing the extended cameralistic accounting (Burth and Hilgers 2014, p. 532).
[5] For example, the local authorities in North Rhine-Westphalia had to present a consolidated financial statement starting from 2010, whereas in Baden-Württemberg the due date is 2022 (Schauer 2016, p. 206).

3 State of research

For this study two fields of research are relevant, which are outlined in the following two sub-chapters: On the one hand, there is the research concerning the reform of the local budget and accounting system in Germany. On the other hand, there is the public change management literature regarding the explanatory factors for civil servants' commitment to change. Finally, in view of the state of research the relevance of this study is emphasized, and research gaps are identified.

3.1 Scientific debate regarding the Doppik introduction

Table 2 shows the state of research concerning the introduction of the Doppik in Germany. Relevant studies from the previous ten years are examined. However, only quantitative or mixed-method research is considered in order to present representative results. In total, eleven studies were selected, of which six were conducted Germany wide and the other five focused on a certain federal state (three on North Rhine-Westphalia, one on Hamburg and one on Saxony-Anhalt).

Out of the eleven studies, seven can be considered as an evaluation of the introduction of the Doppik. The studies of Wenner (2008), Articus and Wagner (2011), Burth and Hilgers (2012), Weiß *et al.* (2014) and Hilgers *et al.* (2017) conclude that the benefits of accrual accounting are higher than the costs. According to Burth and Hilgers (2012), for the treasures on local level the Doppik leads to higher generational equity, better information, better decisions and more transparency. In Saxony-Anhalt, especially the clarity of resource consumption is seen positive (Weiß *et al.* 2014). Negatively seen are the high costs of the reform as well as the difficulties to compare municipalities across federal states. Furthermore, the use of the resulting information for controlling purposes seems to be low and the treasurers see the EPSAS initiative, introduced by the European Commission and Eurostat, sceptical (Hilgers *et al.* 2017). Moreover, recording assets in context of the opening balance sheet, the employees' motivation and acceptance of the Doppik as well as inadequate software and legal provisions are listed as challenges in the change process (Burth and Hilgers 2012; Weiß *et al.* 2014).

Author	Research interest	Case	Results
Wenner (2008)	Evaluation of the state of implementation of accrual accounting on municipal level	German municipalities were asked about the status of the Doppik introduction in summer 2007, 971 municipalities participated. The study was primarily addressed to the members of the KGSt in Germany.	Benefits of accrual accounting are seen in average as rather high. The highest estimated benefit from the Doppik are found in large cities with more than 200,000 inhabitants.
Articus & Wagner (2011)	To obtain comprehensive and broad-based information with regard to the new budget and accounting system	Addressed to the 211 direct member cities of the KGSt (including 111 urban districts including the city states of Berlin, Bremen and Hamburg). The study was carried out in a three-stage process from April to June 2010.	The Doppik has yet to arrive in member cities (implementation of product budget and opening balance not yet completed). To this point, the authors see no reason for fundamental criticism of the reform.
Bogumil et al. (2011)	Elaboration of a first empirical interim balance of the NKF for municipalities in NRW and comparison with the evaluation results of the NSM	Between May and June 2010, the Mayors and chairmen of the SPD and CDU parliamentary groups were questioned in all municipalities with more than 20,000 inhabitants in NRW (n=213).	In total, there is little agreement between mayors and chairmen of the parliamentary groups that the budget in course of the NKF reform is easier to understand and more transparent.
Burth & Hilgers (2012)	Descriptive presentation of the perceived added value of the Doppik at local level	By means of a survey (autumn 2011) the treasurers of all districts, cities and municipalities with a population of 20,000 or more were contacted. Of the 1,006 questionnaires sent out, 423 were returned.	Intergenerational equity (+), information situation (+), decisions (+), transparency (+), net benefits (+), performance comparison (-), costs (-), asset valuation (?), employee motivation (?), software (?)
Weiß (2014)	Evaluation of the status of the Doppik introduction at municipal level in Saxony-Anhalt	By means of an online survey and in-depth interviews, all 133 regional authorities in Saxony-Anhalt affected by the introduction of the Doppik system were examined. Mainly answered by managers from the finance department or their employees.	Depiction of resource consumption (+), intergenerational equity (0), transparency (0), management control (-), effort to record assets (?), lack of acceptance of Doppik (meaning of Doppik not discernible) (?), inadequate legal regulations (?)
Burth & Hilgers (2014)	To examine which determinants constitute the perceived benefits of the Doppik introduction in Germany	Same case and data used as by Burth & Hilgers (2012)	It is found that controlling is an important indirect benefit driver. Efficiency, intergenerational equity and transparency are direct benefit drivers.
Lampe et al. (2015)	The goal is to examine whether accrual accounting has a positive effect on local governments' cost efficiency	This study is based on 396 municipalities located in NRW. Each is observed over a 3-year period from 2006 to 2008, resulting in 1188 observations.	The adoption of accrual accounting leads to an increase in cost efficiency in local governments. However, cost efficiency does not increase over time when implementing accrual accounting.
Riemenscheider (2015)	Evaluation of the introduction of the Doppik on local level in North Rhine-Westphalia	2,000 elected representatives from all council members (approx. 15,500) of North Rhine-Westphalian municipalities were contacted by means of a standardized questionnaire. 452 completed questionnaires were returned.	Controlling of municipal tasks (+), transparency of resource consumption (+), economic thinking (+)
Burth & Hilgers (2015)	To examine which determinants constitute the perceived benefits of the Doppik introduction in Germany	On the basis of a survey (May/June 2012) sent to the budget policy spokesmen of the two large district assembly/council factions per municipality of all districts, cities and municipalities with a population of 20,000 or more. Of the 1,006 questionnaires sent out, 608 were returned.	As a result, the improved effectiveness is the most important direct and the increased control possibilities the most important indirect benefit driver of the Doppik. The results also illustrate the need for a harmonization of budgetary law.
Hilgers et al. (2017)	To provide new insights into the application of Doppik in municipal practice	On the basis of a survey (autumn 2016) of the heads of the finance departments (treasurers) of all districts, cities and municipalities with a population of 20,000 or more. 263 responses were collected (response rate 26%).	Treasurers see application of the Doppik positive. Use of information for controlling (-), consolidated financial statement (-), EPSAS initiative (-)
Raupach (2017)	Determination of factors of success for employee support of the Doppik in Hamburg	The study examines the reform of public budgeting and accounting in the city of Hamburg. A survey was carried out, a total of 232 responses were collected.	Collective benefits for the public, intrinsic benefits, support capacity and local project support have a significant positive influence on the employees' intention to support the reform in an overall model.

Table 2: State of research ¬ Scientific debate regarding the Doppik introduction

Legend: (+) = seen positive, (-) = seen negative, (0) = no clear results, (?) = seen as a challenge

Bogumil *et al.* (2011) investigate the federal state of NRW but come to a complete different result and see the reform as a failure. However, this conclusion should be viewed with caution as the reception of this study within the scientific community is critical. Reichard (2011) emphasizes that essential elements of the Doppik reform are not taken into account by Bogumil *et al.* (2011) and therefore, their evaluation is insufficient.

Burth and Hilgers (2014; 2015) criticize that the existing quantitative studies remain descriptive. Their goal is to examine which determinants constitute the perceived benefits of the reform by the treasurers (Burth and Hilgers 2014) and by the fiscal policymakers (Burth and Hilgers 2015) on local level. For the treasures, better controlling options are an important indirect benefit driver, whereas efficiency, intergenerational equity and transparency are direct drivers of benefits. For the fiscal policymakers, improved effectiveness is the most important direct benefit driver and increased control options the most important indirect benefit driver of the Doppik.

However, Raupach (2017) is the only research that investigates the factors influencing the employees' commitment. Nevertheless, the existing studies suggest that the employees' attitude toward the reform is a crucial challenge for the success of the reform (Burth and Hilgers 2012; Weiß *et al.* 2014).

3.2 Explaining civil servants' commitment to change

In this section, the recent literature focusing on the factors influencing the employees' change commitment in the public sector is reviewed. As the goal of this chapter is to outline the current state of research, studies published in the last ten years are examined. The Web of Science (WoS) is screened to identify the pivotal literature.[6] The WoS is one of the most efficient, targeted, comprehensive and widely used databases for scientific literature in English language (Chadegani *et al.* 2013). Nine articles which are relevant regarding the research question were selected. In four of the studies cases of change in the public sector of the Netherlands were examined. The remaining studies focused on the public sector of the USA, the UK, Switzerland, Pakistan and

[6] It has been searched for both terms *change* and *reform*. Moreover, the different terms to describe the employees' change commitment (commitment to change, willingness to change and readiness for change) were also considered. The search was refined by only including findings that account for the category *Public Administration* and only peer-reviewed articles were selected (Kuipers *et al.* 2014, p. 2-3).

Iraq. Of the reforms under consideration, six were induced due to financial austerity. Hence, the goal of most of the reforms was to cut costs (Table 3).

In order to operationalize the employees' attitude towards change, four different dependent variables were used: *change willingness*, *affective commitment to change* (ACC), *readiness for change* and *positive attitude towards change*. Of these independent variables ACC is by far the most applied one (Table 3).

The factors, which were examined regarding their influence on the employees' attitude, are characterized by a broader variety in comparison to the dependent variables. Most often positively related to employees' commitment to change were the variables *information/communication* and *participation* (Wright *et al.* 2013; Giauque 2015, van der Voet 2016; van der Voet *et al.* 2016; Hameed *et al.* 2017). The presence of high quality communication, so that the employees feel well-informed about upcoming changes, and the possibilities to participate in the change seem, thus, to be crucial factors determining employees' attitude towards change. Otherwise, a positive relation with employees' commitment to change was shown for a perceived *high-quality relationship* between the employee and his or her manager (Ritz *et al.* 2012; Giauque 2015). Other variables with a positive influence were employees' *prosocial motivation* (van der Voet *et al.* 2017) or a positive *work-life balance* (Giauque 2015). On the other hand, a high degree of *perceived stress* seems to have a negative relation (Giauque 2015). Furthermore, Wright *et al.* (2013, pp 742-743) suggest that reforms motivated by austerity policy do not have the same support as changes aiming for organizational improvements.

Van der Voet *et al.* 2016 state that leadership is commonly considered as a key factor in creating an affective commitment to change among employees in the private as well as in the public sector. Contrary to their assumption, they could not identify a significant direct relationship between direct supervisors' transformational leadership and employees' ACC. Van der Voet (2016) comes to a similar conclusion but also highlights that leadership positively relates to communication and participation and thus indirectly influences employees' commitment to change.

Author	Case	Independent v.	Dependent v.
Tummers et al. (2012)	Dutch public mental health care professionals were studied, who were implementing a new reimbursement policy.	Content: Societal meaninglessness (-), client meaninglessness (-), personal meaninglessness (-), autonomy (+) Organizational context: Influence during implementation (+), subjective norm (managers (+) & professional colleagues (+) Personality characteristics: Rebelliousness (-), rule obedience (+)	Change willingness
Kroll et al. (2012)	In this work, the data from the study "Verwaltungsführung heute" by Hammerschmid et al. (2010) were used, in which all department heads of the federal and state ministries as well as a sample of managers of subordinate higher authorities in Germany were questioned about their attitudes.	Intrinsic motivation (+), extrinsic motivation (0), employee-oriented management (0), task-oriented management (+), legal studies (-), experience outside the public sector (+), tenure (0), share of management tasks in total working time (-), top hierarchical level (+), Z-department (0), federal administration (0), ministerial administration (0)	Willingness to reform
Ritz et al. (2012)	Employees of a public authority at local level in the UK were studied, whose organization was preparing for an imminent merger with another local authority to reduce costs.	High quality relationship between the employee and his or her manager (+)	ACC
Wright et al. (2013)	Local government employees in south-eastern US were studied, whose organizations were going through restructuring measures in order to cut costs.	Public Service Motivation (only the dimension self-sacrifice (+) had a positive significant influence)	ACC
Giauque (2015)	Middle managers working in Swiss public hospitals were examined, who were confronted with multiple reforms (e.g. financial system reforms, introduction of new managerial practices)	Satisfaction in work relationships with colleagues (+), satisfaction in work relationships with supervisors (+), perceived stress (-), work-life balance (+), professional development (0), training opportunities (0), employee voice and participation (+), compensation (0), job security (0), information/communication (+)	Positive Attitude towards Change
v. d. Voet (2016)	A reform within the City Works Department in Rotterdam (Netherlands) was investigated. As a consequence of economic crisis, the organization is being restructured.	Quality of change communication (+), Degree of participation (+)	ACC
v. d. Voet et al. (2016)	A reform within the City Works Department in Rotterdam (Netherlands) was investigated. As a consequence of economic crisis, the organization is being restructured.	Transformational Leadership (0), Quality of change communication (+), Degree of participation (+)	ACC
v. d. Voet et al. (2017)	This study researches the child welfare reform in the Netherlands (decentralization from national to municipal level, substantial budget cut.). The five major youth care organizations in the two largest city regions in the Netherlands were studied.	Prosocial Motivation (+), Societal Meaningfulness (+), Client Meaningfulness (+)	ACC
Raupach (2017)	The reform of public budgeting and accounting in the city of Hamburg is examined. A survey was carried out, a total of 232 responses were collected.	Central project support (0): (use of promoters, information and communication, training measures) Local project support (+): (support by superiors, support by colleagues, participatory target agreement) Individual capacity to implement (+): (knowledge, behavioral control) Collective benefit for the public (+), Intrinsic benefit (+), Extrinsic benefit (0)	Intention to support reform project
Hameed et al. (2017)	Four Pakistan research and development public sector organizations were studied, which were undergoing major internal restructuring.	Involved communication (+) (direct, as well as moderated by employees' organizational identification) and change recipients' beliefs (+) (the belief in the change, perceived support by colleagues and supervisors as well as perceived societal and personal meaningfulness of the change)	Readiness for change
Ahmad & Cheng (2018)	A reform of cutbacks in and merges of public organizations in the educational area in Kurdistan Iraq was examined.	Content: Perceived change impact (0) Context: Degree of formalization (0), Perceived poor change history in organization (-) Process: High quality change communication (+), Employee participation (+) Leadership: Transformational Leadership of direct supervisors (+)	ACC

Table 3: State of research ¬ Explaining civil servants' commitment to change

Legend: (+) = significant positive relation with commitment to change, (-) = significant negative relation with commitment to change, (0) = no relation found

All these studies focus on single or limited factors which might have an influence on the employees' attitude towards change. In doing so, the complexity of change itself is neglected. Kuipers *et al.* (2014) state in their highly acknowledged literature review on change in public organizations that multiple factors must be considered when studying change. Tummers *et al.* (2012) and Ahmad and Cheng (2018) are the only studies that consider multiple factor explanations. Indeed, Tummers *et al.* (2012) consider three dimensions of change to explain the willingness of public servants to reform: the content dimension, the organizational context and the personal characteristics. In their study change content is the most vital factor in explaining the employees' willingness to implement change. *Societal meaninglessness* has the largest influence among the content factor. Nevertheless, also the individual characteristic and the organizational context do have an effect and should thus be taken into account. Ahmad and Cheng (2018) considered in their study the change content, change context, change process and change leadership. Even though multiple tested variables have no significant relation with ACC, some have (quality change communication and participation as well as transformational leadership).

Regardless of the studies reviewed organizational change is situational: What might count for one country, organization, or culture does not necessary hold in another country (Ahmad and Cheng 2018, p. 197). This is best illustrated by fact that transformational leadership has an influence on the ACC of public employees in Kurdistan (Ahmad and Cheng 2018) but not in the Netherlands (van der Voet *et al.* 2016). Furthermore, employees' attitude towards change are likely to differ depending on what kind of changes are made (Wright *et al.* 2013, p. 738). Therefore, it is essential to include studies, accounting for the German public sector in general as well as for the case of the accounting reform in particular. Two studies are of interest: Kroll *et al.* (2012) examine the determinants for the willingness to reform of executives in ministerial administrations in Germany.[7] Their study suggests that intrinsic motivation, experience outside the public sector and a position at the highest hierarchical level have a significantly positive influence on the general assessment of the respondents regarding the need for reforms.

[7] By willingness to reform, Kroll *et al.* (2012) understand the general assessment of the need for reforms in public administration. This definition cannot fully reflect the concept of willingness to reform, since only the perceived need for reform is measured.

Raupach (2017) is the only study contributing to both research areas. The author examines the factors determining employees' support for the reform of public budgeting and accounting in the city of Hamburg. In the study, all variables examined (Table 3), except for extrinsic benefits, were individually shown to have a positive significant correlation with the intention to support the project. However, when considering an overall model, only the variables intrinsic benefit, collective benefit, local project support and the perceived individual capacity to support do influence the civil servants' intention to support the project.

3.3 Relevance of research and identification of research gaps

The state of research regarding the Doppik introduction shows that there are several studies evaluating the reform. However, most of the studies remain purely descriptive. Only Raupach (2017) has investigated factors determining the successful implementation of the reform. Yet, it has to be criticized that Raupach (2017) does not consider current findings of the change management literature, as he only takes into account the studies by van der Voet *et al.* (2016) and Ritz *et al.* (2012). The present study, on the other hand integrates the current state of research on the Doppik introduction as well as on public change management and thus aims to develop an integrative explanatory model on this basis. Furthermore, the current research mainly focuses on larger municipalities, often more than 20,000 inhabitants and on the heads of treasury. Smaller local authorities and other employees of the financial administration are neglected. Therefore, in this study all financial administrations with all employees of all local authorities of Brandenburg are considered.

The literature review on the factors influencing the employees' attitude towards change in the public sector reveals five aspects relevant for this study:

1. The process related factors *information/communication* and *participation* have throughout the different studies within their different contexts the strongest positive relation with employees' attitudes towards change.
2. Change is situational and factors influencing the employees' commitment depend on the context.
3. Even though quite a few different variables have been tested, there are still many variables that can reasonably be assumed to have an influence on employees' ACC.

4. All studies assume that employees' positive attitude towards change will lead to a successful implementation. However, this theoretical assumption is not further examined.
5. The state of research shows that various individual variables have been individually considered and tested as to how far they influence the attitude of employees to change. However, the literature is short on a broad and systematic description of how the different variables simultaneously affect the attitude of employees towards change. Ahmad and Cheng (2018) as well as Tummers *et al.* (2012) try to close this research gap in their studies. However, the former neglect the change process and the later neglect the personal characteristics of the change recipients. Therefore, both authors only consider three out of four dimensions.

The present study aims to take in to account the five mentioned aspects by creating a model, which integrates the change content, the change context, the change process and the personal characterizes of the change recipients (5). Furthermore, credit is paid to the *information/communication* and *participation* (1) as well as to the situational context of change (2). Thus, the findings of Kroll *et al.* (2012) and Raupach (2017) are integrated. Moreover, *green tape* is added as a new variable (3). Finally, it is considered whether ACC actually influences the success of the reform implementation (4).

4 Theoretical background

In this chapter, the theoretical background of this study is elaborated. In a first step, the dependent variable *commitment to change* is defined and outlined. Afterwards, light is shed on *green tape theory*, as this study is the first one relating *green tape* to employees' change commitment. In a third step, the theoretical model is conceptualized relying on change management theory, public policy research, *green tape theory*, social psychology, as well as findings concerning the German public administration in general and the reform of public budget and accounting in particular. Factors potentially determining employees' commitment to change are identified and their influence on it are theorized. Based on this conceptualization, hypotheses are generated. In the final step of this chapter, with regard to the second research question, employees' commitment to change is connected to the successful implementation of reform.

4.1 Commitment to change

Over the last years it has been widely acknowledged that the employees' commitment is vital for a successful change process within an organization (Armenakis *et al.* 1999; Herscovitch and Meyer 2002; Rafferty and Restubog 2010). In order to investigate employees' attitudes towards public change, scholars have used numerous concepts. While Giauque (2015) measured the attitude towards change by applying his own construct of p*ositive attitude towards change*, Tummers *et al.* (2012) follow the concept of *willingness to change*, which was developed by Metselaar (1997) and roots in the theory of planned behavior (Ajzen 1991). Ajzen states that as "a general rule it is found that when behaviors pose no serious problems of control, they can be predicted from intentions with considerable accuracy" (Ajzen 1991, p. 186). Hence, if someone believes to be in control of their actions, a positive intention to act in a certain way has a major impact on their behavior (Tummers *et al.* 2012, p. 718). *Willingness to change* can be defined as "a positive behavioral intention towards the implementation of modifications in an organization's structure, or work and administrative processes, resulting in efforts from the organization members side to support or enhance the change process" (Metselaar 1997, p. 42).

However, as the literature review in chapter three shows, the most widely used concept in public management literature is *affective commitment to change* (ACC) (Ritz *et al.* 2012; Wright *et al.* 2013; van der Voet 2016; Ahmad and Cheng 2018).

The concept of ACC was developed by Herscovitch and Meyer (2002) and can be defined as a "desire to provide support for a change based on a belief in its inherent benefits" (Herscovitch and Meyer 2002, p. 475). Moreover, this belief "binds an individual to a course of action deemed necessary for the successful implementation of a change initiative" (Herscovitch and Meyer 2002, p. 475).

The concepts of ACC and *willingness to change* are rather similar. However, ACC does not only imply a positive attitude towards change but also emphasizes the inherent belief in the change, which makes it more likely that after the talk, actions will follow (Ahmad and Cheng 2018, p. 199). To put it in the words of Herold *et al.* (2007, p. 943) "change commitment reflects not only positive attitudes toward the change but also alignment with the change, intentions to support it, and a willingness to work on behalf of its successful implementation". Thus, change commitment goes beyond the attitude towards change and "captures the notion of a positive, proactive intent toward change" (Ahmed and Cheng 2018, p. 199).

ACC was chosen as the dependent variable not only due to this but also because it is the most widely used and therefore the best tested construct. Furthermore, affective commitment to change has been connected positively with cooperation and championing of change efforts, with having an impact on the reactions of employees during the entire change process, with lower turnover intentions as well as higher job satisfaction (Rafferty and Restubog 2010, pp. 1314–15; Ahmad and Cheng 2018, p. 199). Shin *et al.* (2015) have shown that an initial ACC is rather stable over time and is a good predictor for later commitment.

4.2 Green tape theory

An extra sub-chapter is dedicated to outline green tape theory, as this is the first study using green tape as an independent variable to explain employees' change commitment. Therefore, a close examination of green tape theory is crucial, in order to have a sophisticated and grounded theoretical derivation of green tape as an independent variable in the following conceptual part. In research on green tape there is only a very limited number of studies, dominated by one author and which were only conducted in the USA (DeHart-Davis 2008; DeHart-Davis 2009; DeHart-Davis et al. 2013; DeHart-Davis et al. 2015). In a first study, green tape theory was defined and tested (DeHart-Davis 2008). Subsequently, green tape has been successfully related to

employees' rule abidance (DeHart-Davis 2009) and job-satisfaction (DeHart-Davis et al. 2015).

Since the 1990s, public management scholars have examined the nature and consequences of ineffective organizational rules, often referred to as red tape (Borry 2015, p. 574). Red tape can be defined as "rules, regulations, and procedures that remain in force and entail a compliance burden, but do not advance the legitimate purposes the rules were intended to serve" (Bozeman 2000, p. 12). There has been a significant and fruitful body of literature on red tape, relating it to negative organizational impacts, as for example reduced services to clients and higher managerial alienation (Scott and Pandey 2000; DeHart-Davis 2008, p. 361; Borry 2015, p. 574). A consequence of the vast research on ineffective organizational rules is the widespread assumption that reducing rules will reduce red tape and thus will induce higher organizational performance. Based on this assumption, one strategy of government reform is to reduce internal public-sector rules to achieve a better running organization. However, this ignores evidence that rules can also have positive social psychological effects for employees (DeHart-Davis 2008, pp. 361–62). Therefore, some scientists propose that the focus in research should be on designing and implementing effective rules (Goodsell 2000; DeHart-Davis 2008, p. 361).

DeHart-Davis is tackling this research gap by identifying a theory of effective organizational rules, which she labels, contrary to red tape, green tape. Green tape or effective organizational rules can be defined as "the extent to which a rule achieves its intended purposes" (DeHart-Davis 2009, p. 901) and is characterized by five attributes:

> "(1) Written requirements, (2) with valid means-ends relationships, which (3) employ optimal control, (4) are consistently applied, and have (5) purposes understood by stakeholders." (DeHart-Davis 2008, p. 362)

It is assumed that the combined presence of all five attributes increases the probability of rule effectiveness. In addition, also each individual attribute itself is expected to contribute to rule performance (DeHart-Davis 2008, p. 362). Furthermore, the attributes of green tape reflect two conditions of effective organizational rules. On the one hand, technical proficiency, which is understood as the inherent capacity of rule design and implementation to reach the goals of the rule. On the other hand, stakeholder cooperation, which refers to the degree of acquiescence of the individuals who must explain, enforce, or comply with rule requirements. Technical proficiency and stakeholder cooperation are seen as "interdependent conditions theoretically required for

organizational rules to achieve their intended purposes" (DeHart-Davis 2009, pp. 901–02). The assumed mechanisms and effects of each attribute are described below:

Element	Mechanism	Effects
Written rules	- Legitimize rule requirements	- Empower rule implementation (technical proficiency) -Facilitate compliance (stakeholder cooperation)
Valid means-ends Relationships	- Provide theoretical blueprint -Convey rule rationality	- Enable effective pursuit of rule objectives (technical proficiency) -Elicit stakeholder cooperation
Optimal control	- Achieves rule objectives without hampering organizational functions - Conveys priority of rule objectives - Communicates trust in stakeholders	- Enables efficient pursuit of rule objectives (technical proficiency) - Elicits stakeholder cooperation - Elicits stakeholder cooperation
Consistent application	- Maximizes the organizational coverage of a rule's requirements - Conveys procedural fairness	- Increases technical proficiency - Elicits stakeholder cooperation
Understood purposes	- Impart meaningfulness on requirements	- Elicit stakeholder cooperation

Table 4*: *Elements, mechanisms and effects of green tape
Source: DeHart-Davis 2008, p. 375; DeHart-Davis 2009, p. 902

However, limitations of the green tape theory must be mentioned: First of all, the inductively developed measures of green tape miss frequent empirical application, in contrast to established measures such as red tape. Secondly, the Cronbach's Alpha for two of the items applied (written and optimal control) are lower than the 0.70 limit, which is typically regarded as an adequate measure. Third, the measures of rule effectiveness and valid means-ends relationships are only operationalized with a single survey item. Therefore, the reliability of these constructs cannot be calculated (DeHart-Davis 2008, pp. 378–79). Nevertheless, the underlying assumptions of green tape theory make a positive relation with employees' ACC possible. This theoretical relationship is outlined in chapter 4.3.2.

4.3 Conceptualization and generation of hypotheses

In order to understand public sector reforms, change management literature has identified four different dimensions that are suggested to affect employees' attitudes towards change and that must be studied by asking six questions:

1. *What* and *why?* (the content of change) focusing on type or substance of change, which may influence employees' ACC.

2. *Where* and *when?* (the organizational context of change) focusing on internal and external conditions of the organization, which may influence employees' ACC.

3. *How?* (the process of the change) focusing on interventions and processes involved in the implementation change, which may influence employees' ACC.
4. *Who?* (the actors of change) focusing on personality and behavior of stakeholders involved in the change, which may influence employees' ACC (van der Voet *et al.* 2016a, p. 81; Ahmad and Cheng 2018, p. 196).

Kuipers *et al.* (2014) and Ahmad and Cheng (2018) add to the list the variable leadership as an independent factor, due to the growing attention on this topic within public management research. However, the role of other actors (especially the characteristics of change recipients) was neglected in these two studies. Moreover, while asking for *who*, also leadership is included and is thus integrated in the *actor of change* dimension.

4.3.1 The content of change

Several concepts exist to classify the content or magnitude of change. Traditionally, it can be classified between radical and incremental change. Others suggest the distinction between adaptive and imposed changes. Whereas adaptive changes arise automatically due to environmental pressures and demands, imposed changes are intentional and must be implemented through the actions of individuals (van der Voet *et al.* 2016a, p. 83). In the literature, it is widely acknowledged that change content related variables have a significant influence on the employees' ACC (Tummers *et al.* 2012; Ahmad and Cheng 2018).

Based on the person-environment fit theory, van der Voet *et al.* (2017) suggest the concept of 'person-change fit'. This implies that the commitment to change depends also on the extent to which the "content of change 'fits' with the norms, values or motivations of change recipients" (van der Voet *et al.* 2017, p. 447).

Therefore, this research considers the *societal meaningfulness* and the *intrinsic benefit* of a reform. As civil servants have often a prosocial motivation (van der Voet *et al.* 2017), a reform which they perceive as beneficial for society will fit to their norms and values and thus leads to a higher change commitment. This assumption is in accordance with the results of Tummers *et al.* (2012), who showed that the *societal meaninglessness* of a reform plays a pivotal role concerning the civil servants' attitude towards change.

Hypothesis 1a: The greater the perceived societal meaningfulness of the reform, the greater the commitment of employees to change.

This also counts for the perceived personal meaningfulness of a reform. However, this relation is less straight forward. The results of Kroll *et al.* (2012) and Raupach (2017) indicate that only the perceived *intrinsic benefit* expected of the reform has a positive relation with the employees' ACC. The perceived extrinsic benefit, on the other hand, appears to be of no relevance for the German public sector context.
Hypothesis 1b: The greater the perceived intrinsic benefit yielding out of the reform, the greater the commitment of employees to change.

4.3.2 The context of change

Context-related factors, considering conditions or circumstances in an organization's internal and external environment, have shown to play a role in the employees' ACC (Ahmad and Cheng 2018, p. 200). Ritz *et al.* (2012), Giauque (2015) and Tummers *et al.* (2012) have revealed that the relationship with colleagues and supervisors and their attitudes towards the upcoming change plays an important role in shaping civil servants' commitment to change.

In order to conceptualize this influence, Tummers *et al.* (2012) consider the work of Ajzen (1991) on *subjective norms*. A *subjective norm* is understood as "the perceived social pressure to perform or not to perform behavior" (Ajzen 1991, p. 188). The more positive a significant group of people is about a behavior, the more likely an individual is to behave accordingly. From the point of view of Tummers *et al.* (2012), the significant groups of people concerning a public administration reform are, on the one hand, the subordinates and colleagues of equal rank and, on the other hand, the supervisors and managers. If the attitude of these groups of people towards the reform is positive, the employees' commitment to the reform is assumed to increase. The following hypothesis is derived from this assumption:
Hypothesis 2a: The stronger the perceived subjective norm towards the change in the organizational environment, the greater the commitment of employees to change.

For a first time, and in this the present study is explorative, it is investigated whether *green tape* – effective organizational rules has a positive relation with employees' ACC. The underlying interrelations of green tape theory, outlined in chapter 4.2, allow this assumption. Accordingly, it is expected that the general perceived *green tape* has

a direct positive effect on the change commitment. First, a high perceived level of *green tape* is theoretically assumed to characterize a well-functioning organization, as *red tape* is put in relation with a badly performing organization (Chapter 4.2). It is assumed that in well-functioning organizations, the employees are generally more likely to support changes. Secondly, when the general level of perceived *green tape* is high, following the assumption of green tape theory, the general level of stakeholder cooperation must also be high (Chapter 4.2). In a cooperative environment, it is expected that employees are more open-minded towards change and thus have a higher ACC. The following hypothesis is derived from these assumptions.

Hypothesis 2b: The greater the general perceived green tape in an organization, the greater the employees' commitment to change.

Implementing change successfully is a process that does not come cheap: A plan and a strategy for change implementation needs to be developed and the need for change communicated. Employees must be trained and restructuring, or reorganizing efforts may require additional personnel. Moreover, a testing and experimenting phase of the reform can make further resource allocation necessary (Fernandez and Rainey 2006, p. 172). According to Fernandez and Rainey (2006), when planned change initiatives have not been provided with sufficient resources, their implementation will be poor and can even lead to negligence of core organizational activities and functions. Furthermore, insufficient resources lead to higher levels of interpersonal stress (Fernandez and Rainey 2006, p. 172). For example, when an employee feels that the upcoming change will demand more work than the existing employees can provide, however, no further recruiting is planned, stress is caused which subsequently leads to lower commitment towards the change.

These theoretical assumptions are in accordance with a circular letter by the Ministry of the Interior of the state of Brandenburg of January 2018, in which delays in the preparation of opening balance sheets and the annual financial statements are admitted. This is justified by the local authorities by a lack of financial resources and long-term illnesses. The resulting delays in the preparation of the opening balance sheets contributed significantly to the fact that the subsequent annual financial statements could not be prepared on time either (Das Ministerium des Innern und für Kommunales des Landes Brandenburg 2018). The following hypothesis is derived from these assumptions:

Hypothesis 2c: The greater the perceived satisfaction with the allocated resources for the reform, the greater the employees' commitment to change.

4.3.3 The process of change

The change processes can be divided into formation/formulation of change and its implementation (By 2005, pp. 373–75). Van der Voet *et al.* (2016b, p. 845) differentiate between an emergent and a planned approach of implementing change. A planned implementation of change implies a top-down programmatic way of reaching change. Emergent implementation of change, on the contrary, is a bottom up process of adaption with an open end. The change under investigation is coming through a reform, thus the formulation of the reform was top-down, initiating a planned implementation.

Throughout the change management literature, communication and provision of information are regarded as a fundamental component for successfully implementing planned organizational change (see Chapter 3.2). Change creates uncertainty, stress as well as anxiety among change recipients and can lead to resistance. To foster cooperation and reduce employees' resistance to change, change agents must provide high-quality change communication that provides accurate, timely, as well as complete information about the change and responds to employees' concerns. In doing so, not only the need for the change is clarified but it also improves employees' understanding of how the change is going to affect them. This reduces stress, anxiety and uncertainty and is thus supposed to improve employees' ACC (Wright *et al.* 2013, p. 740; Hameed *et al.* 2017, 5-6; Ahmad and Cheng 2018, p. 202). These theoretical assumptions are consistent with numerous empirical findings (Table 3) and lead to hypothesis 3a:
Hypothesis 3a: The better the perceived communication/information during the process of the reform, the greater the employees' commitment to change.

Besides the necessity of high-quality change communication, the *participation* of employees is seen as indispensable for organizational changes to succeed. The ability to participate in the planning and implementation of change reduces the uncertainties and fears of employees about how change will affect them, by increasing their belief that their concerns have been heard, respected and considered. As the Doppik reform was planned top down, the *participation* of employees in the formulation phase of the reform is unlikely, as the reform plan was formulated at ministerial level. Nevertheless, the *participation* of employees during the implementation phase is, as indicated in the

state of research, associated with higher levels of employees' ACC (Hameed *et al.* 2017, 5-6; Ahmad and Cheng 2018, p. 202). These assumptions lead to hypothesis 3b:
Hypothesis 3b: The better the perceived participation during the implementation of the reform, the greater the employees' commitment to change.

4.3.4 The actors of change

The actors involved in the change shape the organizational context (internal and external), build and interpret the content as well as act and respond in the implementation process (van der Voet *et al.* 2016a, p. 85). Therefore, it is highly important to consider the personal characteristics of the actors involved in the change separately, as humans make, implement and surround changes.

For this dimension one variable is included which appears to be of a particular relevance in regard to the investigated reform. Kroll *et al.* (2012, p. 76) assume that civil servants who have gained experience outside the administration tend to be more willing to implement reforms. It is assumed that this group of people has already gained experience with modern control instruments in the private sector and thus have fewer reservations. Therefore, the application of the instruments should also appear less abstract and be considered more realistic. This theoretical assumption has proven to hold empirically (see Chapter 3.2) and is even more relevant when considering that the examined reform introduces accounting instruments already used in the private sector for many decades. This results into the following hypothesis:
Hypothesis 4: If civil servants have professional experience in the private sector, then their commitment to change is greater.

The variable leadership, more precisely transformational leadership, is not considered due to the mixed results and ambiguity regarding the effect of this variable, which is displayed in the literature review. It seems that the effect of leadership is rather indirect, moderated through process-related variables as *communication* and *participation* and is thus not considered in this study. Based on the eight hypotheses about the presumed relationships between the independent variables and ACC, the following model emerges:

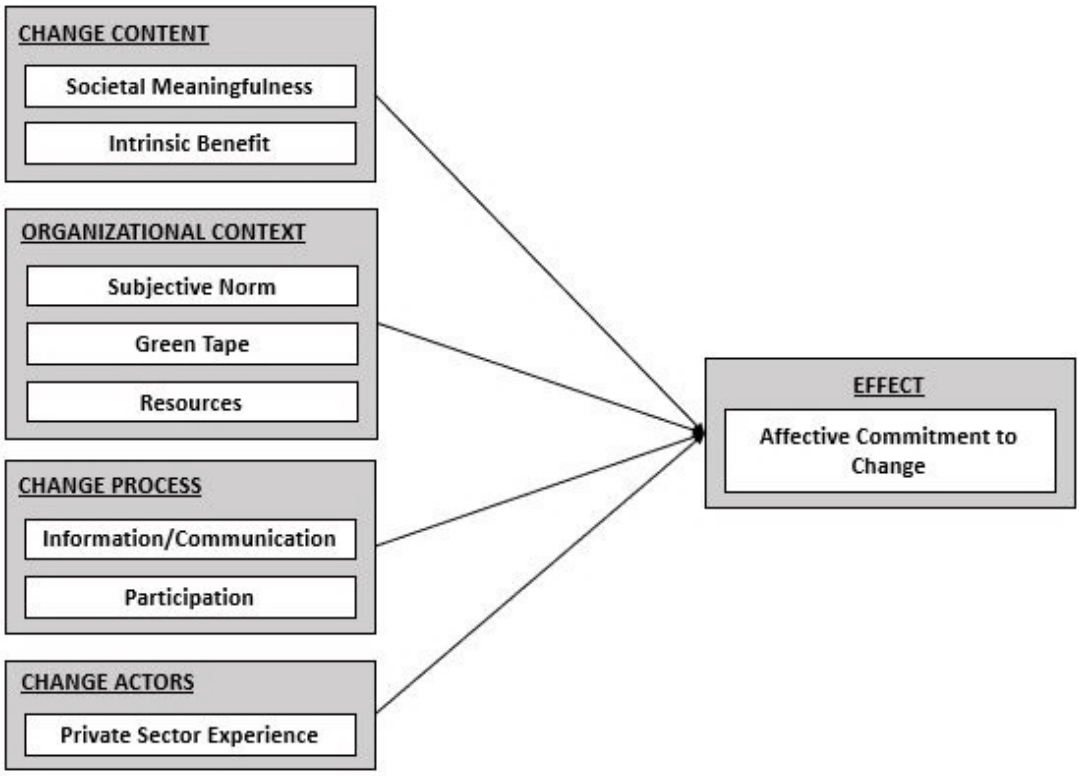


Figure 2: Theoretical model I

4.3.5 Affective commitment and successful reform implementation

In the next step it is important to examine, whether ACC actually has an impact on the implementation of the Doppik. Accordingly, hypothesis five evolves:

Hypothesis 5: The higher civil servants' commitment to change, the higher the perceived success of the reform implementation.

Figure 3: Theoretical model II

As chapter 4.1 shows, it is frequently argued that employees' commitment to change has an influence on reform implementation. However, little effort has been done testing this assumed relationship. Nevertheless, for this assumed theoretical relation (see chapter 3.2) some empirical evidence exists. However, these findings come from private change management. For example, Parish *et al.* (2008, p. 44) have shown that ACC was positively related to a successful change implementation. Moreover, Shum *et al.* (2008, p. 1356) observe in their study that "a committed employee was more likely to accept changes despite being out of the individual's comfort zone".

5 Research design: Strategy and approach

Aim of the study is to identify determinants for civil servants' commitment to change towards the introduction of the Doppik and, in a second step, to see what influence the commitment to change has on the implementation of the reform. Theoretically derived research hypotheses are to be investigated and conclusions drawn, which can be generalized to the entire population involved in the introduction of the Doppik on local level in Brandenburg. Since the study follows a hypothesis testing approach, a quantitative research strategy was chosen (Döring and Bortz 2016, 184, 193). Quantitative approaches are often quantitative in two ways. First, the variables of interest are recorded using numerical parameters (data collection) and operationalized accordingly. Second, the quantitative data is then analyzed using statistical methods (Stykow 2010, p. 163).

In the first section of this research design it is argued, why Brandenburg was selected as the case of interest. Furthermore, the sampling process is displayed. In a second step, the variables under investigation are operationalized. The operationalization determines, which observable indicators are to be used to measure the characteristics of the theoretical model (Vaus 2007, p. 14). It is then explained, why a standardized online survey was selected as the data collection method. Moreover, the procedure for data collection is outlined. Fourthly, it is shown why hierarchical multiple regression was chosen as the analysis method. In the last step, a critical appraisal of the methodological approach is given.

5.1 Case selection and sampling

Since 2011, the application of the Doppik is required on local level in Brandenburg (Erdmann *et al.* 2014, 11, 29-31). However, the reform process has not been completed yet, as many municipalities still do not have an opening balance sheet nor a first annual financial statement. This makes the search for determinants of the civil servants' commitment to change and its influence on the implementation success even more relevant. A comparable study has so far only been carried out in the city state of Hamburg (Raupach 2017). Brandenburg is a good contrast to Hamburg for two reasons: On the one hand, because it is, contrary to Hamburg, a territorial state. On the other hand, it belongs to the newly-formed German states, for which only little research has been done on this topic: The state of research shows that the overall focus lies on West German federal states, while East German federal states are neglected.

The study aims to provide a complete picture of Brandenburg's local level. Therefore, all local authorities with an own administration are of interest. For Brandenburg, these are four urban districts, 14 rural districts, 144 municipalities with an independent administration and 54 municipal federations. The 54 municipal federations are composed of 269 municipalities, which thus share common administrations (Die Landesregierung Brandenburg 2016). This study therefore examines a total of 214 administrative units. Since the implementation of the Doppik affects the budget and accounting system, the changeover was generally carried out by the finance departments and monitored by the audit offices. For this reason, all employees of the finance departments and (if existing) the audit office of the 214 administrations are surveyed for this research.

The target population corresponds to the employees of the finance departments and audit offices of the 214 administrative units involved in the reform. The information about the target population was collected by means of online research. Each administration has its own website, which provides information about the employees and their scope of functions. If the comparison with similar administrations led to the suspicion that not enough employees were listed, these administrations were contacted individually. Ultimately, this approach led to a population of 1134 public servants. This is a frame and not a target population, since it cannot be guaranteed that all objects of interest have been identified. It is likely that there has been a slight under coverage, as not all employees may be listed and not all administrations have responded to the request (Döring and Bortz 2016, p. 295). Nevertheless, due to the twofold approach, it can be assumed that the frame population corresponds to the target population to a very large extent. Subsequently, all members of the frame population were invited by e-mail to participate in the survey. Since not all members of the frame population took part in the survey, the population can be considered as a sample. In this case, it is a self-selection sample, as each individual decides voluntarily whether to participate in the survey. (Döring and Bortz 2016, p. 294).

Of the 1134 individuals in the frame population, 85.5% are female. The majority (69%) works in municipalities with an independent administration, 22.8% in municipal federations, 5.1% in rural districts and 2.8% in urban districts. 385 individuals (34%) have a supervisor position of which 22.3% are male.

5.2 Operationalization

For the operationalization of the variables of interest, this research relies on psychometric-scales, which have already been published in the scientific literature (Table 5). By relying on established as well as tested scales and items, a certain quality regarding reliability and validity is provided. Furthermore, by applying the same operationalization as other studies, comparisons between research results can be made (Döring and Bortz 2016, pp. 268–69). However, the strict application of already tested indicators is only useful, when the specific research context is taken into account (Vaus 2007, pp. 50–51). Therefore, scales are modified when necessary with regard to the research context. For example, the item "the information about the decentralization has been communicated in a timely manner" (van der Voet *et al.* 2017) has been adapted to the research context and was reformulated to "the information about the changes occurred in course of the Doppik-Introduction has been communicated in a timely manner".

The operationalization of the variables of interest is shown in table five. Two aspects must be emphasized: First, for the dependent variable ACC the item "I think that management is making a mistake by introducing this change" of the original scale is excluded, because it implies that the implementation of the Doppik was a voluntary decision by the organization itself. However, this decision was made by the Government of the state of Brandenburg, leaving the local authorities only to implement it.

Secondly, to measure the perceived *societal meaningfulness* of the reform the scale, developed by Tummers *et al.* (2012) and modified by van der Voet *et al.* (2017), is applied. Tummers *et al.* (2012) investigated the *societal meaninglessness*, however, van der Voet *et al.* (2017) successfully reversed the meaning. Furthermore, the term 'goal' was replaced with 'a better financial capacity', 'a higher generational equity' as well as 'a better transparency', which are all fundamental goals of the Doppik introduction (Burth and Hilgers 2014, 2015).

In addition to the variables of the theoretical model, it is tested for classical control variables used in similar studies as age, tenure, higher educational degree and supervisory position (Tummers *et al.* 2012; Wright *et al.* 2013; van der Voet *et al.* 2017; Ahmad and Cheng 2018). It is also controlled for extrinsic benefit, annual financial statement and the kind of administration. Especially municipal federations are of interest, as they face the largest problems with the reform (see Chapter 1).

Besides the simple background variables, which were designed with single items, the other variables were measures with 5-point Likert scales. Likert scales are

psychometric-scales often used in social science to measure the degree to which the participants agree or disagree with a statement (Sullivan and Artino 2013, p. 541; Döring and Bortz 2016, p. 269).

One important issue to test is the internal consistency of the scales, implying that all items of a scale measure the same underlying construct. The *Cronbach's alpha* coefficient is the most commonly used indicator for the internal consistency of a scale and should be at least 0.7 (Pallant 2007, p. 95; Vaus 2007, p. 184). As the scales used in this thesis have been already tested and frequently used, descent scores are expected.

All scales reach the 0.7 threshold for acceptable *Cronbach's alpha* (Table 5). Most scales even score above 0.8 or 0.9 indicating a high internal consistency. Even the scales *subjective norm* and *resources*, which are below 0.8, score with 0.759 and 0.773 well above the 0.7 threshold. The scale *resources* consists of only two items. For scales with a small number of items *Cronbach's alpha* is often low. Therefore, for small scales it is advisable to additionally check the *mean inter-item correlation*, which lies in this case at 0.631, indicating a high internal consistency. The scale *subjective norm* has a *Cronbach's alpha* of 0.759 as well as a *mean inter-item correlation* of 0.442 and has thus the weakest internal consistency. However, these scores are still acceptable (Pallant 2007, p. 98).

Construct	Item	Cronbach's alpha	Mean inter-item corr.	Source
Affective commitment to change	I believe in the value of the introduction of the Doppik.	.933	.738	Herscovitch and Meyer (2002)
	The introduction of the Doppik is a good strategy for this organization.			
	The introduction of the Doppik serves an important purpose.			
	Things would be better without the introduction of the Doppik. [R]			
	The introduction of the Doppik was not necessary. [R]			
Societal meaningfulness	I think that the introduction of the Doppik', in the long term, will lead to an increase in the quality of administrative output.	.872	.631	Tummers et al. (2012), Voet et al. (2017)
	I think that the introduction of the Doppik', in the short-term, will lead to administrations acting more economically.			
	I think that the introduction of the Doppik' has already led to a better transparency.			
	Overall, I think that the introduction of the Doppik' leads a higher generational equity.			
Intrinsic benefit	Specifically for my range of tasks, the changes which result from the introduction of the Doppik ...	.862	.610	Raupach (2017)
	.... offer interesting new insights.			
	.... make my work much more diverse.			
	.... mean more fun at work.			
	.... represent an exciting challenge for me.			
Subjective norm	Please indicate how the following people feel about the introduction of the Doppik:	.759	.442	Metselaar (1997), Tummers et al. (2012)
	My board of directors			
	My manager			
	My professional colleagues and subordinates			
	Others in my organization unit			
Green tape	The extent to which workplace rules are ineffective to effective (from very ineffective to very effective).			DeHart-Davis (2008)
Resources	There is and was enough personnel for the introduction of the Doppik.	.773	.631	Rütten et al. (2011), (2012)
	There are and were sufficient financial resources for the introduction of the Doppik.			
Information/communication	The information about the changes occurred in course of the Doppik-Introduction has been communicated in a timely manner.	.885	.660	Wanberg and Banas (2000), van der Voet et al. (2017)
	The information I have received in course of the Doppik-Introduction has adequately answered my questions about the changes.			
	I have received adequate information about the Doppik-Introduction.			
	The information I have received about the Doppik-Introduction has been useful.			
Participation	I have been able to participate in the implementation of the changes that have occurred in course of the Doppik-Introduction.	.906	.765	Wanberg and Banas (2000), van der Voet et al. (2017)
	I have/had some control over the changes that have been proposed in course of the Doppik-Introduction.			
	I have (or could have) had input into the decisions being made about the Doppik-Introduction.			
Private sector experience	Prior to your work in public administration, were you working in the private sector or in the so-called third sector (non-governmental organizations, non-profit organizations etc.)?			Kroll et al. (2012)
Implementation success	The implementation of the Doppik was an example of a successful reform implementation.	.844	.519	Noble and Mokwa (1999), Parish et al. (2008)
	The organization's implementations effort on this reform was disappointing. [R]			
	The implementation of the Doppik was generally considered a great success in the organization.			
	I personally think the implementation of the Doppik was a success.			
	The implementation of the reform was considered a success in my area.			

Table 5: Operationalization

Legend: [R] = reversed items

5.3 Data collection

Data collection is an essential part of any empirical work and is based on a data collection method by which data material is systematically collected over a certain period of time, to test the research hypotheses (Döring and Bortz 2016, p. 322). Since the aim of this study is to come to generalizable conclusions about the perception and experience of the population of interest, the quantitative questionnaire method is an appropriate approach. The scientific quantitative questionnaire method implies the targeted, systematic and rule-guided generation and recording of self-reported numerical answers by respondents on selected aspects of their experience and behavior in written form. Quantitative questionnaires differ from qualitative ones mainly in terms of the degree of standardization. In the quantitative approach, the questionnaire consists of closed questions, where the answer options are given or only numerical figures have to be indicated (Döring and Bortz 2016, 399,405). The quantitative online questionnaire was chosen because it is particularly efficient. A very large number of individuals can be reached within a short period of time with little costs. In addition, the answers can be easily made anonymous. However, there are also disadvantages: extensive and more complex answers are not possible and the circumstances of data collection cannot be adapted (Creswell 2014, p. 157; Döring and Bortz 2016, pp. 414–15). This study uses the *UP Survey* offered by the *University of Potsdam*, as it provides two major advantages over commercial survey tools: On the one hand, a web-address of the University is provided, which increases the credibility of the study. Hence, it is to be expected that more people will participate in the survey. On the other hand, the collected data is saved on the University's servers. This is not the case with commercial operators. Accordingly, one loses control over the data, which would have to be considered critically for ethical research reasons.

The questionnaire is created using the question items displayed in the operationalization (Table 5). During the creation of the questionnaire, common guidelines for the creation of scientific questionnaires were followed; namely Döring and Bortz (2016, pp. 405–16), Thielsch *et al.* (2012), Vaus (2007) and Malhotra *et al.* (2012). The questionnaire is shown in the appendix A. The survey was designed in German as it is the native language of the respondents. However, most of the items used were originally designed in English. Therefore, a translation process forward-translation by Brislin (1980) was carried out. Following the forward-translation guidelines, the English items were in a first step translated into German by a bilingual person. Next, a second

bilingual person back-translated the questions from German to English. In a final step, any discrepancies in the translation process were discussed and resolved by the two bilingual translators (Regmi *et al.* 2010, p. 20). The forward-translation is shown in the appendix B. One item was corrected after this process.

After designing the questionnaire, a pretest was carried out. The aim of questionnaire pretests is to identify problems of the respondents as well as problems in the survey process and to improve the questionnaire accordingly. There are different pretest techniques. In this study, the qualitative pretest was chosen because the frame population is not large enough for a quantitative approach. In the qualitative pretest, the questionnaire is completed by selected persons from the target population, who then give feedback in form of a qualitative interview. Special attention is paid to the comprehensibility and completeness of the questionnaire (Döring and Bortz 2016, pp. 410–11). The pretest was carried out with a scientific expert (who was active in the administration at the time of the Doppik introduction) and with two members of the target population, who are working in different types of administrations in Brandenburg and on different hierarchical levels. The pretests revealed a few misunderstandings. Accordingly, the survey was restructured and reformulated where necessary.

The data collection was carried out between May 31st and June 30th of 2018. Therefore, this study is a cross-sectional study as data was collected at one point in time (Creswell 2014, p. 157). All people in the frame population were invited to the survey by e-mail. It is also important to enclose an informed consent letter: This informs the interviewees about the project and what role they will play in it. It should also be made clear that participation is completely anonymous and voluntary (Hesse-Biber and Leavy 2011, p. 64). The cover/consent letter is shown in the appendix C. The response curve (Appendix D) flattened after ten days. Therefore, on June 12th a reminder was sent out in order to improve the response rate.

5.4 Data analysis

The data obtained from the survey is analyzed by means of multiple linear regression with regard to the presumed relationships. Multiple linear regression makes it possible to predict a criterion variable based on several predictors. In multiple regression analysis, the criterion variable must be scaled metrically. The predictors must be either metric or dichotomous. The dichotomous variables are usually coded with one and zero (Bortz and Schuster 2010, p. 342). In other words, multiple regression shows

“how much of the variance in your dependent variable can be explained by your independent variables” (Pallant 2007, p. 151).

Overall, a hierarchical multiple linear regression is performed for each research question. Hierarchic multiple regression is a type of simple multiple regression. This method allows to set a fixed order of entering variables to control for effects of covariates and/or to test the effects of certain predictors independently of the influence of others. Therefore, it can be shown how much each predictor adds to the prediction of the dependent variable. It has been designed to test theory-based hypotheses and is thus the ideal technique for this study (Petrocelli 2003, pp. 10–11). The statistical procedures are carried out with SPSS version 23.

5.5 Critical appraisal of the methodological approach

As for all methodological approaches, there are also limitations for this study. First, restrictions must be made concerning the data collection. As described in chapter 5.1, there is a slight under coverage of the frame population, since it cannot be completely assured that the frame population corresponds to the target population. Furthermore, during data collection several errors can occur: a sampling error (the individuals in the sample do not adequately represent the characteristics of the population), a measurement error (questionnaire measures constructs inadequately, or the respondents give untruthful answers) and a nonresponse error (not all individuals in the sample answer). The occurrence of these errors cannot be completely excluded but can be minimized. For example, by using already tested items, by pretesting and by an appealing design of the questionnaire (Ponto 2015, p. 169).

Likert scales were used for the operationalization. There is an ongoing debate whether rating scales in general and Likert scales in particular are suitable for parametric procedures, such as hierarchical multiple regression. From a measurement theory perspective, for parametric techniques variables need to be interval-scaled. Therefore, some scientists claim that the results from rating scales cannot be interpreted meaningfully, since rating scales are strictly speaking ordinal and not interval-scaled. On the other hand, many scientists suggest that parametric inferential statistical methods can produce meaningful results even with data that is not exactly interval-scaled. Therefore, this study follows Döring and Bortz's assumption. Accordingly, there is little reason to abandon parametric methods in research using rating scales as long as this research produces meaningful results (Döring and Bortz 2016, p. 251).

For multiple regressions it is to state that in view of the examined causal effects it can only be spoken of a statistical causality. Another important aspect is the extent to which the statistically generated results are valid. Internal validity is given if the statistical results apply to the population of the respective study. External validity exists if the results can also be transferred to other populations (Stoetzer 2017, p. 236). Problems with internal validity of a research can be minimized by a clear structured design, reducing ambiguity. Threats to external validity are errors in the data collection, which undermine the representativity of the sample (Vaus 2008, pp. 27–29). This can be checked by comparing the characteristics of the sample with the characteristics of the population (Vaus 2007, p. 84).

6 Results

To answer the research questions and to test the theoretical model I and II, this chapter illustrates the results of the two multiple regressions. Furthermore, the results of the open question are presented. The open question, which was asked at the end of the survey, gave respondents the possibility to list challenges they see in course of the implementation of the Doppik. This allows conclusions to be drawn about further factors influencing the ACC. However, to examine the sample and the characteristics of the variables of interest, in the first sub-chapter descriptive statistics are outlined.

6.1 Descriptive statistics

Out of the 1134 contacted civil servants, 227 completed the questionnaire. This equals a response rate of 20%. Of the respondents, 56.4% have a supervisor position, which is 20% more compared to the frame population. Therefore, there is a supervisor bias. However, this result is not surprising. Several employees on lower hierarchical levels communicated that they were not allowed to reply, due to an overall guideline. 72% of the individuals with a supervisor position are female and 25% male, which is rather similar to the frame population's proportion. In total, 19.4% of the respondents were male, which is almost five percent more compared to the frame population. As the share of men in supervisor positions is higher than their share in the total frame population, this result was to be expected. However, the majority of individuals in the sample remains female (75.3%).

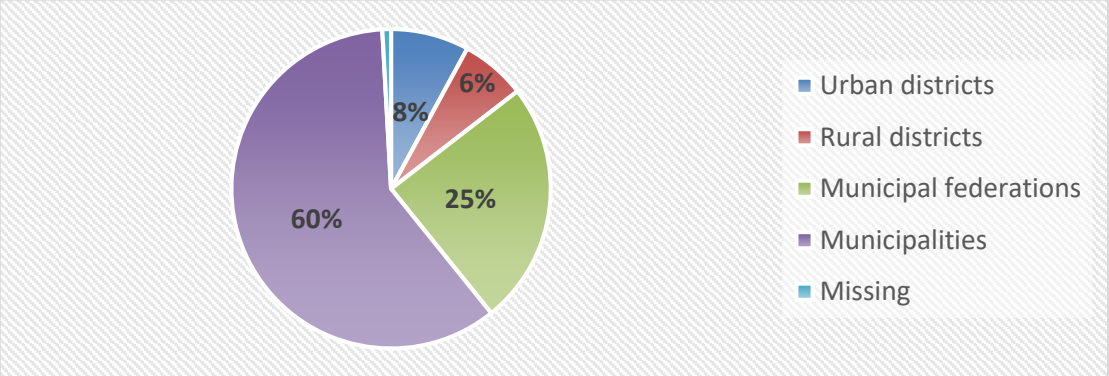


Figure 4: Proportion of types of administration respondents work in

Figure 4 indicates that the proportion of types of administration the respondents work in is rather similar to the frame population. Only the municipalities with an independent administration are slightly underrepresented.

43.6% of the respondents have experience in the private sector, 50.7% have an university of applied sciences degree, 21.6% have completed vocational training and 15%

have a university degree. 55.9% of the participants reported that their administration has a recent annual statement. However, only 15% stated to have a consolidated financial statement. The mean age of the individuals in the sample is 48 years, the youngest participant is 22 years old and the oldest 65 years. 56 years is the most often named age (modus). The mean tenure is 21.3 years, ranging from one to 42 years, while the modus is 25 years.

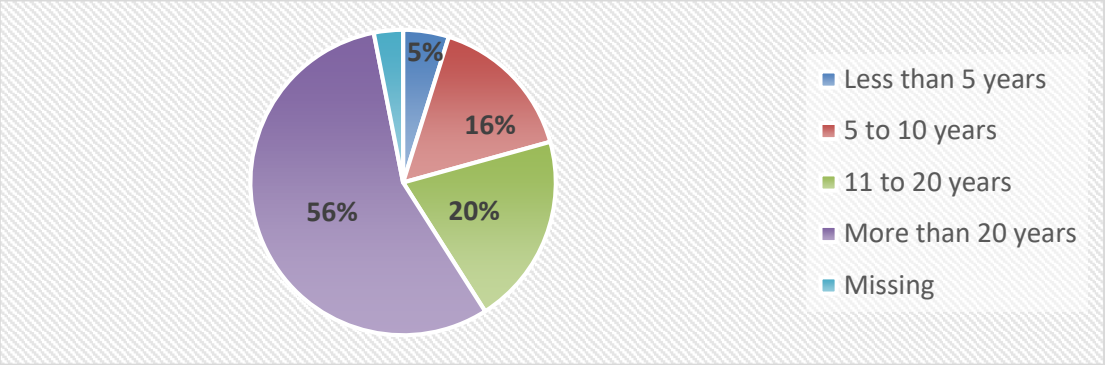


Figure 5: Tenure in groups

Figure 5 shows the years of tenure in groups. It is displayed that the vast majority (56%) work in their administration for more than 20 years. Only five percent work in their administrations for less than five years. This number is important, as the introduction of the Doppik started in 2008 and should have been completed in 2013 (Chapter 1). Accordingly, only respondents who work in their administration for five years or longer should be considered. However, 164 authorities (Chapter 1) have not yet presented an annual financial statement and all administrations face problems with the consolidated financial statement. Hence, the reform process is far from complete. Therefore, the employees that worked less than five years in their organization can also be considered, especially because they only count for five percent of the sample.

	N Valid	N Missing	Mean	Std. Deviation	Minimum	Maximum
Societal meaningfulness	224	3	3.153	.930	1	5
Successful implementation	222	5	3.014	.781	1	5
ACC	224	3	3.326	1.016	1	5
Participation	220	7	3.417	1.129	1	5
Info/com	220	7	3.101	.805	1	5
Subjective norm	225	2	3.150	.722	1	5
Resource	223	4	2.641	1.079	1	5
Intrinsic benefit	223	4	3.306	.890	1	5
Green tape	222	5	4.04	.775	2	5

Table 6: Descriptive statistics of the dependent and independent variables

Table 6 illustrates the means, standard deviations, the minimum and the maximum for the variables of interest of the entire sample. In total, the respondents see the reform

neither successful nor unsuccessful, but rather balanced with a score of 3.01 (scale ranging from 1.0 to 5.0). The *affective commitment to change* is with 3.33 rather high than low. The resource allocation is rated lowest at 2.64. *Green tape* is with 4.04 the variable with the highest mean-score.

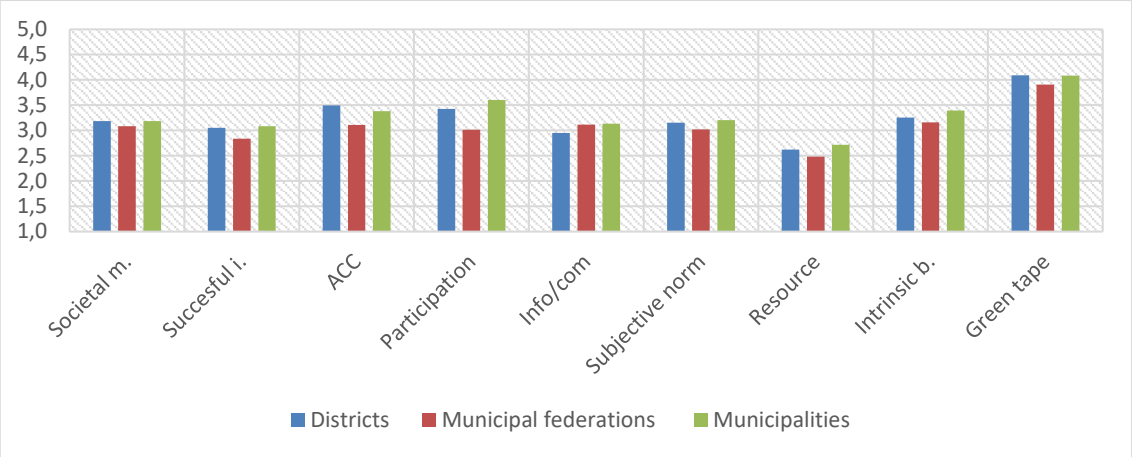


Figure 6: Variables depending on type of administration

Figure 6 displays the variables of interest depending on the kind of administration. The municipal federations have for all but one variable the lowest scores. Their score for the variable *information/communication* is slightly higher than for the municipalities. Throughout the administrations, the participants are not satisfied with the *resource* allocation. The districts as well as the municipalities with an independent administration have for all the variables rather equal values.

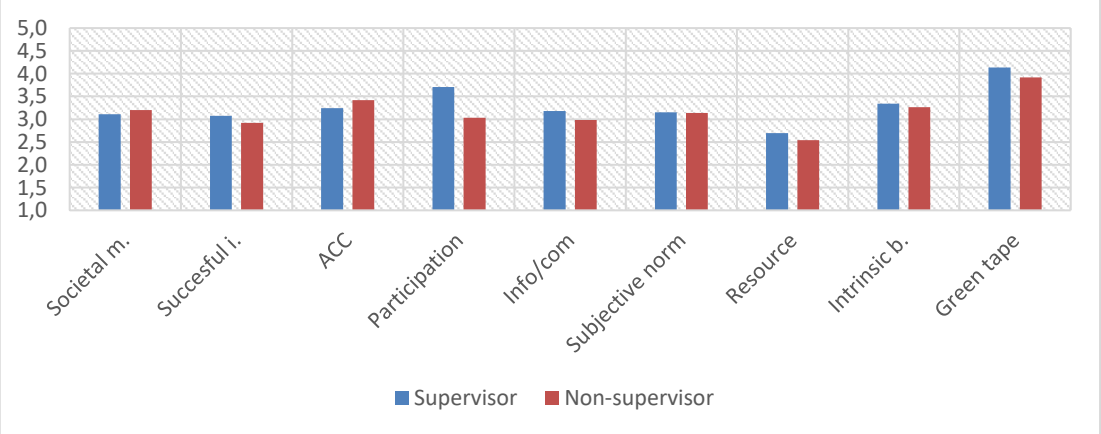


Figure 7: Variables depending on supervisor position

Figure 7 shows the values of the variables in dependence of supervisor positions. Participants in supervisor positions are less committed to the reform and see the *societal meaningfulness* of the reform less high. However, they score higher on *participation*, *information/communication* and *green tape*. Furthermore, they appear to see the implementation of the reform more successful.

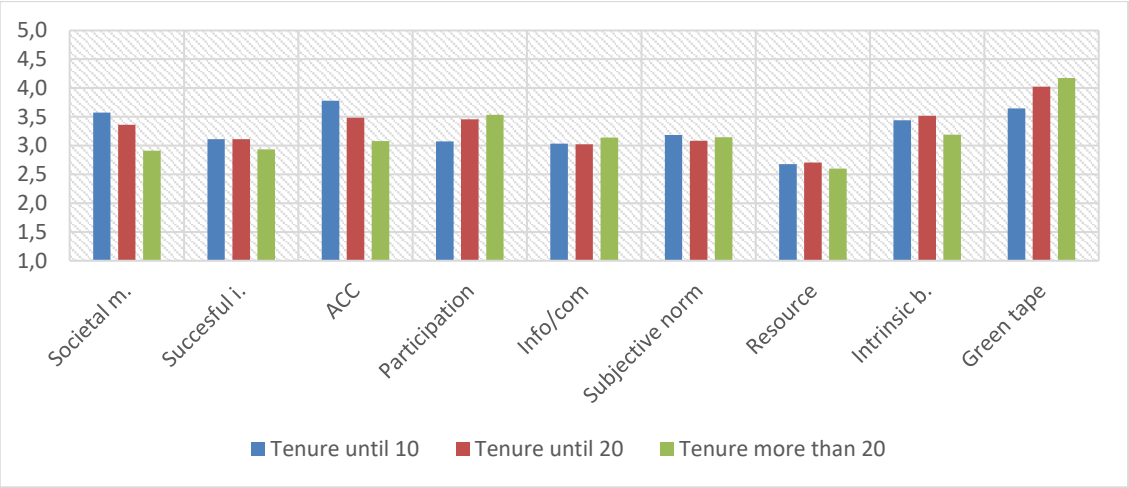


Figure 8: Variables depending on tenure

The effect of tenure on the variables (Figure 8) is similar compared to the effect of age (Appendix E). The perceived *societal meaningfulness* and the ACC declines with increasing tenure. On the other hand, the perceived *green tape* as well as the perceived *participation* during the reform increases. The *success* of the reform as well as the *resource* allocation is evaluated similarly across the tenure groups. However, the group with a tenure over 20 years is a little more critical.

6.2 Hierarchical multiple linear regression I

The first regression model aims to tackle the first research question and examines to what extent the assumed independent variables of the theoretical model I (Figure 2) explain the civil servants' commitment to change. Next to the independent variables, it is checked for control variables (see Chapter 5.2). The variables are entered into the analysis in blocks. Each block represents one dimension of change. However, the first block consists of the control variables, as suggested by Petrocelli (2003, p. 14), in order to control for their effects first. Afterwards, the dimensions of change are entered into the analysis following their theoretical relevance (Petrocelli 2003, p. 14; Tabachnick and Fidell 2013, p. 138). For the German public-sector, especially the content of the reform seems to influence civil servants' change commitment (Chapter 3.2). Therefore, the content variables *societal meaningfulness* and *intrinsic benefit* of the reform are entered second. As the control variable extrinsic benefit also belongs to this dimension it is entered as well. Throughout the literature the process of change seems to largely influence employees' ACC (Chapter 3.2). Therefore, the process variables are entered third, followed by the organizational context and the actors of change dimension.

In order to analyze the results of the hierarchical multiple linear regressions, the three-step procedure of Pallant (2007) is followed. First, the underlying assumptions of multiple regression are checked. Afterwards, the overall model is evaluated. Finally, the influence of each independent variable is examined.

Step 1: To reach generalizability, a certain sample size is required for a multiple regression analysis (Pallant 2007, p. 148). Stevens (1996, p. 72) suggests about 15 cases for each predictor variable. As the theoretical model I consists of eight predictor variables (Chapter 4), a sample size of 120 would be sufficient. When taking into account the control variables, a sample size of 225 is needed. This requirement is fulfilled, as the sample contains 227 cases.

Next, it checked for multicollinearity, which refers to the relation between the independent variables (Aljandali 2017, p. 4). There should be no bivariate correlation between the independent variables above 0.7 (Pallant 2007, p. 155). Table 7 shows that the conducted hierarchical multiple regression fulfills this criterion.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. ACC	1.000															
2. Municipal federation	-.121*	1.000														
3. Tenure	-.280***	-.093	1.000													
4. Age	-.160*	-.051	.697***	1.000												
5. Supervisor	-.083	-.093	.197**	.211**	1.000											
6. Education	.003	-.092	.052	.129*	.389***	1.000										
7. Financial Statement	.135*	-.217**	-.003	.091	.106	.041	1.000									
8. Societal m.	.819***	-.041	-.295***	-.175**	-.049	-.004	.123*	1.000								
9. Intrinsic benefit	.615***	-.094	-.198**	-.054	.043	.086	.104	.606***	1.000							
10. Extrinsic benefit	.399***	-.038	-.261***	-.267***	-.039	.066	.052	.408***	.566***	1.000						
11. Info/com	.284***	.013	.093	.071	.120*	.116*	.100	.306***	.179**	.214**	1.000					
12. Participation	.141*	-.207**	.130*	.145*	.295***	.332***	.114*	.195**	.262***	.185**	.379***	1.000				
13. Subjective norm	.499***	-.100	.000	.017	.009	-.027	.117*	.409***	.303***	.247***	.427***	.094	1.000			
14. Resource	.232***	-.086	-.038	.008	.070	.045	.141*	.175**	.120*	.230***	.533***	.192**	.444***	1.000		
15. Green tape	.030	-.098	.261***	.211**	.140*	.148*	.003	.004	.041	.039	.211**	.184**	.160**	.149**	1.000	
16. Private sector	.122*	.086	-.271***	.148*	-.093	-.011	.009	.135*	.108	.029	-.034	-.070	.014	-.046	.006	1.000

Table 7: Correlations for the variables in model I
*p < .05, **p < .01, ***p < .001 *for Person Correlation; n = between 206 and 227 depending on variable*

To check for multicollinearity, two other indicators are of interest: The tolerance and the *Variance Inflation Factor* (VIF) which indicate how much of the variability in one independent variable is explained by the other. If the multiple correlation between the variables is high, multicollinearity is possible. In order to reject this possibility, the

tolerance value should be above 0.10 and the VIF value below 10 (Pallant 2007, pp. 155–56; Aljandali 2017, p. 5). This is the case for this analysis, thus multicollinearity can be rejected.

The normal P-P Plot (Appendix F) shows that the cases lie on a rather straight diagonal line, suggesting no extreme deviation from normality (Stoetzer 2017, p. 154). The scatterplot (Appendix F) displays only one outlier (standardized residual more than 3.3 or less than -3.3). With larger samples, it is not unlikely to have multiple outliers. As in this analysis only one outlier exists, which is just slightly below the threshold, the case is not excluded (Pallant 2007, pp. 156-57). The other cases lie, as required, roughly rectangularly and concentrated around the center (Tabachnick and Fidell 2013, p. 127).

Step 2: The theoretical model proves to be a good predictor for ACC. As indicated by the adjusted R square (Stoetzer 2017, p. 42) the overall model explains 71.5% of the variance in *affective commitment to change* (Table8).

	Model 1	Model 2	Model 3	Model 4	Model 5
Control variables					
M. federation	-.129	-.081*	-.097*	-.075	-.075
Tenure	-.320**	-.039	-.046	-.055	-.055
Age	.057	.004	.007	-.002	-.002
Supervisor	-.063	-.062	-.056	-.059	-.059
Education	.021	.008	.019	.029	.029
Fin. Statement	.107	.015	.011	.005	.005
Content dimension					
Societal m.		.690***	.670***	.625***	.625***
Intrinsic b.		.184**	.203***	.189**	.189**
Extrinsic b.		-.003	-.011	-.028	-.028
Process dimension					
Info/com			.083	.000	.000
Participation			-.079	-.051	-.051
Context dimension					
Subjective norm				.177***	.177***
Resources				.029	.029
Green tape				.009	.009
Actor dimension					
Private sector					.000
R Square	.116	.704	.712	.736	.736
Adjusted R Square	.089	.691	.695	.717	.715
R Square Change	.116	.588	.007	.024	.000
Sig. F Change	.000	.000	.089	.001	.997

Table 8: Hierarchical regression predicting ACC
**p < .05, **p < .01, ***p < .001 for Standardized Beta Coefficients*

Next, the R Square change must be analyzed, indicating how much additional variance is explained by each block (Pallant 2007, p. 163; Tabachnick and Fidell 2013, pp. 150–51). However, R Square change only reaches significance for three blocks: For the control variables (R Square change = 0.116), the content dimension (R Square change = 0.588) and the organizational context (R Square change = 0.024) (Table 8).

To see whether the model reaches statistical significance, the ANOVA table needs to be examined (Appendix F). The significance values in the ANOVA table show the null hypothesis test (multiple R in the population = 0) (Pallant 2007, p. 158; Tabachnick and Fidell 2013, p. 149). The theoretical model is statistically significant as the significance value is 0.000 for each block.

Step 3: Finally, it is examined to what extent each variable contributes uniquely to the explanation of ACC. Accordingly, the values of the standardized Beta coefficients must be checked (Pallant 2007, p. 159), illustrated in table eight. For the overall model (model 5,) only three variables make a significant unique contribution: *societal meaningfulness* (0.652), *intrinsic benefit* (0.189) and *subjective norm* (0.177). In order to examine the contribution of these three variables to the adjusted R square, it has to be looked at the squared Part correlation coefficients (Pallant 2007, p. 159). Hence, *societal meaningfulness* explains 19,6% of the variance in ACC. *Intrinsic benefit* explains independently 1.7% and *subjective norm* 2% of the variance in ACC. However, there remains 0.482 of the variance, which is thus shared variance due to overlapping effects (Tabachnick and Fidell 2013, p. 150).

As the R square is relatively high, it is checked for overlapping effects, namely suppressors, mediators and moderators. In a simple mediation model, the independent variable X influences the outcome variable Y directly as well as indirectly via a mediation variable M, as illustrated in figure 9 (Hayes 2012, pp. 5–6).

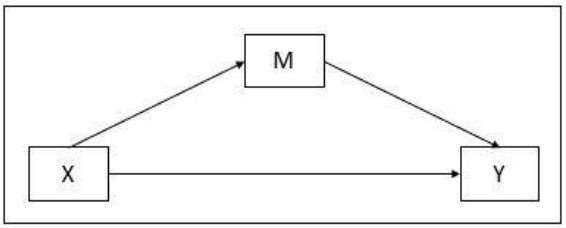


Figure 9: Mediation
Source: Hayes 2012, p. 33

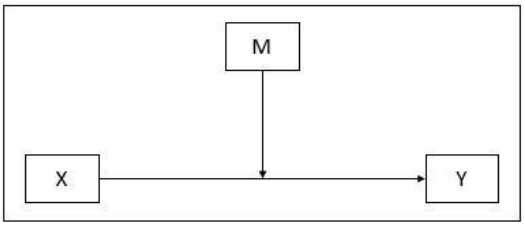


Figure 10: Moderation
Source: Hayes 2012, p. 34

It is also possible that the direct relationship between X and Y goes to zero when M is in the equation. Hence, an independent variable can influence an outcome variable

even though there is no direct effect in an overall model (Tabachnick and Fidell 2013, pp. 160–61). Mediation effects are tested for using PROCESS, a SPSS plugin, which was designed by Andrew Hayes in order to check for mediation and moderation (Hayes 2012). The results of the PROCESS analyses show that there are several mediation effects. The variable *information/communication* indirectly influences ACC via the independent variables *societal meaningfulness*, *intrinsic benefit* and *subjective norm*. *Resource* indirectly influences ACC via *societal meaningfulness* and *subjective norm*. *Participation* has an indirect effect on ACC through the variables *societal meaningfulness* and *intrinsic benefit*. The three variables directly influencing ACC in an overall model, also have mutual indirect effects.

A moderation (Figure 10) is present when the magnitude of the effect of an independent variable X on the outcome Y depends on a third variable M (Hayes 2012, p. 4). As for the mediation, PROCESS was used to check for moderation (Hayes 2012). The results of the PROCESS analyses indicate that there are no moderation effects among the examined variables.

A suppressor variable artificially inflates the R square of a regression model. According to Tabachnick and Fidell (2013, p. 155) "a suppressor variable is defined not by its own regression weight, but by its enhancement of the effect of other variables". One can identify a suppressor variable by comparing the simple correlations between the independent and the dependent variables (Table 7) with the standardized regression coefficients (Table 8). If the standardized regression coefficient differs significantly from zero, there can be a suppressor under two circumstances: Either, the standardized regression coefficient of an independent variable is substantially larger than the value of the simple correlation with the dependent variable, or the correlations and standardized regression coefficients have opposite signs (Tabachnick and Fidell 2013, p. 156). Neither of the two conditions is met in this regression. Hence, the existence of a suppressor variable among the examined variables can be rejected.

6.3 Hierarchical multiple linear regression II

The second regression model tackles the second research question and aims to investigate the influence of the employees' commitment to change on the perceived success of the reform implementation. The same procedure is followed as for the first regression. Accordingly, variables are entered into the analysis in blocks. The first block consists of the control variables including the variable for private sector experience.

Furthermore, in the following blocks it is controlled for the content of change variables, the process of change variables and the context of change variables. Concerning the content of change, the variable *societal meaningfulness* is excluded as its correlation with ACC is above 0.7 and would thus cause multicollinearity (Pallant 2007, p. 155).

Step 1: The number of variables (control and non-control variables) used in the first and the second regression model are both 15. Therefore, the sample size of 227 is also sufficient for the second regression model.

Next, it is checked for multicollinearity. Table 9 indicates that there is no multicollinearity, as there is no bivariate correlation between the dependent and the independent variables above 0.7 (Pallant 2007, p. 155).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Successful i.	1.000															
2. Municipal federation	-.127*	1.000														
3. Private sector	.034	.086	1.000													
4. Supervisor	.100	-.093	-.093	1.000												
5. Financial Statement	.217**	-.217**	.009	.106	1.000											
6. Tenure	-.094	-.093	.270***	.197**	-.003	1.000										
7. Age	.004	-.051	.148*	.211**	.091	.697***	1.000									
8. Education	.134*	-.092	-.011	.389***	.041	.052	.129*	1.000								
9. Intrinsic benefit	.470***	-.094	.108	.043	.104	-.198**	-.054	.086	1.000							
10. Extrinsic benefit	.390***	-.038	.029	-.039	.052	-.261***	-.267***	.066	.566***	1.000						
11. Info/com	.531***	.013	-.034	.120*	.100	.093	.071	.116*	.179**	.214**	1.000					
12. Participation	.297***	-.207**	-.070	.295***	.114*	.130*	.145*	.332***	.262***	.185**	.379***	1.000				
13. Subjective norm	.624***	-.100	.014	.009	.117*	.000	.017	-.027	.303***	.247***	.427***	.094	1.000			
14. Resource	.463***	-.086	-.046	.070	.141*	-.038	.008	.045	.120*	.230***	.533***	.192**	.444***	1.000		
15. Green tape	.237***	-.098	.006	.140*	.003	.261***	.211**	.148*	.041	.039	.211**	.184**	.160**	.149**	1.000	
16. ACC	.663***	-.121*	0.122*	-.083	.135*	-.280***	-.160*	.003	.615***	.399***	.284***	.141*	.499***	.232***	.030	1.000

Table 9: Correlations for the variables in model II

**p < .05, **p < .01, ***p < .001 for Person Correlation; n = between 206 and 227 depending on variable*

Furthermore, the tolerance and the VIF values are examined. Multicollinearity can be rejected, as the tolerance values are above 0.10 and the VIF value below 10 (Pallant 2007, pp. 155–56; Aljandali 2017, p. 5).

The normal P-P Plot (Appendix G) shows no extreme deviation from normality (Stoetzer 2017, p. 154). The scatterplot (Appendix G) displays, similar to the first model, only one outlier (standardized residual more than 3.3 or less than -3.3). With larger samples it is not unlikely to have multiple outliers. As in this analysis only one outlier

exists, the case is not excluded (Pallant 2007, pp. 156-57). As required, the other cases lie roughly rectangularly and concentrated around the center (Tabachnick and Fidell 2013, p. 127).

Step 2: The theoretical model proves to be a good predictor for the perceived successful reform implementation. The adjusted R square shows that the overall model explains 65% of the variance in the perceived implementation success.

	Model 1	Model 2	Model 3	Model 4	Model 5
Control variables					
M. federation	-.086	-.047	-.082	-.026	.002
Private sector	-.017	-.031	-.028	-.031	-.043
Supervisor	.051	.043	.015	.010	.044
Fin. Statement	.181*	.148*	.109*	.093	.077
Tenure	-.184	-.064	-.133	-.153	-.089
Age	.090	.093	.095	.074	.088
Education	.096	.056	.029	.048	.047
Content dimension					
Intrinsic b.		.323***	.286***	.210*'	.021
Extrinsic b.		.205**	.116	.071	.081
Process dimension					
Info/com			.450***	.227***	.181**
Participation			-.012	.043	.049
Context dimension					
Subjective norm				.374***	.248***
Resources				.083	.095
Green tape				.111*	.112*
ACC					.398***
R Square	.085	.287	.466	.602	.675
Adjusted R Square	.053	.254	.436	.573	.650
R Square Change	.085	.202	.180	.136	.073
Sig. F Change	.013	.000	.000	.000	.000

Table 10: Hierarchical regression predicting successful reform implementation
**p < .05, **p < .01, ***p < .001 for Standardized Beta Coefficients*

The significance values in the ANOVA table (Appendix G) displays the null hypothesis test (multiple R in the population = 0) (Pallant 2007, p. 158; Tabachnick and Fidell 2013, p. 149). The theoretical model reaches for each block statistical significance.

Step 3: The Beta values of the standardized coefficients are checked in order to examine the unique contribution of each variable to the explanation of the perceived implementation success (Table 10) (Pallant 2007, p. 159). For the overall model (model 5) four variables make a significant unique contribution: ACC (0.398*), information/communication* (0.181), the *subjective norm* (0.248) and *green tape* (0.112). The squared Part correlation coefficients are examined in order to see their contribution to the

adjusted R square (Pallant 2007, p. 159). Accordingly, ACC explains 7.3% of the variance in successful reform implementation. *Information/communication* explains independently 1.8%, *subjective norm* 3.6% and *green tape* 1.1% of the variance. Therefore, 51.2% of the variance remains, which is thus shared variance due to overlapping effects (Tabachnick and Fidell 2013, p. 150).

6.4 Results of the open question

The questionnaire gave participants the opportunity to list challenges they were confronted with during the implementation of the Doppik. From the answers, conclusions can be drawn about further factors which have an influence one civil servants' ACC. Of the 227 respondents 143 answered the open question. The answers were categorized into seven groups and 15 sub-groups (Table 11). To be included in the analysis, a category had to be named at least four times. The challenges identified in this study correspond to the results of the research on the Doppik (Chapter 3.1).

Challenges in the implementation of the Doppik	Sub-category	Frequency	Frequency total
Implementation issues	Opening balance sheet	44	61
	Consolidated financial statement	7	
	Annual financial statement	10	
Inadequate resources	Insufficient staffing	16	56
	Insufficient financial resources	7	
	Software issues	8	
	Insufficient training/transfer of knowledge	16	
	Insufficient skills	9	
Inadequate quality of information output	Use of the data obtained	4	13
	No comparisons between local authorities possible	9	
Inadequate communication/ organization	Communication problems between the state of Brandenburg and local authorities	24	40
	Internal communication	7	
	Internal organization and planning	9	
Inadequate legal framework	Inadequate guidelines/regulation of the state of Brandenburg	13	17
	Funding programs/funding policy not compatible with the Doppik	4	
Motivation/acceptance/change of thinking within the administration and/or in politics		49	
Capacity overload for municipal federations		4	

Table 11: Results of the open question

Implementation issues are seen as the biggest challenge in course of the Doppik introduction. Especially, the preparation of the opening balancing sheet is causing many problems. According to the respondents, the main issue with the opening balance sheet lies within the valuation of the assets.

51 of the respondents stated that they see the provision of resources as a challenge: Insufficient staffing and financial resources, software issues, insufficient training and knowledge transfer as well as insufficient technical skills within the administration are named in this context.

Thirdly, the motivation to reform or the acceptance of the Doppik within the administration and/or in politics is stated. Accordingly, a change in the way of thinking has to take place, as employees continue to think in cameralistic accounting. For this matter, the awareness raising for the benefits is given as an example.

A further problem lies in the inadequate communication between the state of Brandenburg, namely the Ministry of the Interior, and the local authorities. 24 participants listed that the State Government is not aware of the problems and challenges local authorities are facing during the implementation of the Doppik. This is explained by the fact that the state of Brandenburg has not introduced the Doppik. Related to this, thirteen respondents see inadequate guidelines/regulations for the Doppik, given by the state of Brandenburg. For example, for funding programs there seem to be compatibility issues with the Doppik.

Moreover, it is mentioned that the data obtained by the Doppik is not adequately used and that comparisons between municipalities across Germany and even within the state of Brandenburg are not possible. Finally, four participants indicate that the municipal federations have a capacity overload caused by the Doppik, as they must create an opening balance sheet and annual financial statements for several municipalities.

7 Discussion

The goal of this study lies twofold: On the one hand, the objective is to identify the key variables shaping employees' commitment to change (first research question) and, on the other hand, to examine to what extent employees' commitment to change influences the implementation process of the reform (second research question). For this matter, eight hypotheses have been derived from theory for the first research question, and hypothesis five for the second one (Table 12).

Hypothesis	Result
Hypothesis 1a: The greater the perceived societal meaningfulness of the reform, the greater the commitment of employees to change.	Societal meaningfulness has the largest influence on ACC.
Hypothesis 1b: The greater the perceived intrinsic benefit yielding out of the reform, the greater the commitment of employees to change.	Intrinsic benefit has a direct effect on ACC.
Hypothesis 2a: The stronger the perceived subjective norm towards the change in the organizational environment, the greater the commitment of employees to change.	Subjective norm has a direct effect on ACC.
Hypothesis 2b: The greater the general perceived green tape in an organization, the greater the employees' commitment to change.	Hypothesis 2b is falsified.
Hypothesis 2c: The greater the perceived satisfaction with the allocated resources for the reform, the greater the employees' commitment to change.	Resources as an indirect effect on ACC via societal meaningfulness and subjective norm.
Hypothesis 3a: The better the perceived communication/information during the process of the reform, the greater the employees' commitment to change.	Communication/information has an indirect effect on ACC via societal meaningfulness, intrinsic benefit and subjective norm.
Hypothesis 3b: The better the perceived participation during the implementation of the reform, the greater the employees' commitment to change.	Participation has an indirect effect on ACC via societal meaningfulness and intrinsic benefit.
Hypothesis 4: If civil servants have professional experience in the private sector, then their commitment to change is greater.	Hypothesis 4 is falsified.
Hypothesis 5: The higher civil servants' commitment to change, the higher the perceived success of the reform implementation.	ACC has an influence on the perceived success of the reform implementation.

Table 12: Results of the hypotheses test

Table 12 illustrates that hypotheses number 2b and 4 are falsified. Hence, for the case of the Doppik reform in Brandenburg *green tape* does not have an influence on ACC. In comparison to Kroll *et al.* (2012), it must be emphasized that, in this study, private sector experience does not significantly influence civil servants' commitment to reform. This can be due to different measurements: In the present study, ACC was the dependent variable. Kroll *et al.* (2012) investigated the reform willingness. However, they did not measure the willingness to reform, but instead the perceived necessity for reforms (Chapter 3.2). Furthermore, in this research the sample is drawn from local level administrations, while Kroll *et al.* (2012) focused on the national state level.

That the perceived *intrinsic benefits* of the reform, in the overall model (Table 8), positively relate to civil servants' ACC, is in accordance with the findings of Kroll *et al.*

(2012) and Raupach (2017). Moreover, in all three studies, focusing on the German public sector, the perceived *extrinsic benefits* do not have any influence.

Societal meaningfulness has the largest influence on civil servants' ACC in the overall model. This finding is pursuant to other studies, namely van der Voet (2017) and Tummers *et al.* (2012). For Raupach (2017) the effect of the perceived *intrinsic benefit* is larger. This can be due to the fact that Raupach (2017) used a different measure, as he investigated collective benefits.

The process variables *information/communication* and *participation* have only indirect effects, especially over the mediator *societal meaningfulness*. For van der Voet (2017) *information/communication* and *participation* have no direct effects on ACC when *societal meaningfulness* is in the equation. It is possible that for *information/communication* and *participation* there are mainly overlapping and indirect effects, when predicting civil servants' ACC.

The variable *subjective norm* has, in an overall model, a direct influence on ACC, which is in accordance with the results of Tummers *et al.* (2012). It is also consistent with the findings of Raupach (2017). However, Raupach (2017) calls his variable local project support. Nevertheless, as the variable consists of the items support from superiors, support from colleagues and participatory target agreements, the two variables are comparable.

The variable *resource* has an indirect effect on employees' ACC via *societal meaningfulness* and *subjective norm.* The results of the descriptive statistics show that the variable *resource* is evaluated the weakest among the participants. This is consistent with the findings of the open question, which indicate that inadequate resources are seen as the major problem. Potentially, the effect of the variable *resource* on ACC could have been even larger and maybe even a direct one, when all mentioned aspects that fall under the category *resource* were measured (for example software and technical skills). However, in public change management literature, the variable resource has not yet been widely considered as a factor influencing civil servants' ACC.

In an overall model, the control variables have no influence on civil servants' ACC.

Concerning the second research question, it must be emphasized that ACC has an influence on the perceived success of the Doppik implementation. This is pursuant to the public change management literature (Chapter 3.2). It is also confirmed by the

results of the open question: 49 participants see the motivation/acceptance of the civil servants as a challenge in the Doppik implementation.

Furthermore, the control variables *green tape*, *subjective norm* and *information/communication* have a direct influence on the perceived success of the reform implementation. When *green tape* is present, a public administration is supposed to be well functioning. It is theoretically comprehensible that in a well-functioning administration, reforms are implemented successfully (Chapter 4.3.2).

Also, the direct effect of the variable *subjective norm* on the successful implementation is not surprising. *Subjective norm* is the perceived social pressure to behave in a certain way. It implies the perceived attitude of the colleagues and supervisors towards the reform. As the civil servants' change commitment has an effect on the successful reform implementation, it is comprehensible that also the attitude of the colleagues and supervisors has one (Chapter 4.3.2).

Finally, the variable *information/communication* directly influences the perceived reform implementation. This can be due to the fact that with a high-quality communication, civil servants feel better informed about the progress of change and thus see the implementation process more positively. Furthermore, they are aware at an early stage of what is approaching them and can therefore react accordingly (4.3.3).

Figure 11 displays the overall model with the direct effects as well as with the mediating effects:

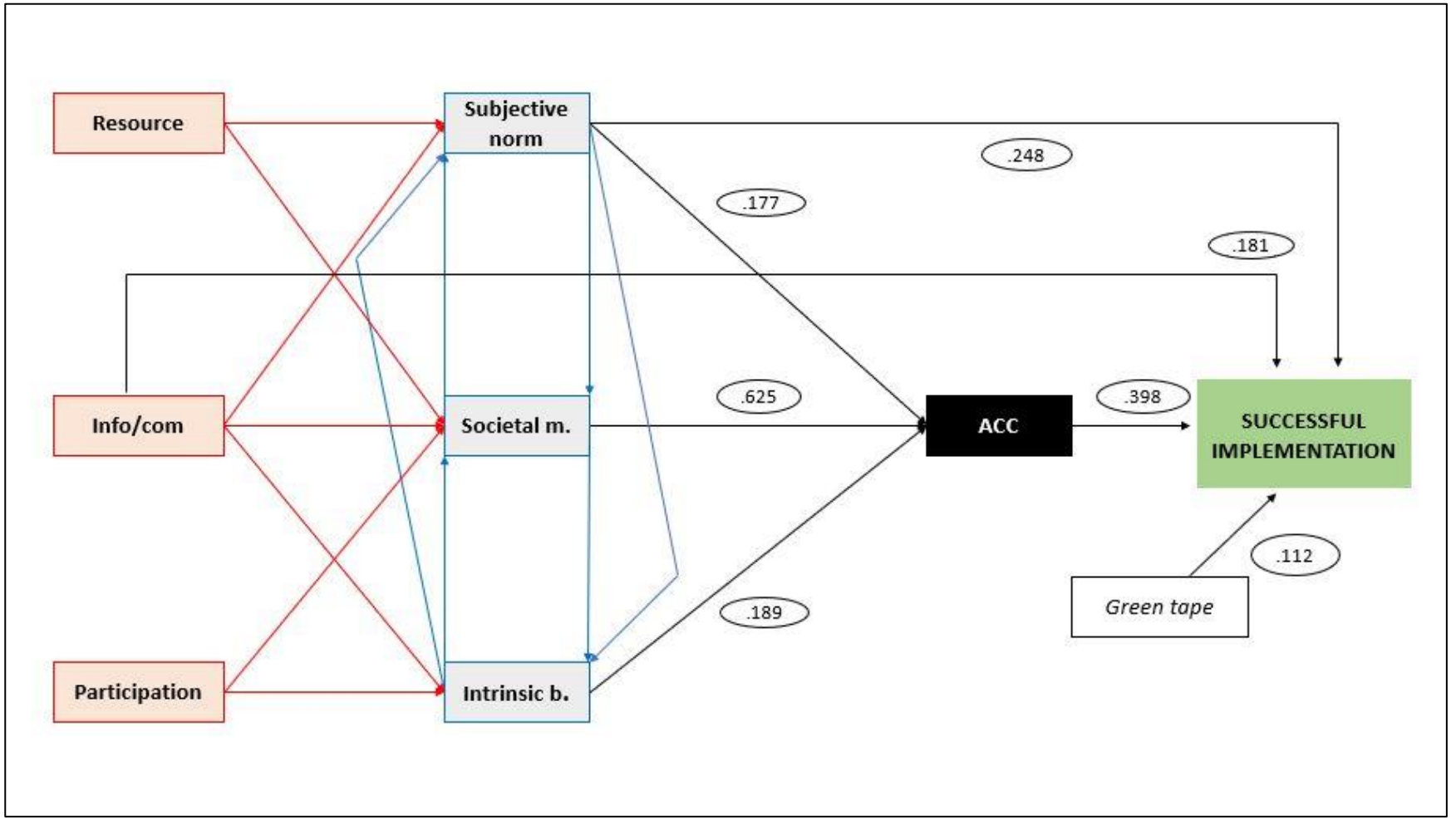


Figure 11: Total model

Standardized beta coefficients are given;

→ *direct effects,* → *perfect mediation,* → *mediation;*

8 Summary and conclusion

After clarifying the relevance of the research topic and the research question, this thesis started by briefly introducing the public budgeting and accounting system of Germany (Chapter 2). Afterwards, the state of research was outlined (Chapter 3). Not only the research concerning the reform of the local budget and accounting system in Germany was considered, but also the public change management literature focusing on explanatory factors for civil servants' commitment to change. In view of the state of literature, this study aimed to develop a model, integrating the change content, context, process and the personal characteristics of the change recipients.

The two theoretical models were derived from change management theory, public policy research, green tape theory, social psychology as well as findings concerning the German public administration in general and the reform of public budget and accounting in particular (Chapter 4). In order to test the theoretical models, a quantitative questionnaire was developed and sent to 1134 civil servants, working in the finance departments as well as audit offices of the 214 local public authorities with an independent administration of the state of Brandenburg. 227 answers were collected and analyzed by using hierarchical multiple regressions (Chapter 5).

The results (Chapter 6) show that especially the perceived *societal meaningfulness* of the reform, but also the *intrinsic benefit* and the *subjective norm* shape the civil servants' ACC. Furthermore, the civil servants' ACC has a significant influence on the perceived success of the Doppik implementation. In total, the respondents evaluate the success of the reform rather neutral, their *affective commitment to change* slightly positive and the *resource* allocation most negatively. *Green tape*, defined as effective organizational rules, is rated most positively. With increasing tenure, the perceived *societal meaningfulness* of the reform and the ACC decreases. However, the perceived *participation* and *green tape* increases.

Moreover, the respondents see major communication problems with the Government of the state of Brandenburg and are missing legal regulations as well as clear and up-to-date guidelines concerning the Doppik implementation. They also indicate that there remain fundamental problems with the implementation, especially the asset valuation in course of the opening balance sheet. Municipal federations are the local authorities which are the most negative towards the reform. This can be due to the fact

that they have to prepare several opening balance sheets and annual financial statements for each municipality within the federation.

To answer the first research question: The commitment of civil servants towards the reform of the public budgeting and accounting system in Brandenburg is most largely determined by the perceived *societal meaningfulness* of the reform. However, also the perceived *intrinsic benefits* and the *subjective norm* have a significant direct influence. Moreover, the variables *information/communication*, *resource* and *participation* have indirect effects on civil servants' ACC, mediated via the variables with a direct effect. No influence could be fund for *green tape* and *public-sector experience*.

To answer the second research question: civil servants' ACC has, when comparing with the control variables, the largest effect on the perceived success of the Doppik implementation. Hence, employees' ACC is a crucial factor determining whether a public-sector reform succeeds or fails and should thus not be underestimated.

8.1 Restrictions and limitations

In view of the results of this study, some restrictions and limitations need to be clarified in terms of the methodological approach. First, the questionnaire was designed using scales which measured self-reported attitudes and opinions. It is possible that respondents gave untruthful answers (measurement error), for example social desired ones (Ponto 2015, p. 169). Second, the data collection was conducted at one point in time (cross-sectional design), which limits the inferences of causality between examined variables. It is therefore advisable to repeat the survey in order to be able to detect time-delayed effects.

Third, the present study was carried out in Brandenburg, which limits the generalizability of the findings. As shown by Raupach (2017), the situation in other federal states can look differently. Repeating this study in other federal states would, therefore, be necessary. Another limitation is that not all possible factors that might influence employees' commitment to change are included (for example, the perceived individual capacity to implement the reform). Fifth, a sampling error is present as individuals in supervisor positions are overrepresented, which has to be viewed critical in view of the internal validity of the results. Indeed, supervisors have answered differently than non-supervisors (Chapter 6.1).

The last restriction is best highlighted by the following quote: "Demonstration of causality is a logical and experimental, rather than statistical, problem" (Tabachnick and

Fidell 2013, p. 122). Therefore, the relationships between variables, revealed through regression analyses, do not necessarily imply that these relationships are causal.

8.2 Implications for future research

First, this study contributes to the research regarding the Doppik introduction, as it investigated factors determining the successful implementation of the reform. The applied model is a strong predictor for civil servants' ACC, and the civil servants' ACC is a crucial factor in explaining the perceived success of the Doppik reform. Future research has to show whether the model is also suitable for other federal states. Furthermore, other variables, as for example the perceived individual capacity to implement the reform, could increase the explanatory power of the model. Nevertheless, in view of the study of Raupach (2017) for the German public sector, the perceived *societal meaningfulness* and the *intrinsic benefits* of the reform (the content-dimension) seem crucial for the employees' change commitment regarding the Doppik.

Second, by revealing four aspects, the study contributes to the public change management literature:

1. The variables *information/communication* and *participation* that have throughout the different studies a strong positive relation with employees' attitudes towards change, is fading when *societal meaningfulness* is added to the model. In that case, the former direct effect becomes an indirect effect. The examination of interrelations between variables with a possible influence on civil servants' ACC offers a promising field of study.
2. Even though quite a few different variables have been tested, there are still many variables that can reasonably be assumed to have an influence on employees' ACC and have to be tested in future research. An often-named example is trust in supervisors (Tummers *et al.* 2012, p. 731).
3. This thesis shows that a model which integrates change content, context, process and the personal characterizes of change actors, has a strong explanatory power. Future research should, thus, consider multidimensional models when investigating civil servants' ACC.
4. Civil servants' ACC positively influences the perceived success of a reform implementation. At this point, it would be interesting for future research to investigate other factors, as *green tape* or *subjective norms* and their interrelations concerning their influence on the reform implementation.

Third, this thesis contributes to the research on *green tape theory*, which is still in its infancy. *Green tape* can be defined as "the extent to which a rule achieves its intended purposes" (DeHart-Davis 2009, p. 901). This study tested the concept of *green tape*, by relating it to civil servants' ACC. However, no relation could be found. Nevertheless, the results depict that the perceived *green tape* has a positive relation with the perceived implementation success of the Doppik reform. The relation between *green tape* and the outcome of reforms requires further testing. Moreover, a more reliable scale to measure *green tape*, consisting of more than one item, needs to be developed. For this matter, the scale developed by Borry (2015) for *red tape* could be a promising starting point.

Finally, this study can also be of use for other areas of public management research, for example the field of Public Service Motivation. In the study of Hammerschmid *et al.* (2009) the dimension *commitment to the public interest* of Public Service Motivation, which is similar to the variable *societal meaningfulness* used in this study, was the strongest among the civil servants. Hence, this study confirms that the benefit for the public interest is a particular motivational factor for those who are working in public services in German-speaking countries.

8.3 Implications for public management practice

The reform of the public budgeting and accounting system in Brandenburg is far from complete. The response by the Ministry of the Interior on the 26th of March 2018 to a minor inquiry by a member of the State Parliament revealed considerable shortcomings in the preparation of opening balance sheets and annual financial statements. These shortcomings are confirmed by the findings of the present thesis. In the following, this study provides grounded recommendations which, if taken into account in future public management practice, can be promising approaches to improve the implementation of the Doppik on local level in Brandenburg.

The results of this study are consistent with the public change management literature. Accordingly, the civil servants' commitment to change is a crucial factor in successfully implementing reforms (Ritz *et al.* 2012, p. 161; Kuipers *et al.* 2014, p. 10). Therefore, a starting point would be to increase the civil servants' ACC concerning the Doppik reform. How can this be done?

The findings of this thesis reveal that the most promising approach to increase employees' ACC is to try to improve the way the civil servants think about the reform. If they are convinced that a reform has benefits for society and offers interesting perspectives as well as tasks, then civil servants are likely to be committed to the reform. This can be done by a high-quality change communication. The benefits of the reform for the public need to be emphasized and made clear. Furthermore, civil servants must be able to recognize that the data obtained from the Doppik is actually used for controlling and management purposes. Additionally, options for participation could offer civil servants interesting job perspectives. If their commitment towards the Doppik can be increased, it would have a self-reinforcing effect, since the employees influence each other in their attitudes.

However, for a reform implementation to be successful, not only committed employees are essential, but also favorable surrounding conditions are needed. An important factor is the provision of sufficient resources (Fernandez and Rainey 2006, p. 172). The survey showed that a functioning software, sufficient staff and financial resources as well as sufficient technical skills are considered as a crucial issue by the civil servants. Moreover, legal regulations and guidelines concerning the application of the Doppik are required, which are clear and up-to-date.[8] The study discloses room for improvement on that matter. Finally, this study could identify crucial communication problems between the local authorities and the Ministry of the Interior in Brandenburg, which was responsible for the reform formulation. Civil servants in local authorities of Brandenburg indicated that they are missing a central contact person within the Government, which is coordinating the implementation of the reform and provides assistance when problems appear.

The reform of the Doppik introduction in Brandenburg has not yet been completed. The developed recommendations offer grounded guidelines, on which steps are necessary to successfully implement the Doppik on local level in Brandenburg. However, also for potential future reforms of the public budgeting and accounting system, as the EPSAS initiative, the findings of this study are of value.

[8] The call for additional resources and clear guidelines is in accordance with the requests of the local authorities, which were outlined in the circular letter by the Ministry of the Interior of the state of Brandenburg of January 2018 (Das Ministerium des Innern und für Kommunales des Landes Brandenburg 2018). Nevertheless, the Ministry of the Interior sees, as outlined in the circular letter, no further need for regulations despite the requests of the local authorities and the obvious deficits in the implementation of the Doppik. This is justified by the fact that the majority of problems are individual and cannot be generalized to the entire local level.

Bibliography

Ahmad, A.B. and Z. Cheng. 2018. 'The Role of Change Content, Context, Process, and Leadership in Understanding Employees' Commitment to Change: The Case of Public Organizations in Kurdistan Region of Iraq', *Public Personnel Management*, 47, 2, 195–216.

Ajzen, I. 1991. 'The theory of planned behavior', *Organizational Behavior and Human Decision Processes*, 50, 2, 179–211.

Aljandali, A. 2017. *Multivariate Methods and Forecasting with IBM® SPSS® Statistics*. Cham: Springer International Publishing.

Armenakis, A.A., S.G. Harris and H.S. Feild. 1999. 'Making change permanent: A model for institutionalizing change interventions', in Pasmore W. and R. Woodman (eds), *Research in organizational change and development*. Stamford: Emerald Group Publishing Limited, pp. 97–128.

Articus, S. and W. Wagner. 2011. *Evaluierung der Reform des kommunalen Haushalts- und Rechnungswesens: Ergebnisse eines Kooperationsprojekts des Deutschen Städtetages mit der PricewaterhouseCoopers AG Wirtschaftsprüfungsgesellschaft*. Berlin: Deutscher Städtetag und PricewaterhouseCoopers AG Wirtschaftsprüfungsgesellschaft.

Blanke, B. (ed.). 2011. *Handbuch zur Verwaltungsreform*, 4th edn. Wiesbaden: VS Verl. für Sozialwiss.

Boettcher, F., R. Freier, R. Geißler and M. Schubert. 2017. *Kommunaler Finanzreport 2017*. Gütersloh: Bertelsmann Stiftung.

Bogumil, J., F. Ebinger and L. Holtkamp. 2011. 'Vom Versuch, das Neue Steuerungsmodell verpflichtend einzuführen', *Verwaltung & Management*, 17, 4, 171–80.

Borry, E.L. 2015. 'A New Measure of Red Tape: Introducing the Three-Item Red Tape (TIRT) Scale', *International Public Management Journal*, 19, 4, 573–93.

Bortz, J. and C. Schuster. 2010. *Statistik für Human- und Sozialwissenschaftler: Mit 163 Tabellen*, 7th edn. Berlin, Heidelberg: Springer.

Bozeman, B. 2000. *Bureaucracy and red tape*. Upper Saddle River, N.J.: Prentice Hall.

Brislin, R.W. 1980. 'Translation and content analysis of oral and written materials', in H.C. Triandis and J.W. Berry (eds), *Handbook of cross-cultural psychology*. Boston: Allyn and Bacon, pp. 89–102.

Budäus, D. and D. Hilgers. 2011. 'Öffentliches Rechnungswesen', in B. Blanke (ed.), *Handbuch zur Verwaltungsreform*, 4th edn. Wiesbaden: VS Verl. für Sozialwiss, pp. 419–27.

Budäus, D., D. Hilgers and B. Raupach. 2014. 'Standardisierung des öffentlichen Rechnungswesens: Vom IMK-Beschluss 2003 zu EPSAS 2015', *Verwaltung & Management*, 20, 3, 153–56.

Budäus, D., D. Hilgers and G. Steger. 2014. *Entwicklungspfade und Reformdefizite öffentlicher Ressourcensteuerung in Deutschland: Lernen am aktuellen Beispiel Österreich*. Berlin: Inst. Finanzen und Steuern.

Burth, A. 2015. *Kommunale Haushaltssteuerung an der Schnittstelle von Doppik und Haushaltskonsolidierung*. Wiesbaden: Springer Fachmedien.

Burth, A. and D. Hilgers. 2012. 'Welchen Mehrwert bringt die kommunale Doppik?', *Verwaltung & Management*, 18, 3, 141–46.

Burth, A. and D. Hilgers. 2014. 'Cui bono?: Depicting the benefits of the new municipal budgeting and accounting regime in Germany', *Journal of Business Economics*, 84, 4, 531–70.

Burth, A. and D. Hilgers. 2015. 'Nutzen-Determinanten der kommunalen Doppik aus Sicht der Haushaltspolitiker', *der moderne staat – Zeitschrift für Public Policy, Recht und Management*, 8, 1, 173–200.

By, R.T. 2005. 'Organisational change management: A critical review', *Journal of Change Management*, 5, 4, 369–80.

Chadegani, A.A., H. Salehi, M.M. Yunus, H. Farhadi, M. Fooladi, M. Farhadi and N.A. Ebrahim. 2013. 'A Comparison between Two Main Academic Literature Collections: Web of Science and Scopus Databases', *ASS (Asian Social Science)*, 9, 5, 18-26.

Creswell, J.W. 2014. *Research design: Qualitative, quantitative, and mixed methods approaches*, 4th edn. Los Angeles, London, New Delhi, Singapore, Washington, DC: Sage.

Das Ministerium des Innern und für Kommunales des Landes Brandenburg. 2018. 'Rundschreiben in kommunalen Angelegenheiten zur Anwendung des doppischen Haushalts-, Kassen- und Rechnungswesens und Außerkraftsetzung eines Runderlasses' Dok.-Nr.: 2017/004899 (http://www.mik.brandenburg.de/sixcms/media.php/1065/Rundschreiben_kom_Haushaltsrecht.pdf), accessed 13 April 2018.

DeHart-Davis, L. 2008. 'Green Tape: A Theory of Effective Organizational Rules', *Journal of Public Administration Research and Theory*, 19, 2, 361–84.

DeHart-Davis, L. 2009. 'Green Tape and Public Employee Rule Abidance: Why Organizational Rule Attributes Matter', *Public Administration Review*, 69, 5, 901–10.

DeHart-Davis, L., J. Chen and T.D. Little. 2013. 'Written Versus Unwritten Rules: The Role of Rule Formalization in Green Tape', *International Public Management Journal*, 16, 3, 331–56.

DeHart-Davis, L., R.S. Davis and Z. Mohr. 2015. 'Green Tape and Job Satisfaction: Can Organizational Rules Make Employees Happy?', *Journal of Public Administration Research and Theory*, 25, 3, 849–76.

Die Landesregierung Brandenburg. 2016. 'Anzahl der Landkreise, kreisfreien Städte, Gemeinden und Ämter in Brandenburg' (https://service.brandenburg.de/de/Anzahl-der-Landkreise-kreisfreien-Staedte-Gemeinden-und-Aemter-in-Brandenburg/20108), accessed 18 June 2018.

Die Landesregierung Brandenburg. 2018. 'Antwort der Landesregierung auf die Kleine Anfrage Nr. 3340 des Abgeordneten Helmut Barthel (SPD-Fraktion): Einführung und Umsetzung der Doppik im Land Brandenburg' Drucksache 6/8184 (https://kleineanfragen.de/brandenburg/6/8428-einfuehrung-und-umsetzung-der-doppik-im-land-brandenburg), accessed 13 April 2018.

Döring, N. and J. Bortz. 2016. *Forschungsmethoden und Evaluation in den Sozial- und Humanwissenschaften*, 5th edn. Berlin, Heidelberg: Springer.

Erdmann, C., B. Adam, S. Gräf, M. Kahl and D. Liese. 2014. *Kommunale Finanzwirtschaft im Land Brandenburg: Darstellung*, 4th edn. Wiesbaden: Kommunal- und Schul-Verlag Wiesbaden.

Fernandez, S. and H.G. Rainey. 2006. 'Managing Successful Organizational Change in the Public Sector', *Public Administration Review*, 66, 2, 168–76.

Giauque, D. 2015. 'Attitudes Toward Organizational Change Among Public Middle Managers', *Public Personnel Management*, 44, 1, 70–98.

Goodsell, C.T. 2000. 'Red Tape and a Theory of Bureaucratic Rules', *Public Administration Review*, 60, 4, 373–75.

Häfner, P., R. Wissing and E. Quast. 2014. *Standards staatlicher Doppik: Umsetzung der neuen Regelungen für die Praxis*, 1st edn. Freiburg im Br.: Haufe.

Hameed, I., A.K. Khan, M. Sabharwal, G.A. Arain and I. Hameed. 2017. 'Managing Successful Change Efforts in the Public Sector: An Employee's Readiness for Change Perspective', *Review of Public Personnel Administration*, 20, 1-24.

Hammerschmid, G., R.E. Meyer and I. Egger-Peitler. 2009. 'Das Konzept der Public Service Motivation: Status Quo der internationalen Diskussion und erste empirische Evidenzen für den deutschsprachigen Raum', *der moderne staat – Zeitschrift für Public Policy, Recht und Management*, 1, 73–92.

Hayes, A.F. 2012. 'PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling' (http://www.afhayes.com/public/process2012.pdf).

Herold, D.M., D.B. Fedor and S.D. Caldwell. 2007. 'Beyond change management: A multilevel investigation of contextual and personal influences on employees' commitment to change', *Journal of Applied Psychology*, 92, 4, 942–51.

Herscovitch, L. and J.P. Meyer. 2002. 'Commitment to organizational change: Extension of a three-component model', *Journal of Applied Psychology*, 87, 3, 474–87.

Hesse-Biber, S.N. and P. Leavy. 2011. *The practice of qualitative research*, 2nd edn. Los Angeles Calif. u.a.: Sage.

Hilgers, D. 2011. 'Kosten- und Leistungsrechnung in der öffentlichen Verwaltung', in B. Blanke (ed.), *Handbuch zur Verwaltungsreform*, 4th edn. Wiesbaden: VS Verl. für Sozialwiss, pp. 428–36.

Hilgers, D., S. Hoffsümmer and C. Nitzl. 2017. 'Reform des öffentlichen Haushalts- und Rechnungswesens in Deutschland', *Public Governance Zeitschrift für öffentliches Management*, 6–11.

Kroll, A., T. Krause, D. Vogel and I. Proeller. 2012. 'Was bestimmt die Reformbereitschaft von Führungskräften in der Ministerialverwaltung?', *Verwaltung & Management*, 18, 2, 75–80.

Kuipers, B.S., M. Higgs, W. Kickert, L. Tummers, J. Grandia and J. van der Voet. 2014. 'The Management of Change in Public Organizations: A Literature Review', *Public Administration*, 92, 1, 1–20.

Kußmaul, H. and J. Henkes. 2010. *Kommunale Doppik: Einführung in das Dreikomponentensystem*. Berlin: E. Schmidt.

Lampe, H.W., D. Hilgers and C. Ihl. 2015. 'Does accrual accounting improve municipalities' efficiency?: Evidence from Germany', *Applied Economics*, 47, 41, 4349–63.

Malhotra, N.K., D.F. Birks and P. Wills. 2012. *Marketing research: An applied approach*, 4th edn. Harlow: Financial Times Prentice Hall.

Metselaar, E.E. 1997. *Assessing the willingness to change: Construction and validation of the DINAMO*. Amsterdam: Vrije Universiteit.

Noble, C.H. and M.P. Mokwa. 1999. 'Implementing Marketing Strategies: Developing and Testing a Managerial Theory', *Journal of Marketing*, 63, 4, 57.

Pallant, J. 2007. *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows*, 3rd edn. Maidenhead: Open Univ. Press.

Parish, J.T., S. Cadwallader and P. Busch. 2008. 'Want to, need to, ought to: Employee commitment to organizational change', *Journal of Organizational Change Management*, 21, 1, 32–52.

Pasmore W. and R. Woodman (eds). 1999. *Research in organizational change and development*. Stamford: Emerald Group Publishing Limited.

Petrocelli, J. 2003. 'Hierarchical Multiple Regression in Counseling Research: Common Problems and Possible Remedies', *Measurement and Evaluation in Counseling and Development*, 36, 9–22.

Ponto, J. 2015. 'Understanding and Evaluating Survey Research', *Journal of the Advanced Practitioner in Oncology*, 6, 2, 168-171.

Rafferty, A.E. and S.L.D. Restubog. 2010. 'The Impact of Change Process and Context on Change Reactions and Turnover During a Merger', *Journal of Management*, 36, 5, 1309–38.

Raupach, B. 2017. *Erfolgsfaktoren im Innovationsmanagement*. Wiesbaden: Springer Fachmedien Wiesbaden.

Regmi, K., J. Naidoo and P. Pilkington. 2010. 'Understanding the Processes of Translation and Transliteration in Qualitative Research', *International Journal of Qualitative Methods*, 9, 1, 16–26.

Reichard, C. 2011. 'Vom Versuch, NSM und NKF in einen Topf zu werfen', *Verwaltung & Management*, 17, 6, 283–87.

Riemenschneider, S. 2015. *Evaluation der Reform der kommunalen Rechnungslegung in NRW: Befragung kommunaler Mandatsträger und Analyse von Abschlüssen ausgewählter Gemeinden*. Hamburg: Kovač.

Ritz, A., A. Shantz, K. Alfes and A.S. Arshoff. 2012. 'Who Needs Leaders the Most?: The Interactive Effect of Leadership and Core Self-Evaluations on Commitment to Change in the Public Sector', *International Public Management Journal*, 15, 2, 160–85.

Rütten, A., K. Abu-Omar, P. Gelius, S. Dinan-Young, K. Frändin, M. Hopman-Rock and A. Young. 2012. 'Policy assessment and policy development for physical activity promotion: Results of an exploratory intervention study in 15 European nations', *Health research policy and systems*, 10, 14, 1-10.

Rütten, A., P. Gelius and K. Abu-Omar. 2011. 'Policy development and implementation in health promotion-from theory to practice: The ADEPT model', *Health promotion international*, 26, 3, 322–29.

Schauer, R. 2016. *Rechnungswesen in öffentlichen Verwaltungen: Von der Kameralistik zur Doppik - Einführung und Standortbestimmung*, 3rd edn. Wien: Linde Verlag.

Scott, P.G. and S.K. Pandey. 2000. 'The influence of red tape on bureaucratic behavior: An experimental simulation', *Journal of Policy Analysis and Management*, 19, 4, 615–33.

Shin, J., M.-G. Seo, D.L. Shapiro and M.S. Taylor. 2015. 'Maintaining Employees' Commitment to Organizational Change', *The Journal of Applied Behavioral Science*, 51, 4, 501–28.

Shum, P., L. Bove and S. Auh. 2008. 'Employees' affective commitment to change', *European Journal of Marketing*, 42, 11/12, 1346–71.

Stevens, J. 1996. *Applied multivariate statistics for the social sciences*, 3rd edn. Mahwah, NJ: Erlbaum.

Stoetzer, M.-W. 2017. *Regressionsanalyse in der empirischen Wirtschafts- und Sozialforschung Band 1*. Berlin, Heidelberg: Springer.

Stykow, P. 2010. *Politikwissenschaftliche Arbeitstechniken*, 2nd edn. München: Fink.

Sullivan, G.M. and A.R. Artino. 2013. 'Analyzing and interpreting data from likert-type scales', *Journal of graduate medical education*, 5, 4, 541–42.

Tabachnick, B.G. and L.S. Fidell. 2013. *Using multivariate statistics*, 6th edn. Boston, Mass.: Pearson.

Thielsch, M.T. and T. Brandenburg (eds). 2012. *Praxis der Wirtschaftspsychologie II: Themen und Fallbeispiele für Studium und Anwendung*. Münster: Monsenstein und Vannerdat.

Thielsch, M.T., T. Lenzner and T. Melles. 2012. 'Wie gestalte ich gute Items und Interviewfragen?', in M.T. Thielsch and T. Brandenburg (eds), *Praxis der Wirtschaftspsychologie II: Themen und Fallbeispiele für Studium und Anwendung*. Münster: Monsenstein und Vannerdat, pp. 221–40.

Triandis, H.C. and J.W. Berry (eds). 1980. *Handbook of cross-cultural psychology*. Boston: Allyn and Bacon.

Tummers, L., B. Steijn and V. Bekkers. 2012. 'Explaining the Willingness of Public Professionals to Implement Public Policies: Content, Context, and Personality Characteristics', *Public Administration*, 90, 3, 716–36.

van de Walle, S. and S. Groeneveld (eds). 2016. *Theory and practice of public sector reform*. New York, London: Routledge.

van der Voet, J. 2016. 'Change Leadership and Public Sector Organizational Change', *The American Review of Public Administration*, 46, 6, 660–82.

van der Voet, J., B.S. Kuipers and S. Groeneveld. 2016. 'Change Management Perspective', in S. van de Walle and S. Groeneveld (eds), *Theory and practice of public sector reform*. New York, London: Routledge, pp. 79–99.

van der Voet, J., B.S. Kuipers and S. Groeneveld. 2016. 'Implementing Change in Public Organizations: The relationship between leadership and affective commitment to change in a public sector context', *Public Management Review*, 18, 6, 842–65.

van der Voet, J., B. Steijn and B.S. Kuipers. 2017. 'What's in it for others?: The relationship between prosocial motivation and commitment to change among youth care professionals', *Public Management Review*, 19, 4, 443–62.

Vaus, D.A. de. 2007. *Surveys in social research*. London: Routledge.

Vaus, D.A. de. 2008. *Research design in social research*. London: Sage.

Wanberg, C.R. and J.T. Banas. 2000. 'Predictors and outcomes of openness to changes in a reorganizing workplace', *Journal of Applied Psychology*, 85, 1, 132–42.

Weiß, J., S. Belitz, C. Brix, G. Diedrich, J. Heinemann, D. Hempel, M. Jannikoy, K. Janowski, S. Kroke, E. Lamprecht, M. Lytkowski, B. Müller, K. Neufeld, I. Petereit, J. Reuter, D. Rohde, M. Schlechter, J. Wesemeyer and S. Zobel (eds). 2014. *Evaluation der DOPPIK-Einführung in den Kommunen des Landes Sachsen-Anhalt*. Halberstadt: Hochschule Harz Fachbereich Verwaltungswissenschaften.

Wenner, C. 2008. *Stand der Einführung des neuen Haushalts- und Rechnungswesens: Ergebnisse einer bundesweiten Umfrage*. Köln: KGSt.

Wright, B.E., R.K. Christensen and K.R. Isett. 2013. 'Motivated to Adapt?: The Role of Public Service Motivation as Employees Face Organizational Change', *Public Administration Review*, 73, 5, 738–47.

Appendix A: Online survey

Stand: 2018-06-24 20:51:09

Fragebogen zur Einführung der Doppik auf kommunaler Ebene in Brandenburg

Im Januar 2008 trat in Brandenburg ein neues, an der Doppik orientiertes, kommunales Haushaltsrecht in Kraft. Danach mussten (nach einer Übergangsfrist, spätestens bis zum Jahr 2011) alle Kommunen in Brandenburg ihren Haushalt nach dem neuen Recht aufstellen. Mit dieser Umfrage möchten wir Ihre Erfahrung mit der Einführung und Umsetzung der Doppik untersuchen.

Wir versichern Ihnen, dass der Schutz der Anonymität aller TeilnehmerInnen und die Vertraulichkeit der Antworten für uns höchste Priorität haben. Eine Zuordnung von Antworten zu bestimmten Personen wird und kann nicht erfolgen.
Das Ausfüllen des Fragebogens dauert ca. zehn bis 15 Minuten. Mit Ihrer Teilnahme leisten Sie einen entscheidenden Beitrag zum Erfolg dieses Forschungsprojekts.

Wir danken Ihnen vielmals für Ihre Zeit und Ihre Unterstützung.

Bitte kreuzen Sie in jeder Zeile nur das Feld an, welches Ihrer Meinung nach am ehesten zutrifft.

1.a) Allgemeiner Eindruck zur Einführung der Doppik

Bitte geben Sie an, inwieweit Sie den folgenden Aussagen zustimmen:

Veränderungen, die sich aus der Doppik-Einführung konkret für mein Aufgabenspektrum ergeben/ergeben haben, ...	**stimme überhaupt nicht zu** 1	**stimme eher nicht zu** 2	**teils/teils** 3	**stimme eher zu** 4	**stimme voll und ganz zu** 5
... bieten interessante neue Einblicke.	○	○	○	○	○
... machen meine Arbeit deutlich abwechslungsreicher.	○	○	○	○	○
... bedeuten mehr Spaß bei der Arbeit.	○	○	○	○	○
... stellen eine spannende Herausforderung für mich dar.	○	○	○	○	○
... können mir die Wertschätzung meiner Vorgesetzten einbringen.	○	○	○	○	○
... beeinflussen meine Aufstiegschancen positiv.	○	○	○	○	○
... können zu einer besseren Vergütung führen.	○	○	○	○	○

1.b) Allgemeiner Eindruck zur Einführung der Doppik

Bitte geben Sie an, inwieweit Sie den folgenden Aussagen zustimmen:

Im Zuge der Doppik-Einführung...	**stimme überhaupt nicht zu**	**stimme eher nicht zu**	**teils/teils**	**stimme eher zu**	**stimme voll und ganz zu**
	1	2	3	4	5
...gibt und gab es ausreichend Personal.	○	○	○	○	○
...hat und hatte meine Organisation die notwendigen Fachkenntnisse.	○	○	○	○	○
...stehen und standen ausreichende finanzielle Mittel zur Verfügung.	○	○	○	○	○

1.c) Allgemeiner Eindruck zur Einführung der Doppik

Bitte geben Sie an, wie die folgenden Personen Ihrer Meinung nach gegenüber der Doppik eingestellt sind:	sehr negativ 1	eher negativ 2	teils/teils 3	eher positiv 4	sehr positiv 5
Meine Verwaltungsspitze	○	○	○	○	○
Mein Vorgesetzter	○	○	○	○	○
Meine Fachkollegen und/oder Mitarbeiter	○	○	○	○	○
Andere Personen in meiner Organisationseinheit	○	○	○	○	○

1.d) Allgemeiner Eindruck zur Einführung der Doppik

Bitte geben Sie an, inwieweit Sie den folgenden Aussagen zustimmen:

	stimme überhaupt nicht zu 1	stimme eher nicht zu 2	teils/teils 3	stimme eher zu 4	stimme voll und ganz zu 5
Die Informationen über die im Zuge der Doppik-Einführung eingetretenen Änderungen wurden rechtzeitig mitgeteilt.	○	○	○	○	○
Die Informationen, die ich im Rahmen der Doppik-Einführung erhalten habe, haben meine Fragen zu den Änderungen angemessen beantwortet.	○	○	○	○	○
Ich habe ausreichende Informationen über die Doppik-Einführung erhalten.	○	○	○	○	○
Die Informationen, die ich über die Doppik-Einführung erhalten habe, waren nützlich.	○	○	○	○	○
Ich konnte teilhaben an der Umsetzung der Veränderungen, die sich im Zuge der Doppik-Einführung ergeben haben.	○	○	○	○	○
Ich habe/hatte einen gewissen Einfluss auf die Änderungen, die im Zuge der Doppik-Einführung beabsichtigt waren.	○	○	○	○	○
Ich habe an den Entscheidungsprozessen im Zuge der Doppik-Einführung mitgewirkt (oder hätte mitwirken können).	○	○	○	○	○

2. Persönliches Fazit zur Einführung der Doppik

Bitte geben Sie an, inwieweit Sie den folgenden Aussagen zustimmen:

	stimme überhaupt nicht zu 1	stimme eher nicht zu 2	teils/teils 3	stimme eher zu 4	stimme voll und ganz zu 5
Ich glaube an den Wert der Einführung der Doppik.	○	○	○	○	○
Die Einführung der Doppik ist eine gute Strategie für diese Organisation.	○	○	○	○	○
Die Einführung der Doppik dient einem wichtigen Zweck.	○	○	○	○	○
Die Situation wäre besser ohne die Einführung der Doppik.	○	○	○	○	○
Die Einführung der Doppik war nicht notwendig.	○	○	○	○	○
Die Umsetzung der Doppik-Reform war ein Beispiel für eine erfolgreiche Reformumsetzung.	○	○	○	○	○
Die Bemühungen der Organisation zur Umsetzung dieser Reform waren enttäuschend.	○	○	○	○	○
Die Umsetzung der Doppik wurde allgemein als großer Erfolg in meiner Organisation gewertet.	○	○	○	○	○
Ich persönlich denke, dass die Umsetzung der Doppik-Reform ein Erfolg war.	○	○	○	○	○
Die Umsetzung der Doppik-Reform wurde in meinem Bereich als Erfolg gewertet.	○	○	○	○	○
Ich denke, dass die Einführung der Doppik langfristig die Qualität der Arbeitsergebnisse der Verwaltung erhöht.	○	○	○	○	○
Ich denke, dass die Einführung der Doppik bereits kurzfristig zu einem wirtschaftlicheren Verwaltungshandeln beiträgt.	○	○	○	○	○
Ich denke, dass die Einführung der Doppik bereits zu einer höheren Transparenz geführt hat.	○	○	○	○	○
Insgesamt denke ich, dass die Einführung der Doppik zu einer höheren Generationengerechtigkeit führt.	○	○	○	○	○

3.a) Fragen zu Ihrer Person

Wie alt sind Sie?

Bitte geben Sie eine Zahl an (Bsp. 50 für 50 Jahre):

3.b) Fragen zu Ihrer Person

Welches biologische Geschlecht haben Sie?

Bitte ankreuzen:

- ○ weiblich
- ○ männlich
- ○ anderes
- ○ keine Antwort

3.c) Fragen zu Ihrer Person

Waren Sie vor Ihrer Tätigkeit in der öffentlichen Verwaltung in der Privatwirtschaft oder im sogenannten dritten Sektor (Nichtregierungsorganisationen, Wohlfahrtsträger etc.) tätig?

Bitte ankreuzen:

○ ja ○ nein

3.d) Fragen zu Ihrer Person

Bekleiden Sie eine leitende Position in Ihrer Organisation (Fachdienstleiter, Sachgebietsleiter, Kämmerer, Dezernent etc.)?

Bitte ankreuzen:

○ ja ○ nein

3.e) Fragen zu Ihrer Person

In welcher Verwaltung sind Sie tätig?

Bitte ankreuzen:

- ○ Kreisfreie Stadt
- ○ Landkreis
- ○ Amt
- ○ Amtsfreie Gemeinde/Stadt

3.f) Fragen zu Ihrer Person

Wie lange arbeiten Sie bereits im öffentlichen Dienst?

Bitte geben Sie eine Zahl an (Bsp. 20 für 20 Jahre):

3.g) Fragen zu Ihrer Person

Was ist ihr höchster Bildungsabschluss?

Bitte ankreuzen:

- ○ Kein Schulabschluss
- ○ Hauptschulabschluss
- ○ Realschulabschluss
- ○ Abitur/Fachabitur
- ○ Abgeschlossene Berufsausbildung
- ○ Fachhochschulabschluss/ Verwaltungsfachwirt/in
- ○ Universitätsabschluss
- ○ Promotion
- ○ Anderer Bildungsabschluss

4.a) Fragen zu Ihrer Organisation

Bitte ankreuzen:

	sehr unwirksam 1	eher unwirksam 2	teils/teils 3	eher wirksam 4	sehr wirksam 5
Inwieweit sind Regeln und Vorschriften an Ihrem Arbeitsplatz grundsätzlich unwirksam bis wirksam?	○	○	○	○	○

4.b) Fragen zu Ihrer Organisation

Bitte ankreuzen:

	sehr gering 1	2	3	4	5	teils/teils 6	7	8	9	10	sehr hoch 11
Inwieweit wirken sich Verwaltungsvorschriften und -verfahren negativ auf die Leistungsfähigkeit ihrer Verwaltung aus?	○	○	○	○	○	○	○	○	○	○	○

4.c) Fragen zu Ihrer Organisation

Verfügt Ihre Organisation über einen aktuellen doppischen Jahresabschluss?

Bitte ankreuzen:

○ ja ○ nein

4.d) Fragen zu Ihrer Organisation

Verfügt Ihre Organisation über einen aktuellen konsolidierten Gesamtabschluss?

Bitte ankreuzen:

○ ja ○ nein

5. Offene Frage (optional)

Was war bzw. ist Ihrer Meinung nach die größte Herausforderung im Zusammenhang mit der Einführung der Doppik?

Sie können hier auch mehrere Aspekte benennen.

Fragebogen absenden

Stand: 2018-06-24 20:51:09

Fragebogen zur Einführung der Doppik auf kommunaler Ebene in Brandenburg

Vielen Dank für Ihre Unterstützung!

Befragung beenden

Appendix B: Forward-translation

Original item: Please indicate how the following people feel about the introduction of the Doppik: My board of directors, my manager, my professional colleagues and subordinates, others in my organization unit.
Translation: Bitte geben Sie an, wie die folgenden Personen Ihrer Meinung nach gegenüber der Doppik eingestellt sind: meine Verwaltungsspitze, mein Vorgesetzter, meine Fachkollegen und/oder Mitarbeiter, andere Personen in meiner Organisationseinheit.
Back translation: Please state your opinion about the following persons' attitude towards the Doppik: my head of administration, my pears and/or employees, other persons in my unit of organization.

Original item: The information about the changes occurred in course of the Doppik-Introduction has been communicated in a timely manner.
Translation: Die Informationen über die im Zuge der Doppik-Einführung eingetretenen Änderungen wurden rechtzeitig mitgeteilt.
Back translation: The Information about changes occurring in course of/due to the introduction of the Doppik were communicated in a timely manner.

Original item: The information I have received in course of the Doppik-Introduction has adequately answered my questions about the changes.
Translation: Die Informationen, die ich im Rahmen der Doppik-Einführung erhalten habe, haben meine Fragen zu den Änderungen angemessen beantwortet.
Back translation: The Information I received in course of the introduction of the Doppik answered my questions about specific changes adequately.

Original item: I have received adequate information about the Doppik-Introduction.
Translation: Ich habe ausreichende Informationen über die Doppik-Einführung erhalten.
Back translation: I received sufficient information about the introduction of the Doppik.

Original item: The information I have received about the Doppik-Introduction has been useful.
Translation: Die Informationen, die ich über die Doppik-Einführung erhalten habe, waren nützlich.
Back translation: The information I received on the introduction of the Doppik were useful.

Original item: I have been able to participate in the implementation of the changes that have occurred in course of the Doppik-Introduction.
Translation: Ich konnte teilhaben an der Umsetzung der Veränderungen, die sich im Zuge der Doppik-Einführung ergeben haben.
Back translation: I was able to take part in the implementation of changes that occurred in course of the introduction of the Doppik.

Original item: I have/had some control over the changes that have been proposed in course of the Doppik-Introduction.
Translation: Ich habe/hatte einen gewissen Einfluss auf die Änderungen, die im Zuge der Doppik-Einführung beabsichtigt waren.
Back translation: I have/had a certain influence on the changes that were intended with the introduction of the Doppik.

Original item: I have (or could have) had input into the decisions being made about the Doppik-Introduction.
Ich habe an den Entscheidungsprozessen im Zuge der Doppik-Einführung mitgewirkt (oder hätte mitwirken können).
Back translation: I have (or could have) contributed to the decision-making processes in course of the introduction of the Doppik.

Original item: There is and was enough personnel for the introduction of the Doppik.
Translation: Im Zuge der Doppik-Einführung gibt und gab es ausreichend Personal.
Back translation: In course of the introduction of the Doppik, there is and was enough staff.

Original item: There are and were sufficient financial resources for the introduction of the Doppik.
Translation: Im Zuge der Doppik-Einführung stehen und standen ausreichende finanzielle Mittel zur Verfügung
Back translation: In course of the introduction of the Doppik, there are and were sufficient funds available.

Original item: I believe in the value of the introduction of the Doppik.
Translation: Ich glaube an den Wert der Einführung der Doppik.
Back translation: I trust in the value of the introduction of the Doppik.

Original item: The introduction of the Doppik is a good strategy for this organization.
Translation: Die Einführung der Doppik ist eine gute Strategie für diese Organisation.
Back translation: The introduction of the Doppik is a good strategy for this organization.

Original item: The introduction of the Doppik serves an important purpose.
Translation: Die Einführung der Doppik dient einem wichtigen Zweck.
Back translation: The introduction of the Doppik serves an important purpose.

Original item: Things would be better without the introduction of the Doppik.
Translation: Die Situation wäre besser ohne die Einführung der Doppik.
Back translation: The situation would be better without the introduction of the Doppik.

Original item: The introduction of the Doppik was not necessary.
Translation: Die Einführung der Doppik war nicht notwendig.
Back translation: The introduction of the Doppik was unnecessary.

Original item: The implementation of the Doppik was an example of a successful reform implementation.
Translation: Die Umsetzung der Doppik-Reform war ein Beispiel für eine erfolgreiche Reformumsetzung.
Back translation: The implementation of the Doppik was an example for a successful implementation of reforms.

Original item: The organization's implementations effort on this reform was disappointing
Translation: Die Bemühungen der Organisation zur Umsetzung dieser Reform waren enttäuschend.
Back translation: The organization's efforts made to implement the reform were disappointing.

Original item: The implementation of the Doppik was generally considered a great success in the organization.
Translation: Die Umsetzung der Doppik wurde allgemein als großer Erfolg in der Organisation gewertet.
Back translation: In general, the implementation of the Doppik was seen as a big success in the organization.

Original item: I personally think the implementation of the Doppik was a success.
Translation: Ich persönlich denke, dass die Umsetzung der Doppik-Reform ein Erfolg war.
Back translation: Personally, I think the implementation of the Doppik was a success.

Original item: The implementation of the reform was considered a success in my area.
Translation: Die Umsetzung der Doppik-Reform wurde in meinem Bereich als Erfolg gewertet.
Back translation: The implementation of the Doppik was seen as a success in my unit.

Original item: I think that the introduction of the Doppik', in the long term, will lead to an increase in the quality of administrative output.
Translation: Ich denke, dass die Einführung der Doppik langfristig die Qualität der Arbeitsergebnisse der Verwaltung erhöht.
Back translation: I think that the introduction of the Doppik enhances the quality of the administration's work results in the long term.

Original item: I think that the introduction of the Doppik', in the short-term, will lead to administrations acting more economically.
Translation: Ich denke, dass die Einführung der Doppik kurzfristig zu einem wirtschaftlicheren Verwaltungshandeln beiträgt.
Back translation: I think that the introduction of the Doppik contributes to a short-term increase of the administration's economic feasibility.
Corrected translation: Ich denke, dass die Einführung der Doppik bereits kurzfristig zu einem wirtschaftlicheren Verwaltungshandeln beiträgt.

Original item: I think that the introduction of the Doppik' has already led to a better transparency.
Translation: Ich denke, dass die Einführung der Doppik bereits zu einer höheren Transparenz geführt hat.
Back translation: I think that the introduction of the Doppik already increased transparency.

Original item: Overall, I think that the introduction of the Doppik' leads a higher generational equity.
Translation: Insgesamt denke ich, dass die Einführung der Doppik zu einer höheren Generationengerechtigkeit führt.
Back translation: All in all, I think that the introduction of the Doppik increases the level of inter-generation fairness.

Original item: The extent to which workplace rules are ineffective to effective (from very ineffective to very effective).
Translation: Inwieweit sind Regeln und Vorschriften an Ihrem Arbeitsplatz grundsätzlich unwirksam bis wirksam?
Back translation: In how far are rules and regulations at your place of employment generally ineffective to effective?

Appendix C: Cover/consent letter

Sehr geehrte/r Frau/Herr XY,

die Mehrheit der Gebietskörperschaften in Deutschland hat ihr Haushalts- und Rechnungswesen von der traditionellen Kameralistik auf die ressourcenverbrauchsorientierte Doppik umgestellt. Bisher fehlen wissenschaftliche Untersuchungen darüber, welche Faktoren für den Erfolg oder den Misserfolg dieses Reformprozesses in den Gebietskörperschaften in Brandenburg verantwortlich sind.

Durch diese Abschlussarbeit an der Universität Potsdam möchten wir erste wissenschaftliche Erkenntnisse zu den Erfolgsfaktoren bei der Doppik-Umstellung für das Land Brandenburg sammeln. Für dieses Forschungsvorhaben werden die MitarbeiterInnen der Kämmereien/Finanzverwaltungen und Rechnungsprüfungsämter der kreisfreien Städte, Landkreise, Ämter sowie amtsfreien Gemeinden befragt.

Mit Ihrer Teilnahme leisten Sie einen entscheidenden Beitrag, Erfolgsfaktoren für die Doppik-Umstellung zu determinieren.
Wir versichern Ihnen, dass der Schutz der Anonymität aller TeilnehmerInnen und die Vertraulichkeit der Antworten für uns höchste Priorität haben. Eine Zuordnung von Antworten zu bestimmten Personen wird und kann nicht erfolgen. Die Umfrage wird durch die Universität Potsdam durchgeführt und ist ausschließlich wissenschaftlich motiviert.

Über den folgenden Link kommen Sie zur Umfrage. Das Ausfüllen des Fragebogens dauert ca. zehn bis 15 Minuten. Wir bitten Sie, dass ausschließlich die von uns angeschriebenen Personen den Fragebogen ausfüllen. Falls die E-Mail an einer zentralen Stelle eingegangen ist, bitten wir um die Weiterleitung an die angeschriebene Person.

Link: https://survey.uni-potsdam.de/s/doppikBB/de.html

Wir danken Ihnen herzlich für Ihre Unterstützung und möchten Sie bitten, den Fragebogen spätestens bis zum 30. Juni 2018 auszufüllen.

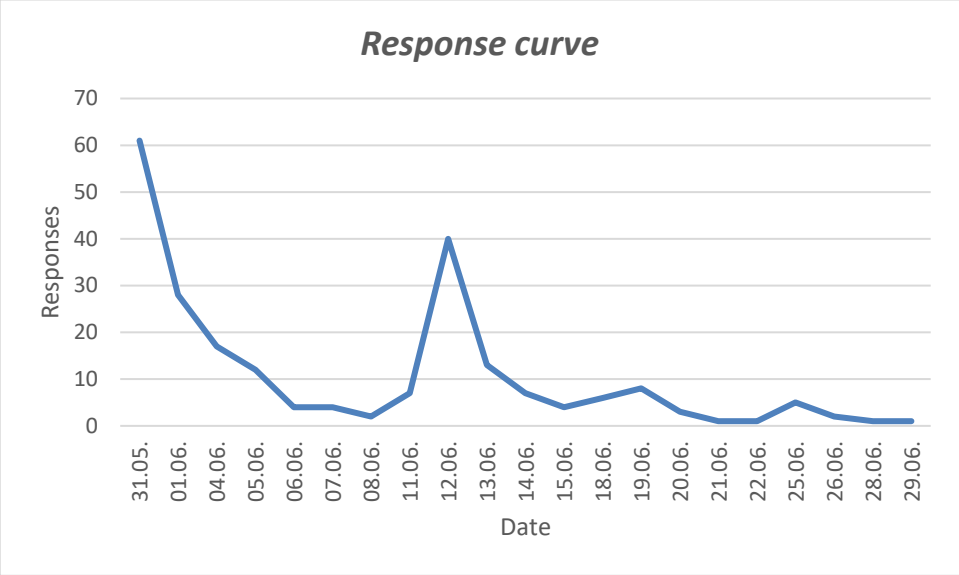
Wenn Sie an den Ergebnissen dieser Studie interessiert sind, stellen wir Ihnen diese gern bereit. Hierfür genügt es, eine formlose E-Mail an die Adresse joholtz@uni-potsdam.de zu schicken. Für weitere Fragen stehen wir Ihnen unter der angegebenen E-Mail-Adresse gern zur Verfügung.

Mit freundlichen Grüßen

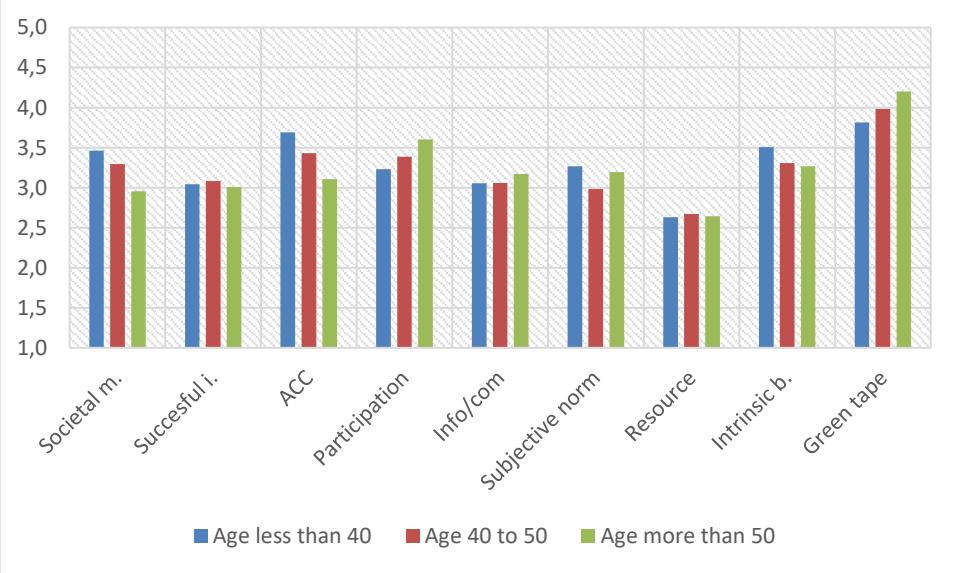
Johannes Holtz

Johannes Niklas Holtz
Universität Potsdam
Mobil: +49 1726039541
Email: joholtz@uni-potsdam.de

Appendix D: Response curve

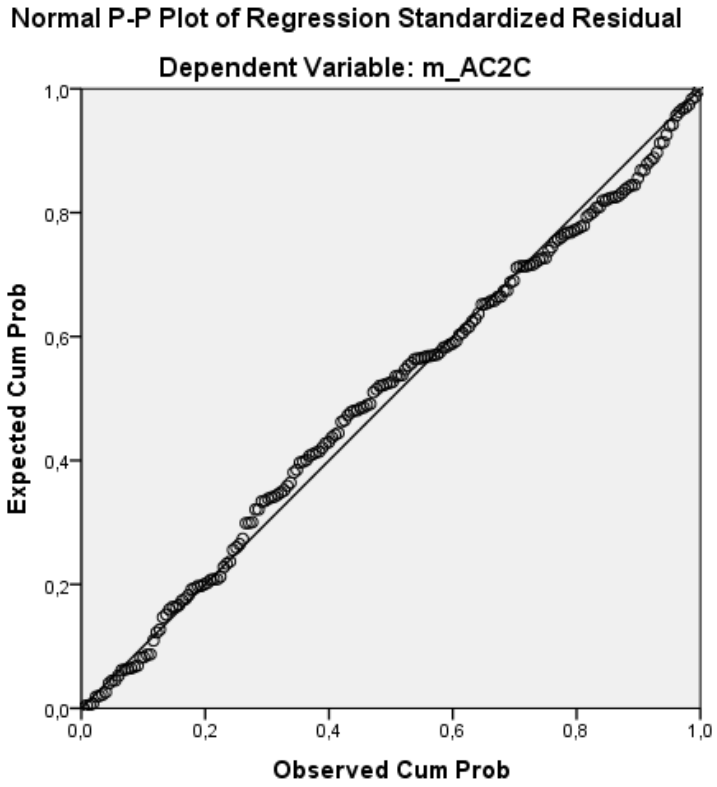


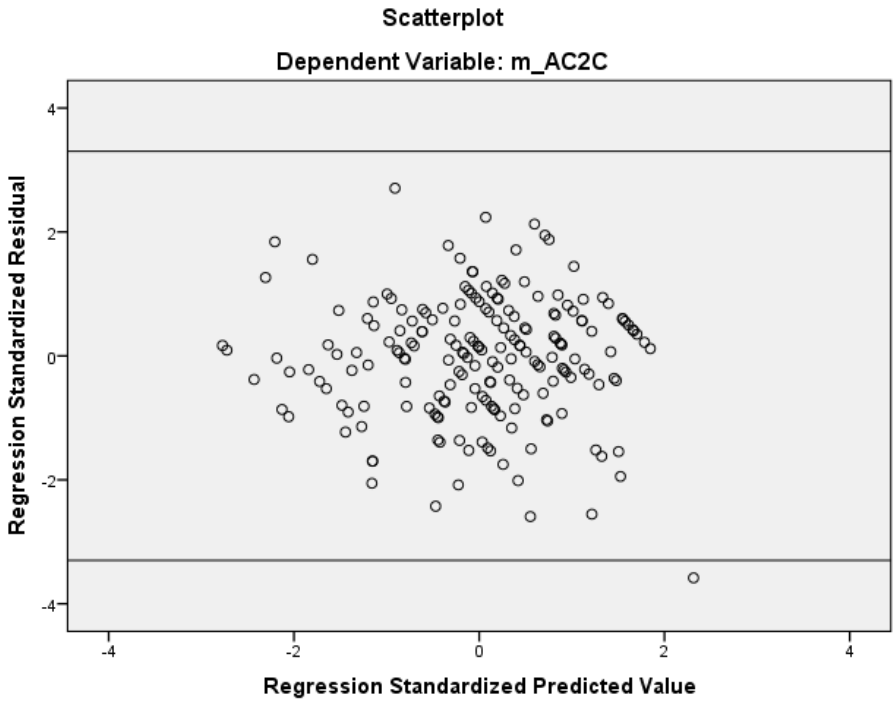
Appendix E: Descriptive statistics



Variables depending on age

Appendix F: Hierarchical multiple linear regression I





ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24,534	6	4,089	4,345	,000[b]
	Residual	187,259	199	,941		
	Total	211,792	205			
2	Regression	149,167	9	16,574	51,872	,000[c]
	Residual	62,626	196	,320		
	Total	211,792	205			
3	Regression	150,706	11	13,701	43,511	,000[d]
	Residual	61,086	194	,315		
	Total	211,792	205			
4	Regression	155,887	14	11,135	38,042	,000[e]
	Residual	55,906	191	,293		
	Total	211,792	205			
5	Regression	155,887	15	10,392	35,320	,000[f]
	Residual	55,906	190	,294		
	Total	211,792	205			

a. Dependent Variable: m_ACC

b. Predictors: (Constant), dummy_annual, tenure, higher_edu, Amt, dummy_leadership, age

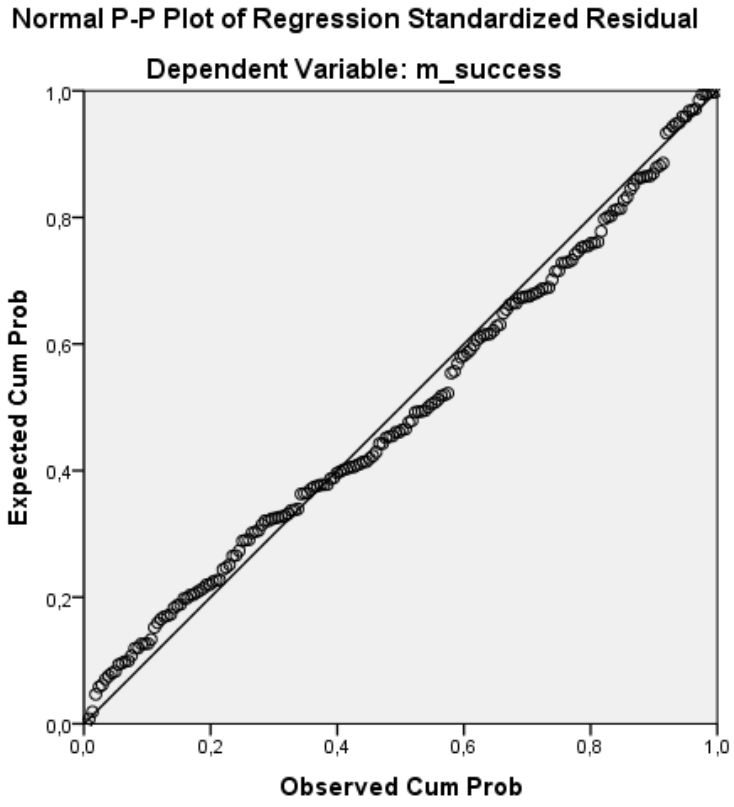
c. Predictors: (Constant), dummy_annual, tenure, higher_edu, Amt, dummy_leadership, age, m_intrinsic, m_extrinsic, m_socialb

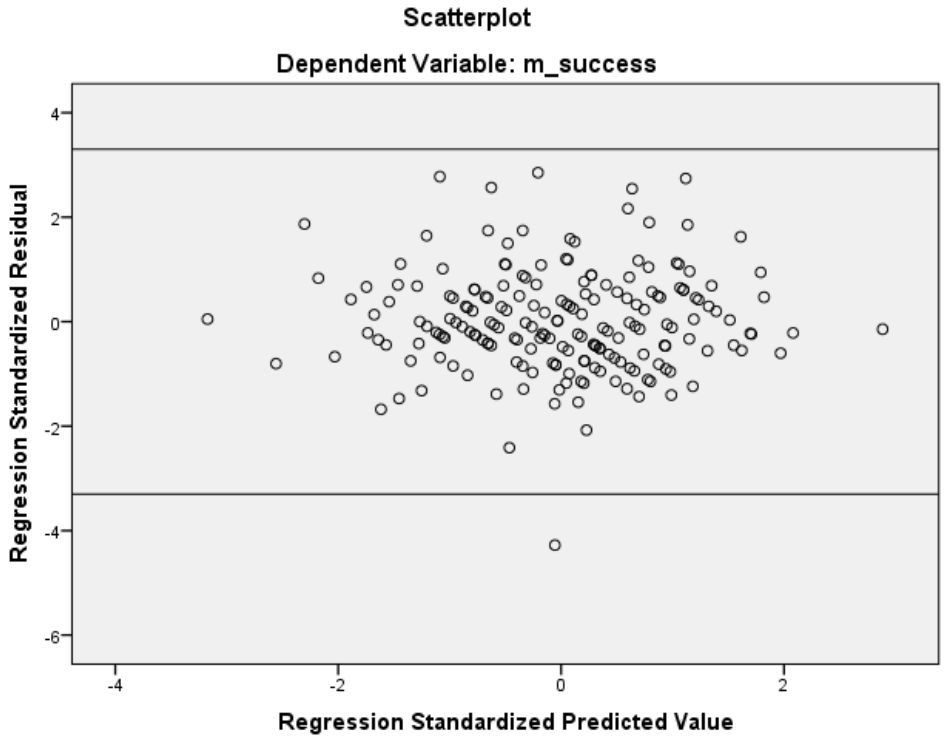
d. Predictors: (Constant), dummy_annual, tenure, higher_edu, Amt, dummy_leadership, age, m_intrinsic, m_extrinsic, m_socialb, m_infocom, m_participation

e. Predictors: (Constant), dummy_annual, tenure, higher_edu, Amt, dummy_leadership, age, m_intrinsic, m_extrinsic, m_socialb, m_infocom, m_participation, green_tape, m_support, m_resource

f. Predictors: (Constant), dummy_annual, tenure, higher_edu, Amt, dummy_leadership, age, m_intrinsic, m_extrinsic, m_socialb, m_infocom, m_participation, green_tape, m_support, m_resource, dummy_private

Appendix G: Hierarchical multiple linear regression II





ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10,653	7	1,522	2,631	,013[b]
	Residual	114,511	198	,578		
	Total	125,164	205			
2	Regression	35,886	9	3,987	8,754	,000[c]
	Residual	89,278	196	,456		
	Total	125,164	205			
3	Regression	58,376	11	5,307	15,415	,000[d]
	Residual	66,788	194	,344		
	Total	125,164	205			
4	Regression	75,392	14	5,385	20,665	,000[e]
	Residual	49,772	191	,261		
	Total	125,164	205			
5	Regression	84,522	15	5,635	26,342	,000[f]
	Residual	40,642	190	,214		
	Total	125,164	205			

a. Dependent Variable: m_success

b. Predictors: (Constant), higher_edu, dummy_private, dummy_annual, age, Amt, dummy_leadership, tenure

c. Predictors: (Constant), higher_edu, dummy_private, dummy_annual, age, Amt, dummy_leadership, tenure, m_intrinsic, m_extrinsic

d. Predictors: (Constant), higher_edu, dummy_private, dummy_annual, age, Amt, dummy_leadership, tenure, m_intrinsic, m_extrinsic, m_infocom, m_participation

e. Predictors: (Constant), higher_edu, dummy_private, dummy_annual, age, Amt, dummy_leadership, tenure, m_intrinsic, m_extrinsic, m_infocom, m_participation, green_tape, m_support, m_resource

f. Predictors: (Constant), higher_edu, dummy_private, dummy_annual, age, Amt, dummy_leadership, tenure, m_intrinsic, m_extrinsic, m_infocom, m_participation, green_tape, m_support, m_resource, m_AC2C

Ehrenwörtliche Erklärung

Hiermit versichere ich, dass ich die vorliegende Arbeit selbständig und ohne Benutzung anderer als der angegebenen Quellen und Hilfsmittel erstellt habe.

Die vorliegende Arbeit ist frei von Plagiaten. Alle Ausführungen, die wörtlich oder inhaltlich aus anderen Schriften entnommen sind, habe ich als solche gekennzeichnet und die Quellen im Literaturverzeichnis aufgeführt.

Diese Arbeit wurde in gleicher oder ähnlicher Form noch bei keinem an-deren Prüfer oder anderen Prüferin als Prüfungsleistung eingereicht und ist auch noch nicht veröffentlicht.

Potsdam, 27. August 2018

Johannes Holtz

Zustimmung zur Überprüfung auf Plagiate

Ich bin darüber informiert, dass meine Arbeit zur Sicherstellung ihrer Rechtmäßigkeit mit Hilfe einer Plagiatssoftware überprüft wird. Ich bin mir bewusst, dass meine anonymisierte Arbeit hierzu in einem gesicherten Bereich auf einem Server auch außerhalb der Europäischen Union analysiert und hierfür temporär gespeichert wird. Hierbei werden keine personenbezogenen Daten übermittelt.

Hiermit bestätige ich mein Einverständnis zur Überprüfung meiner Arbeit mit Hilfe einer Plagiatssoftware unter oben genannten Bedingungen.

Potsdam, 27. August 2018

Johannes Holtz

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