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The impact of goal setting on the individual work performance of German civil servants – Empirical evidence from local administrations

goal setting; human resource controlling; local administrations; public sector accounting; public service motivation; work performance

On the basis of goal-setting theory we developed a survey to gain important insights into the German administrative goal-setting process and its influencing factors. To contribute to the specific motivation of employees in local public administrations, we included in our research the notion of public service motivation as a potential driver of work performance. This study provides empirical evidence that the setting of specific goals has a positive impact on the individual work performance of German civil servants. Public service motivation exists and shows the most positive impact on individual work performance. Employee participation in the goal setting process also has an impact on individual work performance.

I. Introduction and research questions

In 2005, the German government decided to implement a goal-setting system in public institutions that was already tested in the private sector. It was assumed that the benefit of such a system – a higher performance of the employees – could also be realised in public institutions (Oechsler/Eichenberg 2002). This logic implies a similar motivational pattern among private and public sector employees but runs in contrast to conventional ideas in the public administration literature. To date, there has been “no conclusive empirical evidence that such an approach has effectively helped to improve motivation and performance within the public service” (Cardona 2007, pp. 2).

Scholars have shown that the motivation to work on public tasks is different from the motivational pattern of private sector employees (Ingraham/Murlis/Peters 1999; Selden/Brewer 2000). Before installing performance-based incentives and adopting a private sector-proven instrument in public administrations, it is necessary to gain a deeper understanding of the values and reward preferences of German civil servants. However, to the best of our knowledge, the question of whether goal setting really fits the German public sector has not been analysed during the law-making process or in the time after the implementation of goal setting. Thus, the following research questions arise:

- Does goal setting really have a positive impact on the individual work performance of German civil servants?
- What are the key elements of the goal-setting process of public institutions?
- What is the role of public service motivation (PSM) in the goal-setting process of public institutions?

We focus our empirical study on local administrations, which are the pioneers of the New Public Management (NPM) movement in Germany (Ridder/Bruns/Spier 2005). The remainder of this paper is structured as follows: In the next section we discuss central theoretical issues and existing empirical studies on goal setting in the private and public sectors. In section III. we describe our research design. Section IV. shows the empirical results of our study. In section IV. we interpret our results and discuss some implications for public institutions as well as avenues for future research.

II. Literature review

Setting individual goals is closely linked with goal-setting theory, which is used as the theoretical basis for our study. The main assumption of goal-setting theory is that goals immediately regulate human behaviour by directing and sustaining individuals' efforts in performing a particular task (Ryan 1970). Therefore, setting goals has a positive impact on an individual's performance. Such a positive effect of goal setting on the performance of public institutions was only empirically validated on an organisational level by Wilk/Redmon (1990), Rodgers/Hunter (1992) and Brewer/Selden (2000). In our study, we focus on the effect of goal setting on individual employees' performance in the public sector.

As the previous literature indicates, the effect of goal setting on employees' performance is associated with multifactorial aspects, which will be discussed in the following sections. Because of contradictory previous empirical findings in similar settings, we will later use an explorative approach to test the relevance of factors that influence the employees' performance in a goal-setting context of local administrations. As a result, we do not develop theoretical arguments to define the specific interrelations of the different factors *ex ante*.

Goal difficulty and goal specificity: In a review of the effects on employee performance in the public sector, Wright (2004) found a positive influence of job goal difficulty and job goal specificity on work motivation. Wiese/Freund (2005) found in a study on young professionals in Germany that only those professionals who perceived their goals to be difficult stated a change in behaviour and showed a higher personal investment. In German local administrations, employees are confronted with tasks of different levels of difficulty, depending on their job descriptions and their positions in the administration. Therefore, we assume that goal difficulty might have a positive impact on employees' performance in local administrations.

Task specificity is an important differentiating factor of local administrations. In smaller administrations, the level of specification should naturally be lower than it is in larger administrations with many more employees (Anessi-Pessina/Nasi/Steccolini 2008; Hirsch/Nitzl/Schauß 2015). The more a public employee can work in a more specific capacity, the more qualified he or she probably is and the better he or she is able to perform his or her tasks and fulfil his or her

goals. Additionally, we know from previous studies that more explicit goals lead to reduced variances in employee performance (Locke 1996) and that specific goals enable employees to adjust the level of their effort for goal attainment (Latham 2004). Therefore, we assume that goal specificity might have a positive impact on employees' performance in local administrations.

Self-efficacy: The concept of self-efficacy has been proven in the goal-setting process (Locke/Latham 2002). Self-efficacy is a part of social cognitive theory (Bandura 1997) and describes people's beliefs in their individual capabilities to attain a task or, in this case, a goal (Bandura 2013). To reach a goal, individual skills and the efficacy beliefs to use those skills well are required (Bandura 1997). In experiencing a particular task, employees are provided with cues about whether they have the capability to reach a defined goal. Their existing capabilities are therefore the basis of self-efficacy (Seijts/Latham 2011). In the context of goal setting, it is assumed that employees with high self-efficacy perform better because they try harder to reach a goal. Employees with low self-efficacy perform worse because they show lower effort and sometimes even resign (Bandura 1982). Three major reasons for those propositions are listed. First, a high level of self-efficacy leads to more dedication and perseverance in difficult undertakings as long as the employee believes in reaching the goal (Wright 2007). Second, people with high self-efficacy underline their goals in front of others because they believe in reaching the goal. They enjoy measuring their individual performance and therefore work hard for their success (Bandura 1994). Third, high self-efficacy leads to critical self-reflection. Employees with high self-efficacy question their own performance and analytically develop new strategies to reach the goal (Bandura 2013). Many studies show that self-efficacy has the proposed direct effect on performance (Bandura 1997). Additional studies have also shown that self-efficacy mediates the relationship between goals and performance (Wright 2003; Seijts/Latham 2001). Because of those empirical findings and on the basis of social cognitive theory, we also expect a significant relationship between goals, self-efficacy and individual work performance in local administrations in Germany. Hence, we integrated self-efficacy in our research.

Goal commitment: Goal commitment is closely connected to self-efficacy. Goal commitment is defined as "a volitional psychological bond reflecting dedication to, and responsibility for, a particular target. Applied to goals, this definition essentially captures the pledging of oneself to a goal" (Klein/Cooper/Monahan 2013, p. 67). The main premise of goal-setting theory that high and specific goals lead to high performance is based on the high goal commitment of the employee. Locke/Latham/Erez (1988, p. 23) state that it "[...] is virtually axiomatic that if there is no commitment to goals, then goal setting does not work". Goals do not have a motivational effect without commitment (Latham/Locke 1991). A meta-analysis showed a significantly stronger relationship between goal commitment and performance for challenging goals than for easy ones (Klein et al. 1999). Building on these findings, many recent studies have found a significant main effect of goal commitment on individual performance across a variety of contexts and tasks (Klein/Cooper/Monahan 2013). Therefore, goal commitment plays an important role in the relationship between goals and individual performance. In the goal-setting process, goal commitment has been confirmed to act as a moderator (Locke/Latham 2006). To analyse whether these assumptions are also valid in the German local administrative goal-setting process, we included goal commitment in our study.

Employee participation: Guidelines for practitioners in the local German public sector argue that in a goal-setting meeting, a supervisor should stipulate individual goals with every subordinate in his department (Kommunale Gemeinschaftsstelle für Verwaltungsmanagement 1995). Nevertheless, the effect of this participative element of the goal-setting process on individual work performance has proven contradictory to date. Several scholars found significant positive relationships between participation and goal setting (e.g. Erez/Earley/Hulin 1985; Hollenbeck/Williams/Klein 1989; Edwards 2011). In a meta-analysis, Wagner et al. (1997, p. 50) showed a “cognitive benefit” of participation because information exchange between a better-informed employee and his supervisor was stimulated. Seijts/Latham (2012, p. 2) concluded that “participation among knowledgeable employees increases the likelihood of them understanding what is required to perform effectively”; Leisink (2004) noted that it is important to involve employees in tasks that relate to core public-serving aspects of their work. Other scholars have found little or no relationship between participation and goal setting in the public sector (Birnberg/Luft/Shields 2007). We follow the advice of Cawley/Keeping/Levy (1998, p. 615) that “future research should investigate the effects of participation on employees’ reactions,” and we therefore include participation in our research model.

Public service motivation: Rainey (1982, p. 291) compared private and public institutions in the US and found that the mean scores of “public managers are higher, to a statistically significant degree, on the items concerning public service and work that is helpful to others”. Perry/Wise (1990) studied the motivational differences between private and public employees in the USA. They developed the multidimensional construct of “public service motivation” and defined it as “an individual’s predisposition to respond to motives grounded primarily or uniquely in public institutions and organisations” (Perry/Wise 1990, p. 368). Since then, public service motivation has been defined in a number of similar, supplementary and compatible ways. Brewer/Selden (1998, p. 417) describe public service motivation as “the motivational force that induces individuals to perform meaningful [...] public community and social service”; Rainey/Steinbauer (1999, p. 23) define it as “general altruistic motivation to serve the interests of a community of people, a state, a nation or humankind”. To fit into the international, non-Anglo-American context, Vandenabeele (2007) constructed an umbrella definition that includes employees’ personal values. He defines public service motivation as “the beliefs, values and attitudes that go beyond self-interest and organisational interest, that concern the interest of a larger political entity and that motivate individuals to act accordingly whenever appropriate” (Vandenabeele 2007, p. 547). This individual-level concept broadly denotes a subset of intrinsic motivations concerned with the well-being of the community and with serving the public good.

It is important to outline the difference between public service motivation and public sector motivation. The latter concept focuses on the extrinsic motives associated with government organisations, e.g., job security and pension plans (Perry/Hondeghem 2008). In many tasks in the public sector, those intrinsic and extrinsic motives depend on each other and therefore interact and overlap. Overall “public service motivation translates into highly valuing obligation-based intrinsic motives but not enjoyment-based ones” and is a trait characteristic of government employees (Houston 2011, p. 769). For Germany and Austria, Egger-Peitler/Hammerschmidt/Meyer (2010) collected data from 609 public employees holding leadership positions. The authors found that public executives in the two German-speaking countries are intrinsically moti-

vated by their public duty but that extrinsic motivation has a greater impact than public service motivation on the managers' change orientation and leadership style. Nevertheless, based on the theoretical ideas of Rainey (1982) and others, we assume that public service motivation could influence an employee's performance in local public administrations. Especially in local administrations where employees are confronted much more directly with citizens' needs and demands compared to those on the federal and state levels, the motivation to serve the public should be relevant.

III. Research design

After identifying the major elements of the goal-setting process in German local administrations, we selected the items for our survey. One has to bear in mind that several weaknesses of public sector research still exist. In particular, key variables are often questionably operationalised (Brewer 2008). To avoid this criticism, we only employ items that have been confirmed to be valid and reliable in former studies. Most of the items we use had to be translated into the German language. As frequently used in cross-cultural surveys, we employ a retranslation procedure to ensure semantic, conceptual and normative equivalence (Harkness/Vijver/Mohler 2002; Behling/Law 2000). For all variables, we used self-reported survey items. The response scale associated with all items is scored on a five-point Likert scale from strongly disagree (1) to strongly agree (5), with negative items recoded.

We operationalise "goal difficulty", "goal specificity" and "employee participation" with the items of Locke/Latham's (1990 b) goal-setting questionnaire, which was already translated into German and tested in a research project by Putz/Lehner (2002). All three of the variables are measured by four items. The operationalisation of public service motivation is more complex. Public service motivation consists of rational, norm-based, and affective motives (Perry/Wise 1990). In his original study, Perry (1996) identified a four-dimensional scale to measure public service motivation composed of the following dimensions: the attraction to policymaking, the commitment to public interest, compassion and self-sacrifice. In spite of these dimensions, many public sector scholars do not include all dimensions and items in their research. An aggregated measure of public service motivation has been regularly used. Thus, the four dimensions cannot be analysed in detail, and the findings cannot be compared (Kim 2011; Anderfuhren-Biget et al. 2010). Furthermore, items from Perry's original measurement model, which accounted for the special Anglo-American administration, are used in many international studies, although several items do not fit into the peculiarities of other countries. For this reason, the dimensions are sometimes invalid and unreliable (Kim 2011; Vandeabeele/Walle 2008). Egger-Peitler/Hammerschmidt/Meyer (2010), using Perry's initial measurement scale, could not confirm all dimensions in the Austrian and German public sectors, which is not surprising because words such as "patriotism" have negative connotations, especially in Germany. The term "patriotism" is an item of the original dimension of compassion, which is now distorted. For these reasons, several researchers suggested the use of an international measurement scale (Vandeabeele 2009; Castaing/Valadier 2006). We follow this advice and draw on Kim et al.'s (2013) international items of public service motivation. Goal commitment is measured by employing

five items from Klein et al. (2001). The German translation is adopted from a research project by Bipp/Kleingeld (2011). To include self-efficacy in our survey, we use eight items of the new general self-efficacy scale (Chen/Gully/Eden 2001). In the current literature on public sector research, it has been criticised that individual performance is often measured by employees' pay grade level as a proxy (Brewer 2008). Given that the scope of individual performance is broad and that diverse forms of operationalisation exist, we employ five items by Wright (2007), Anderfuhren-Biget et al. (2010) and Vandenabeele (2011) to evaluate the level of individual work performance.

IV. Empirical results

We collected the data for our study with an online survey of the local employees of two municipalities in north-western Germany. The selection of those local administrations was based on the criteria of the implementation status of goal setting in public administrations. In both municipalities, individual goal setting was implemented in 2007. Therefore, experience with this tool existed at least for five years at the time of the study. In August 2012 and January 2013, the civil servants of the two municipalities received an email in which they were encouraged to participate in our survey with a link to the online questionnaire attached. The employees were encouraged by their executives to participate in the study: anonymity was guaranteed. The civil servants were allowed to complete the questionnaire during regular working hours. The accompanying cover letter outlined only the title of the academic research. It did not mention details or backgrounds of the topic to avoid a response bias.

The questionnaire provided 57 closed-ended questions including all items of the above-selected variables plus socio-demographic background information. The survey covered a sample of 521 public sector employees. A total of 111 usable responses were returned, yielding a response rate of 21.3 %. Table 1 describes the characteristics of the participants. All respondents were part-time or full-time public servants with a broad variety of job descriptions, which is typical for local administrations. Female civil servants were slightly the majority in the sample, which is in line with our expectations because more female than male public servants are employed by both local governments. Correspondingly, the other characteristics of the sample such as age and tenure in the public sector are typical for the population from which the sample was drawn. To analyse the elements of goal setting in the German public sector, we checked the internal consistency by measuring Cronbach's alpha. Internal consistency below the .60 threshold is considered critical (Kline 1998). For self-reported scales, a minimum of .70 is suggested for research purposes (Nunnally 1978). The Cronbach's alphas of all variables are above the recommended threshold. Furthermore, the results of a confirmatory factor analysis show that all items have measures of sampling adequacy superior to the .60 threshold and sufficient communality values. This leads to the conclusion that all items used in this study are part of the scales of their variables.

	Municipality A	Municipality B	Total
Respondents	69	42	111
Response Rate	18.7 %	27.8 %	21.3 %
Gender			
male	25	14	39
female	35	27	62
Age	Ø 43.4	Ø 42.1	Ø 43.0
< 25 years	6	2	8
25 - 34 years	10	8	18
35 - 44 years	14	12	26
45 - 54 years	16	13	29
> 54 years	14	4	18
no answer	9	3	12
Position			
managerial	31	18	49
non-managerial	29	18	47
no answer	9	6	15
Tenure in the public sector	Ø 20.6	Ø 15.7	Ø 19.0
< 6 years	10	11	21
6-10 years	5	1	6
11 - 15 Jahre	8	8	16
16 - 20 years	8	12	20
21 - 25 years	12	3	15
> 25 years	17	6	23
no answer	9	1	10
Date of the survey	2012	2013	2012/2013
Implementation of Goal-Setting	2007	2007	2007

Table 1: Background of the respondents (n=111)

Source: Authors' compilation

We measured the mean values, bivariate correlations and Cronbach's alphas of each variable by employing IBM SPSS Statistics 22. The statistical results are presented in table 2.

Variable	Mean values	Standard deviation	1	2	3	4	5	6	7
1 Goal Difficulty	2.16	.843	(.842)						
2 Goal Specificity	3.99	.634	-.083	(.614)					
3 Employee Participation	3.50	1.082	-.189	.330**	(.838)				
4 Public Service Motivation	3.91	.480	-.079	.090	.200*	(.725)			
5 Goal Commitment	3.93	.813	-.135	.340**	.314**	.201*	(.781)		
6 Self-Efficacy	4.17	.509	-.254**	.270**	.099	.010	.249*	(.878)	
7 Work Performance	4.44	.471	.002	.346**	.182	.235*	.170	.585**	(.831)

** = $p \leq 0,01$ (2-sided); * = $p \leq 0,05$ (2-sided); Cronbach's alpha in parentheses

N from 103 to 111, depending on the variable

Table 2: Mean values and bivariate correlations for the full sample

Source: Authors' compilation

Table 2 shows that almost all mean values are higher than 2.5. Only the perceived level of goal difficulty of the local respondents is relatively low (2.16).

An analysis of the bivariate correlations shows that quite a few variables significantly positively correlate. In line with goal-setting theory, goal specificity shows the assumed positive and significant correlation with individual work performance. It also correlates significantly positively with employee participation and goal commitment. Goal difficulty only significantly correlates with one variable: self-efficacy. Employee participation significantly correlates with goal specificity and goal commitment. Self-efficacy significantly correlates with goal difficulty, goal specificity, goal commitment and work performance.

PSM is rated above the mean score of the Likert scale. In combination with the significant correlation between public service motivation and individual work performance, this result indicates a connection between public service motivation and the goal-setting process in German municipalities. To analyse each of the four dimensions of PSM, we evaluated the mean values, bivariate correlations and Cronbach's alphas of these constructs. The statistical results are presented in table 3.

Variable	Mean values	Standard deviation	1	2	3	4	5
1 Attraction to Public Service	3.99	.689	(.799)				
2 Commitment to Public Values	4.58	.455	.350**	(.701)			
3 Compassion	3.98	.713	.543**	.386**	(.814)		
4 Self Sacrifice	2.86	.766	.378**	.254**	.489**	(.820)	
5 PSM Overall Average	3.91	.480	.728**	.536**	.787**	.724**	(.727)

** = $p \leq 0,01$ (2-sided); * = $p \leq 0,05$ (2-sided); Cronbach's Alpha in parentheses

N from 103 to 111, depending on the variable

Table 3: Mean values and bivariate correlations of PSM

Source: Authors' compilation

The correlations of all four dimensions are significant. These results indicate that all dimensions of the international scale of PSM are relevant in the German public sector.

As usual in the public management research (Pandey/Stazyk 2008), we controlled for the socio-demographic control variables of gender, age, and length of employment in the public sector (in years). In addition, we controlled for position as an influencing factor. As a proxy for management positions in the public sector, we used employees' upper and higher pay grade levels. As a proxy for non-managerial, subordinate positions, we used employees' lower and middle pay grade levels in civil service. An evaluation of the control variables shows no significant influences on the results of the whole sample. For example, the bivariate correlations of male and female employees are not significantly different. This finding is in line with those of former studies (e.g. Ritz/Waldner 2011).

V. Discussion and future research

The first crucial finding of this research project is that our empirical results in German local administrations confirm Locke/Latham's (1990 b) proposition that specific goals are related to an employee's higher performance. This result is in line with previous international findings (Wright 2001; Latham/Borgogni/Fassina 2008).

Our empirical findings indicate a low level of goal difficulty. On the one hand, this finding offers the opportunity to set more difficult goals. On the other hand, we expected a higher level of these goals because in the participating municipalities, goals were set for at least five years. Interviews conducted in addition to the survey revealed that in many cases, executives do not want to experience conflict with their employees and therefore agree on relatively easy goals. This finding certainly presents a topic for further research.

Goal difficulty only correlates with self-efficacy. This correlation is negative, which was assumed. The following explanation for this finding seems reasonable: If a goal is close to or even above an employee's individual skill level, he or she feels that he/she cannot reach the goal and does not believe in his/her own competences. Thus, his or her self-efficacy decreases. We did not find a positive relationship between goal difficulty and individual work performance. Yearta/Maitlis/Briner (1995) found a similar result. A major reason for this result, especially in this study, might be the very low level of perceived goal difficulty. To explain this finding, goal difficulty has to be combined with the respondents' high mean score of self-efficacy. One interpretation of this finding might be that the more confident the employee is in reaching the goal, the higher is his/her performance. Another understanding might be that if the employee reaches a high-level goal due to high performance, his/her self-efficacy rises. In either scenario, a person's aim must be to keep this confidence high, such as by stipulating challenging but reachable goals. Lee and Bobko (1994) propose that "the higher an individual's self-efficacy for a task, the lower his or her perception of goal difficulty". This notion is confirmed in our study on the German public sector.

Employee participation has a significant positive correlation with individual work performance. This finding indicates that the performance of civil servants can be enhanced by a communicative culture in the public institution and confirms the above-mentioned findings of former stud-

ies. It outlines that participation serves a major role in the administrative goal-setting process in German local administrations.

Both the high mean value and the significant positive correlation of public service motivation and individual work performance confirm the relevance of public service motivation in German local governments and its positive influence on individual work performance. This finding is able to be used to make goal setting more effective. First, the social effect of every single goal should be stressed in a goal-setting meeting to address the employees' public service motivation. By underlining the public service contribution of every task and expressing the public service ethic in a goal-setting meeting, employees can be motivated to increase their efforts to reach a goal. Second, by attracting and employing people with high public service motivation, the average individual performance of public servants (and as an overall result, even the organisational performance) can be enhanced. These findings confirm our premise and go in line with former propositions in the international context (Leisink/Steijn 2009; Brewer 2008). A combination of the positive effects of public service motivation and goal specificity leads to the conclusion that setting a clear public service goal will have a significant impact on individual work performance in the German public sector. This conclusion at least partly fills the research gap identified by Paarlberg/Perry/Hondeghem (2008).

Some limitations of our study must be addressed. The high performance cycle – a meta-theory of work motivation on the basis of the goal-setting theory (Latham/Locke/Fassina 2002; Locke/Latham 1990 a) consists of additional influencing factors of the goal-setting process, but not all of them could be included in our research. Implementing more variables in further research might broaden our understanding of the functionality of goal setting in the German public sector. Furthermore, we focus on the bivariate correlations of the variables in this study. Hence, our recommendations are based on tests for covariance. A structural equation model might provide additional information about the role of each variable in the German administrative goal-setting process. Finally, our study focused on local administrations in Germany.

Zusammenfassung

Stefan Reemts, Bernhard Hirsch und Christian Nitzl; Die Wirkung von Zielvereinbarungen auf die individuelle Arbeitsleistung der Beschäftigten im öffentlichen Sektor in Deutschland – Empirische Ergebnisse aus Kommunen

Arbeitsleistung; Controlling im öffentlichen Sektor; Gemeinden; Personalcontrolling; Public Service Motivation; Zielvereinbarungen

Auf Basis der Goal Setting-Theorie entwickelten wir einen Fragebogen, der die zielvereinbarungsspezifischen Einflussfaktoren auf die Arbeitsleistung von Beschäftigten in deutschen Kommunen erfasst. Die spezifische Motivation der Mitarbeiterinnen und Mitarbeiter im öffentlichen Sektor wurde durch das Konstrukt der Public Service Motivation, das die individuelle Prädisposition für eine Tätigkeit im öffentlichen Bereich misst, berücksichtigt. Die Befragung liefert empirische Belege dafür, dass von spezifischen Zielvereinbarungen eine positive Wirkung auf

die individuelle Arbeitsleistung der Beschäftigten im öffentlichen Sektor ausgeht. Die Public Service Motivation ist vorhanden und zeigt eine positive Wirkung auf die individuelle Arbeitsleistung. Die Partizipation der Beschäftigten im Zielsetzungsprozess zeigt ebenfalls einen Einfluss auf die individuelle Arbeitsleistung.

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