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# **Contrasting and Explaining Purposeful and Legitimizing Uses of Performance Information: A Mayor's perspective**

## **Introduction**

The New Public Management (NPM) movement has often described the adoption of performance measurement systems as the practical translation of principles of economic rationality and result orientation in the public sector (Hood, 1991). An increasing body of literature has therefore looked at and described the use of performance information as a “purposeful” means towards the end of supporting better decision making and improving public sector performance (Behn 2003; Moynihan 2009; Moynihan and Pandey 2010; see also Kroll 2015a). Several studies have however also offered a contrasting perspective, highlighting how performance measurement systems may fall short of such promises, or, by being used to support, legitimize and ensure the acceptability of past decisions and actions, de facto may stray from the aim of supporting improved decision making (e.g., Moynihan, 2009; Brignall and Modell 2000; Giacomini et al. 2016). These studies suggest that public sector organizations may experience a combination of multiple uses of performance measurement systems, and possibly the predominance of some uses over others. However, extant literature has not yet provided answers to the question of under which conditions different types of performance information use prevail over others.

Contrasting purposeful and legitimizing types of uses of performance information, this article sets out to explore the conditions under which one prevails over the other. The study focuses on mayors as the politico-administrative apex of local governments. It therefore captures the perspective of actors who shape local policy, but also take an executive leadership role in the local governments' daily administrative activities.

The contribution of this study to the field is two-fold. First, this large-scale study challenges the predominant view of purposeful use/non-use of performance information in extant quantitative studies by considering both purposeful and alternative (legitimizing) types of uses (see also van Helden 2016, Moynihan 2016; Nitzl et al., 2018) Second, by exploring the conditions under which the dominance of legitimizing over purposeful uses occurs, i.e. when the reported level of legitimizing use is higher than that of purposeful use, this study raises the awareness about contextual and organizational factors that drive and/or inhibit the dominance of this use type and may provide insights on how to address users' needs and to design performance measurement systems. The article is structured as follows. The next section provides a review of existing literature on uses of performance information. Section three advances the hypotheses to be tested. Data, methods, and the context of the analysis are outlined in section four. Section five presents the results of the analysis, which are subsequently discussed in section six. Conclusions, implications and further research avenues are drawn and illustrated in the last section.

### **“Purposeful” vs. “Legitimizing” Uses and Dominance**

New Public Management (NPM) reforms were initially conceived and described as the means to bring managerialism, market-based competition, economic rationality, and performance orientation into the public sector (Hood 1991, 1995; Pollitt and Bouckaert 2011; Olson, Guthrie, and Humphrey 1998), supposedly replacing the traditional Weberian model of public administration which was inspired by hierarchical forms of control, political rationality, and process orientation (Weber 1978; Behn 1998; Liguori et al. 2011).

As for any administrative reform, the principles underlying the NPM movement have been translated in practice through an array of tools and systems. Among them, a central role has been played by performance measurement systems, heralded as being central in promoting

performance orientation, and supporting decision-making. Interestingly, however, two concurrent streams of research have developed in parallel to look empirically at the adoption of performance measurement systems in the public sector. Drawing on contingency theory (Chapman 1997; Chenhall 2003; Lawrence and Lorsch 1967; Thompson 1967) and economic theories, including agency, rational choice, and transaction cost theory (Jensen and Meckling 1976; Williamson 1981; Gruening 2001; Moynihan 2005; Hughes 2012;), a predominantly functionalist and quantitative-oriented stream of studies has looked at “purposeful” uses of performance measurement systems, i.e. use of performance information aimed to improve the quality of (managerial) decisions and thus ultimately enhance performance (e.g., Askim 2007; Cavalluzzo and Ittner 2004; De Lancer Julnes and Holzer 2001; Ho 2005; Kroll 2014, 2015b; Melkers and Willoughby 2005; Moynihan 2005, 2009; Poister and Streib 1999; Poister et. al 2013, Moynihan and Pandey 2010; Rabovsky 2014, Speklé and Verbeeten 2014; Taylor 2009; Yang and Hsieh 2007). This stream has largely looked at the antecedents of performance information use, exploring whether, when, and to what extent performance information is used in the public sector. Scholars contributing to this stream of literature have generally downplayed (though not negated) the presence of other use types and logics that drive the use of performance information in public sector organizations.

A complementary stream of literature, which has often embraced interpretive and qualitative approaches, has enriched this view of performance measurement (for reviews of this literature see Jacobs 2013; Modell 2009; Van Helden 2005; Van Helden, Johnsen, and Vakkuri 2008), providing evidence that performance measurement systems may be used for purposes other than the search for improved decision making and managerial action. This stream of literature points out that public sector organizations deal with divergent interests and ambiguous goals (Burchell et al. 1980; Meyer and Rowan 1977), which is why decision-makers need to use performance information to justify their decisions to citizens, other organizations, and stakeholders within

the organization, as well as promote their particular positions (Feldman and March 1981). In this regard, earlier contributions refer to the use of performance information as a form of “ammunition” or “rationalization” (Burchell et al. 1980). Ammunition refers to the use of performance information by interested parties to sustain their own positions, whereas rationalization refers to the role of performance information in supporting retrospective understanding of actions to justify particular stance. In general, this literature highlights the ceremonial or *legitimizing* use of performance measurement systems, to ex-post rationalize or justify actions and decisions, or to seek external approval and legitimacy of organizational activities (see also Carruthers 1995; Henri 2006; Markus and Pfeffer 1983; Giacomini et al. 2016; Nitzl et al. 2018; Feldman and March, 1981).

In a similar vein, Moynihan (2009) puts forward the type of “political” use of the performance information, i.e. the use of performance information to advocate for resources, to explain the value of programs to the public, or to communicate program successes. Along these lines, more recent studies show that in the public sector, performance information is also used to (ex-post) rationalize or justify actions and decisions, or to seek external approval and legitimacy (Giacomini et al. 2016, Nitzl et. al. 2018) and therefore plays a rather legitimizing role, supplementing or complementing purposeful types of uses. Although attempts to empirically identify and investigate alternative uses of performance measurement systems are still rare, the notable exceptions in literature suggest that going beyond a (purposeful) use/non-use distinction is worthwhile (see also van Helden 2016).

While the above studies investigate the use of performance measurement systems from different explanatory standpoints, the joint consideration of the literature streams suggests that the two approaches are not necessarily mutually exclusive. Similar to what happened at the level of the overall inspiring principles, logics and models of public administration, also at the level of the tools that operationally translate them in practice it may be expected that in the same

organization different uses of performance measurement systems and the related information may coexist and combine (Abrahamson 1991, 1996; Ansari and Euske 1987; Burchell et al. 1980; Feldman and March 1981; Fligstein 1997; Lawrence and Suddaby 2006; Marcuccio and Steccolini 2005; Lounsbury 2008; Modell 2009; Moynihan 2004; Powell 1991).

This may be especially likely in a context where multiple rationalities and logics (Lounsbury 2008; Schedler 2003) are at play and the political and administrative spheres get intertwined (Avellaneda 2012; French and Folz 2004; Ho 2006; Liguori, Sicilia, and Steccolini 2012; Mouritzen and Svara 2002; Newell and Ammons 1995; Svara 2006). For these reasons in this article purposeful and legitimizing uses are assumed as coexisting in the same organization. Building on this assumption, this article does not look at the two types of use separately, but rather aims at exploring how they are related and - by applying the concept of dominance - more specifically looks at the conditions under which performance information is used more in a legitimizing way than a purposeful one.

### **The perspective of mayors**

Exploring these questions requires capturing the perspective of actors who embody substantial policy as well as administrative roles. The present study therefore looks at performance information use from the perspective of mayors in Austria, where, comparable to other countries of the continental European model (e.g. France, Germany, Italy, and Spain) a ‘strong mayor’ model of government (Weyenberg and Kuhlmann 2018, p. 845) accounts for an amalgamation of political and executive responsibilities in the mayoral position (see also Mouritzen and Svara 2002).

The mayor, together with the council and the board, forms the political bodies of local governments. The municipal office, that is subordinate to the mayor and the council, carries out the local governments' daily operations. The directly elected council is the legislative body that approves the budget and the balance sheet, sets decisions on local rates, exerts financial oversight, but also elects the municipal board that serves as an advisory body to the council in legislative issues. The board consists of the mayor, his/her deputies, and designated councilors. The mayor is the highest-ranking official that supervises the municipal office. As the top politician in local government, the mayor is chair of the municipal board and the council. This accounts for a paradox situation where the person who chairs the council is at the same time controlled by it (Pleschberger 2003).

Unlike in other countries where mayors take merely ceremonial roles (see Mouritzen and Svava 2002), Austrian mayors as the top politicians in local governments not only shape local policies, but also have almost exclusive administrative power. Although in larger local governments, a city manager (or, chief executive officer) assists the mayor in certain aspects, e.g. by overseeing the preparation of the budget, coordinating departments, and assuming general management responsibilities, mayors are in full charge of all executive functions (see also Avellaneda 2008). Mayors jointly work with administrators on various policy and management issues, and in contrast to other elected officials, therefore have a better understanding of the municipal office and the local government's daily operations (see Ho 2006). The mayors' roles and responsibilities give them the opportunity to observe how performance information is used in their local governments. In addition, they guide activities outside their direct control, as their interpretations about the organization and its environment affect the collective interpretations held by other organizational members (Ford and Baucus 1987; Gioia and Chittipeddi 1991).

**Explaining the Dominance of Legitimizing over Purposeful Uses of Information:**



## **Contextual and Organizational Antecedents**

The next section introduces the hypotheses on the possible contextual and organizational factors that which may drive or inhibit the dominance of a legitimizing performance information use. In this regard we differentiate between two sets of factors. The first one deals with the impact of four contextual conditions, i.e. local governments where organizational changes have been strongly driven by (1) financial pressure, (2) citizens' expectations, (3) oversight pressure or (4) political pressure and their possible implications for the use of performance measurement systems in these contexts/situations. The second set of factors comprise three organizational factors, i.e. developmental culture, hierarchical culture and performance information availability. The choice to focus on these particular organizational variables is driven by the consideration that they have been used in the previous literature, which has generally focused separately on single types of uses of performance information. So far, however, less attention has been paid to understand what drives the dominance of a legitimizing use of performance information.

### ***Contextual Factors***

Instrumental views of performance measurement systems tend to rely on economic theory, according to which managerial practices are adopted and used when they are perceived as being beneficial for the organization (see Brignall and Modell 2000, 283; De Lancer Julnes and Holzer 2001, 694) to enhance performance and thus ensure organizational survival in the long run. Thus, public sector organizations that behave rationally are expected to put efforts in avoiding performance gaps.

In the public sector, performance gaps may emerge when organizations face financial constraints or demands and expectations by citizens (De Lancer Julnes and Holzer 2001;

Liguori and Steccolini 2011; Marcuccio and Steccolini 2005; Moynihan and Ingraham 2003; Poister and Streib 1999). In times of decreasing budgets or fiscal stress, public organizations need to navigate the tension of adhering to spending limits while avoiding service cuts, which would worsen their non-financial performance (Anessi and Sicilia 2015). Hence, they seek ways to increase efficiency, rationalize, and reduce expenditures. Similarly, citizen expectations and demands create pressure on local governments - as the nearest to citizen level of government - in particular, to look for solutions that may allow a higher quantity, wider or different array of services, and increased quality - even in resource-invariant situations. To close potential performance gaps, under either one of these situations, organizations may be encouraged to use performance information in a way that can support better decisions about resource allocation and indicate costs that can be reduced and services that can be improved. Thus, it may be expected that citizens' expectations and financial pressure driven changes in local governments encourage a rather purposeful use of performance measurement systems, therefore inhibiting a dominant legitimizing use. From this follows:

*H1: Financial pressure driven changes will be negatively associated with a dominant legitimizing performance information use.*

*H2: Citizens' expectations driven changes will be negatively associated with a dominant legitimizing performance information use.*

Prior studies have adopted new institutional sociology to study performance measurement systems in the public sector, though often from a qualitative point of view (e.g., Brignall and Modell 2000; Modell 2005a, 2005b; van Helden, Johnsen, and Vakkuri 2008; Modell 2009; Siverbo and Johansson 2009; Ter Bogt and van Helden 2000; Wright 2004). This perspective posits that performance measurement systems are not adopted necessarily for decision-making

and performance improving purposes, but rather in order to gain legitimacy (e.g., DiMaggio and Powell 1983; Meyer and Rowan 1977; Modell 2009). Organizations show conformity with external expectations and rationalized myths in society about what constitutes a ‘proper’ organization and how it should operate, which results in institutional isomorphism (Meyer and Rowan 1977). Di Maggio and Powell (1983) identified three different pressures that may spur organizational isomorphic behaviors: coercive pressures that stem from power relationships, mimetic pressures that result from uncertainty, and normative pressures that are associated with professionalism. In this context, symbolic displays for external legitimacy-seeking purposes differ from actual actions in organizations. This discrepancy is called decoupling (Lounsbury 2008; Schneiberg and Clemens 2006; Scott 2008).

Drawing on this literature, this article focuses on the coercive pressures exerted by oversight bodies and normative pressures by political parties. With specific reference to oversight bodies, it has been suggested that reforms and changes can be promoted by authority (Walker 2006; Berry and Berry 2007), but empirical findings have also shown that this does not always translate into actual implementation (see Boyne et al. 2015). In this context, symbolic displays for external legitimacy-seeking purposes differ from actual actions in organizations. Along these lines, oversight bodies may impose external accountability policies which fail to transform internal management practices (see also Rabovsky 2014). In such contexts it may be expected that the decision-making processes within the organization will be only loosely coupled to the performance measurement systems (Franklin 2000) with the latter being used for ex-post rationalization of decisions or promotion of specific point of views a justification of already taken decisions (Ashworth, Boyne, and Delbridge 2009). Thus, this pressure will be associated with the dominance of a legitimizing use of performance measurement systems over a purposeful one.

With specific reference to the role of political parties, it has been recently shown that partisanship shaped priorities at the local level exist even in the context of directly elected mayors (Einstein and Glick 2016), thus suggesting that the normative pressures that are exerted by political parties drive the way in which local governments conform to systems and techniques that are considered legitimate by these communities (Ashworth, Boyne, and Delbridge 2009). More generally, political parties can exert a normative pressure on local government by promoting certain reforms, changes, techniques, which thus appear to be legitimated and accepted in the political arena. Similar to responses to oversight bodies' pressures, local governments are likely to respond to political pressures embracing uses of performance information which are aimed at showing compliance, rationalizing actions and decisions, rather than modify the ways in which decisions are actually made. Therefore, in striving to show compliance and achieve legitimation for the past and future organizational actions, it may be expected that pressure by political parties will also drive the legitimizing type of performance information use compared to the purposeful one.

From the above, the following hypotheses are put forward:

*H3: Oversight pressure driven changes will be positively associated with a dominant legitimizing performance information use.*

*H4: Political pressure driven changes will be positively associated with a dominant legitimizing performance information use.*

### ***Organizational Factors***

Explanations of performance information use based on organizational factors tend to adopt two concurrent views (Moynihan and Pandey 2010): the demand-side and the supply-side. The demand-side view focuses on the role of organizational culture (Krakower and Zammuto 1991; Moynihan and Pandey 2005; Quinn and Rohrbaugh 1983) in influencing the use of performance information (De Lancer Julnes and Holzer 2001; Dunk and Lysons 1997; Henri 2006; Johansson and Siverbo 2009; Kroll 2013; Moynihan and Pandey 2010; Saliterer and Korac 2013; Taylor 2009). Organizational culture is a broad concept, consisting of different dimensions such as shared basic assumptions, norms, values, artifacts, and patterns of behavior (Schein 1985; Green 1988; Deshpande and Webster 1989; Henri 2006). *Shared basic assumptions* guide judgments within an organization, based on fundamental beliefs and values, behavioral *norms* are shared beliefs regarding acceptable and unacceptable behaviors, and *values* are the priorities assigned to certain states or outcomes (Henri 2006). Organizational culture has often been seen as an antecedent of the use of a performance measurement system and thus also of performance information. In particular, previous studies have shown that developmental culture which fosters flexibility, responsiveness, and entrepreneurialism encourages a purposeful use of performance information since top decision-makers will more often face situations in which strategic decisions should be taken (e.g., Henri 2006; Moynihan and Pandey 2010; Kroll 2014). As a consequence, they use performance information to improve their decisions. In contrast, the type of organizational culture that constrains actions and draws attention to rules and procedural compliance (hierarchical culture) may be expected to foster a dominant legitimizing use. The need for continuity and stability promotes the use of performance information to justify past actions and decisions also in order to strengthen the legitimation and credibility of future aligned organizational actions (Henri 2006).

From this follows that:

*H5: Developmental culture will be negatively associated with a dominant legitimizing performance information.*

*H6: Hierarchical culture will be positively associated with a dominant legitimizing performance information use.*

The supply-side view of performance measurement systems suggests that performance information use is driven by the availability of diverse and rich data. Several studies have provided evidence on the influence of performance information availability on the use of the respective information (Cavalluzzo and Ittner 2004; De Lancer Julnes and Holzer 2001; Moynihan and Ingraham 2003; Moynihan and Landuyt 2009). These studies have highlighted that the the nature and quantity of information available influence the way in which information is used. In particular, they have shown that the availability of performance information drives the frequency of performance information use, therefore being rather associated with a purposeful use type. From this follows that:

*H7: Performance information availability will be negatively associated with a dominant legitimizing performance information use.*

Figure 1 summarizes the expected effects.

[Figure 1 near here]

## **Data and Method**

The study looks at local governments in Austria, a Neo-Weberian State model of administration, where public administration has been modernized by implementing managerial elements and performance orientation while building on its strong legalistic and rule-based tradition. Thus, the country represents a blend of Weberian culture with managerial elements that are typical for the NPM model (see Hammerschmid et al. 2016; Kuhlmann 2010; Pollitt and Bouckaert 2011). Small and medium sized local governments dominate this administrative level's landscape, where over 99 per cent of the 2,354 local governments<sup>1</sup> have less than 25,000 inhabitants. Although Austrian local governments – irrespective of their size – provide an array of services, such as water and sewer, waste collection, kindergarten, elderly care, local roads and works, recreation facilities, and libraries, their fiscal autonomy can be described as rather low (Bloechliger 2005; Fagnoli 2014).

Data were obtained via a nation-wide e-mail triggered online survey administered in 2011 to mayors whose individual e-mail addresses were publicly available at the local governments' websites (1,460 mayors corresponding to 62 per cent of population). In 117 cases, the cover letters with the link to the survey have been returned with a failure notice (e.g. unavailable or inactive e-mail addresses). The respondent rate of 20 per cent yielded 274 usable instruments for further analysis. To test whether the subset of responding mayors was representative of the original sample, we conducted t-tests on the local government size. No significant differences were found between the subset of responding mayors (mean population = 2,580) and the original sample mean population size (mean population = 2,338;  $t = 1.4$ ;  $p = .138$ ). Moreover, we also compared the own-revenue share, which comprises local taxes like property tax (a land

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<sup>1</sup> This figure represents the total number of local governments at the time of the survey. Due to mergers of local governments in some of the nine *Länder* in the recent past, there are currently 2,100 local governments in Austria. The mergers did not result in changes to the ratio of small and medium sized governments.

value tax that however does not mirror the actual market value) and the municipal tax (a payroll tax paid by businesses based on the number of employees and the wages) as well as service fees and charges, the local governments can collect. The own revenue share of the original sample (mean: 44%) is comparable with the own-revenue share of the sub-sample (mean 45.5%). Around 82% of Austrian local governments are classified as rural areas, while 18% fall into the category of intermediate density areas (towns and suburbs). Of the more than 2,000 local governments, only six fall into the category of a densely populated area.<sup>2</sup> This general picture is also mirrored in the responding local governments (81% rural and 19% intermediate density areas). In terms of respondents' characteristics only data on gender is available. With a share of 92% male respondents, the sample broadly reflects the distribution of male and female mayors in the original sample (2011: 95% male and 5% female).

All data used in the study are self-reported, and this may create problem of common method bias. However, self-reports using several constructs have been identified as clearly appropriate for certain research questions (see Conway and Lance 2010). Moreover, several actions were adopted to reduce this risk (Chang, van Witteloostuijn, and Eden 200). The used questions in our questionnaire were as specific as possible (see also Meier and O'Toole (2013) and the relationships used in our model are complex and difficult to be ex-ante understood by the respondents (Nitzl et. al. 2018). Finally, we avoid conceptual overlap in items that are used to measure the constructs, and build on constructs validated in prior studies (Conway and Lance 2010).

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<sup>2</sup> Statistics Austria 2018. Based on the EUROSTAT classification 'degree of urbanisation' which creates a classification of all LAU2s (Local Administrative Units - Level 2/municipalities) into the following three categories: cities/urban centres (densely populated areas) (Code 1), towns and suburbs (intermediate density areas) (Code 2), rural areas (thinly populated areas) (Code 3).



Given the aim to identify possible explanatory factors of a dominant legitimizing use, the analysis required identifying the dependent variable for the legitimizing use dominance. In a first step, the legitimizing and purposeful performance information use were measured with multi-item scales. The legitimizing use as well as purposeful use items were derived from literature (see Burchell 1980, Ansari and Euske 1987, Henri 2006, Giacomini et al. 2016; Nitzl et al 2018, Moynihan 2009, Kroll 2015a, Rabovsky 2014). The former comprises three items reflecting a legitimization oriented use pattern (i.e. (in my local government) performance information is mainly used for policy making (in the sense of politics), performance information is mainly used to legitimize already taken (political) decisions, and performance information is mainly developed on specific requests), with the latter item pointing to an ad-hoc behavior and rather unsystematic use. The purposeful use pattern comprises four items (i.e. in my organization) performance information is used to make more rational decisions, performance information is used to improve the quality of decisions, performance information is used to reduce costs, performance information is discussed regularly), with the latter item pointing to a behavior towards using performance information in a rather systematic and technical-rational. In a next step an explorative factor analysis to the seven items was applied (appendix 1). The varimax rotated factor loadings show the expected results with factor loadings greater than .68 for each item.

Cronbach's Alpha for the purposeful performance information use is .77 and for the legitimizing performance information use .60.<sup>3</sup> The scores on these measures were means calculated across items. Then, the difference between the purposeful and legitimizing performance information use variables [PIU<sup>legitimizing</sup>-PIU<sup>purposeful</sup>] was calculated. The

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<sup>3</sup> The values are acceptable given the small number of items of this scale (Cortina 1993, Murphy and Davidsholder, 1988, p. 89).

difference theoretically varies from -4.0 to 4.0<sup>4</sup> and reflects the imbalance in both directions, i.e. the dominance of purposeful as well as the dominance of legitimizing performance information use. This approach therefore allows to investigate if the included factors offer interconnected, i.e. opposite explanations, for situations where a specific pattern (reflecting the intensity as well the dominance of a specific use) prevails.

The independent variables included in the regression model were identified by operationalizing the potential explanatory factors described in the hypothesis section, i.e. contextual factors, performance information availability, and organizational culture. The items are provided in Appendix 1. Single-items were used to measure the respondents' perceptions of financial pressure, pressure by oversight bodies, political pressure, and citizens' expectations (see also Walker 2006, Walker, Avellaneda, and Berry 2011). Performance information availability and organizational culture were also operationalized as perceptual measures. Prior research has applied a similar approach, as it has been argued that variables become visible to an organization through people's perceptions (Downs and Mohr 1976). Specific examples for performance indicators were provided in the question on performance information availability in order to minimize the risk of misinterpretation of the performance dimensions. The two types of organizational culture, developmental and hierarchical, were measured using six adapted items from Krakower and Zammuto (1991). An aggregated index is computed for the multi-item variables using the scale point values for each item. Size was measured using a logarithm of the population figures in 2010, which were the latest available official statistical information at the time of the survey. Moreover, age and own-revenue share were used to control for

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<sup>4</sup> Absolute difference approaches assume that the direction of asymmetry does not matter (e.g., a local government with legitimizing performance information use = 5 and managerial performance information use = 3 has the same dominance score as a local government with legitimizing performance information use = 3 and managerial performance information use = 5), and prevents to analyze if the imbalance in one direction is more detrimental or in our case is associated with opposite but interconnected explanations.

individual and organizational characteristics. The operationalization of the dependent and independent variables is also shown in Appendix 2.

## **Results**

Descriptive and correlation results for the dependent and independent variables are shown in Appendix 3. The results show that on average, mayors perceive a stronger purposeful performance information use (3.76) than a legitimizing one (2.99). Figure 2 provides histograms with the distribution of responses for purposeful performance information use as well as for legitimizing uses and the dependent variable.

[Figure 2 near here]

Moreover, results show that a significant negative relationship ( $p < 0.001$ ) seems to exist between the two performance information use types. This provides support to the approach of using the (relative) variable of dominance of a particular type of use. To examine the association between dominant legitimizing performance information use and the independent factors more closely, four regression analyses were conducted (see Taylor 2009 for a similar approach). Table 1 presents the results of the regression analysis<sup>5</sup>.

The first regression (base model) examines how much variance in the dependent variables is accounted for by the three control variables (adjusted  $R^2$  is 0.037). The control variables of respondents' age and the own revenue share have no significant effects on the dominance of a

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<sup>5</sup> Separate regressions for legitimizing and purposeful performance information uses are also shown in Appendix 4.

legitimizing performance information use. However, the control variable of local government size, measured as a logarithm of the population, is significantly negatively associated with the dominance of a legitimizing use ( $\beta = -0.186$ ,  $p = .006$ ). A dominant legitimizing performance information use is therefore less likely in larger local government.

The remaining analyses focus on the hypotheses. The dependent variable is regressed on the control variables and two sets of independent variables; i.e. contextual factors and organizational factors with the aim of applying a separate as well as a combined analysis of the different factor sets.

[Table 1 near here]

The second model (table 1) assesses the influence of the four contextual factors (i.e. financial pressure, changing citizen expectations, oversight pressure and political party pressure) on the dependent variable. Introducing these variables results in a large increase in explained variance (adjusted  $R^2$  is 0.175) compared to the base model. Contrary to expectations, no significant negative association between financial pressure and a dominant legitimizing performance information use has been identified. As to the changing citizen expectations, a negative effect on the dominant legitimizing use ( $\beta = -0.112$ ,  $p = .046$ ) is revealed. Thus, while H1 is not supported, H2 is confirmed. Oversight pressure, as expected, shows a significant positive association (H3) with a dominant legitimizing performance information use ( $\beta = 0.214$ ,  $p = 0.001$ ). Similarly, the hypothesis of a positive association between political pressure and a dominant legitimizing performance information use (H4) is supported ( $\beta = 0.264$ ,  $p = 0.000$ ). The third model (table 1) evaluates the impact of organizational factors; i.e. two categories of organizational culture and performance information availability. Also in this case the explained variance increases significantly compared to the base model ( $R^2$  is 0.152). The results reveal

that all three organizational factors (performance measurement availability, developmental culture, and hierarchical culture) show the expected association with the legitimizing use dominance. It appears that, while developmental culture in local governments is negatively associated with a dominant legitimizing performance information use (beta = -0.174, p = 0.007) (supporting H5), hierarchical culture significantly drives the dominance of this performance information use type over the purposeful one (beta = 202, p = 0.001) (supporting H6). Performance information availability shows the expected significant negative association with the dominance of a legitimizing performance information use (beta = -0.108, p = 0.085) (H7).

The final analysis and model combine all independent variables together to explore whether external and organizational factors have an equal chance of being significantly related to a dominant legitimizing performance information use. This combined model explains 28 per cent of the variance in the dependent variable. Nearly all included variables remain significant in the combined model, with the exception of citizen expectations. In terms of importance, the effects of political pressure (beta = 0.238, p = 0.000) and oversight pressure (beta = 0.192, p = 0.002) on the dominance of a legitimizing performance information use are larger than the effects of developmental culture (beta = -0.165, p = 0.007), hierarchical culture (beta = 0.122, p = 0.034) and performance information availability (beta = -0.119, p = 0.043).

It is worth noticing that the types of purposeful performance information use and legitimizing performance information use do not appear to be decoupled, but rather seem to substitute each other. The latter argument is also supported by the regression results shown in Appendix 4 as the effects of the included variables systematically vary (e.g. while oversight pressure is positively related to legitimizing use, it is negatively related to purposeful use).

## **Discussion**

This article set out to explore different uses (i.e., purposeful, legitimizing) of performance information, their relationship and relevant contextual and organizational drivers. A first set of results indicate that, according to mayors, performance information in local governments tends to be used predominantly in a purposeful way, with the aim to support decisions and enhance organizational performance. However, they also show that a legitimizing use (although lower) is common in local governments, therefore in principle supporting a dual view of performance measurement systems, used both for assisting in better decision-making as well as for justifying (past) decisions and actions. Interestingly, the results also show that, while different types of use can be present in an organization at the same time, they appear to represent two opposite poles on a continuum: the higher the level of one performance information use in an organization, the lower the level of the other. From a practical point of view, this appears to suggest that when organizations invest efforts, time and resources in one type of use, this may crowd out other types of uses. However, this should be the subject of further investigation where the dynamics explaining such results are explored. From a theoretical viewpoint, this provides support for the literature that highlights the diversity of performance information uses (Moynihan, 2009; Verbeeten and Speklé, 2015; Nitzl et al., 2018). From a methodological perspective, the significant negative relationship between the two uses appears to sustain the relevance of using a dominance measure.

A second set of results contributes to a better understanding of the contextual and organizational variables to be taken into account when explaining the dominance of a legitimizing performance information use over a purposeful one. Among the contextual variables, only those drawn from institutionalist explanations appear to be significant, whereas those explanations drawing on more rational and instrumental views do not appear to hold. Indeed, financial and citizens' pressures do not appear to be significant in explaining the dominance of a legitimizing type of performance information use, whereas both oversight (coercive) and political (normative)

pressures appear to encourage a stronger legitimizing use as opposed to the purposeful one. This suggests a stronger relevance of institutional drivers of this phenomenon as opposed to rational and instrumental justifications.

A possible explanation of this result is that public sector organizations are better able to react to coercive and political pressures by activating the legitimizing uses than to adopt more purposeful uses when there is a need to identify potential for increasing service efficiency and effectiveness. This may be the result of several intertwined phenomena, which may deserve further disentangling. For example, in some cases this may be due to the lack of the necessary capacities to incorporate performance information to improve decisions making. Moreover, when organizational actors do not believe that using performance information would drive better decisions and performance, they will be less prone to implement purposeful uses even when apparently appropriate (e.g., Broadnax and Conway 2001; Franklin 2000; Yang and Hsieh 2006). Conversely, as widely shown in public administration studies, institutional forces appear to play an important role in guiding behaviors in the public sector, where cause-effect relationships between inputs and outputs remain ambiguous (Meyer and Rowan, 1977; Chung and Rainey, 2005) and thus organizations tend to adopt isomorphic reactions in response to external stimuli. Thus, this article provides further evidence of the relevance of such behaviors in using performance information.

At the organizational level, both the demand-side and the supply-side explanations appear to be significant in explaining performance measurement uses. Looking at the role of organizational variables, the results suggest that in local governments that are characterized by a culture that constrains actions and draws attention to rules and procedural compliance (hierarchical), performance information is more likely to be used to justify actions and decisions than to

support decision-making. Moreover, results show that developmental culture has a negative impact on the dominance of legitimizing uses over purposeful uses. These results are consistent with previous studies and confirm that organizational culture is a particularly relevant variable for understanding how performance information use unfolds in organizations (e.g. Henri 2006; Moynihan and Pandey 2010). The findings imply that a shift in the way in which performance information uses relate to each other may be achieved promoting a change in organizational values, beliefs and patterns of behaviour.

The perception of a higher availability of performance information shows the expected negative and significant association with the dominance of a legitimizing performance information use, suggesting that richer performance information drives a rather purposeful type of performance information use. The same (or even stronger) effect is shown for the control variable of size, which supports prior arguments in literature that larger organizations need to handle a higher quantity of information and thus become more proficient in using performance information to support decision-making (Chenhall 2003; Child and Mansfield 1972; Moynihan and Ingraham 2004).

## **Conclusion**

This article aimed at exploring the conditions under which legitimizing uses of performance information prevail over purposeful ones. In doing so, the article extends previous literature in two directions. On the one hand, it looks at multiple uses of performance information (i.e. purposeful and legitimizing), showing that purposeful and legitimizing uses of performance information coexist and seem to be linked by a significant negative relationship. As such, instead of studying them separately, it studies them jointly and introduces the concept of



dominance of one over the other and measures it. On the other hand, it investigates the role of contextual and organizational variables in explaining such dominance, pointing out that both of them have explanatory power.

This study bears important implications for practice. It highlights that a certain level of legitimizing use of performance information, rather than being ruled out as an exception, should be taken into consideration when addressing users' needs and designing performance measurement systems. For example, the findings suggest that institutional pressures may discourage a type of use of information that is aimed at improving performance, and foster a use of information aimed at justifying decisions rather than improving them. Also, they highlight that a hierarchical organizational culture, which may be particularly common in a Weberian administrative tradition, is likely to enhance the dominance of a legitimizing performance information use. This points to the need to reflect on the fit between organizational culture and type of performance measurement systems and uses. Thus, raising the awareness of the factors fostering different types of uses may produce not only a stronger use of performance information, but also the type of use that is desired. Future studies will need to address the question of whether different combinations of uses produce different effects on performance, and thus whether they are all desirable, or, rather, policy makers and managers should try to leverage only some of them and create the conditions that strengthen only the uses that prove beneficial for organizational performance.

As for any piece of research, our research presents limitations, which point to possible future developments. The study is set in a continental European country, which can provide evidence from a context that is generally under-investigated, as most (quantitative) studies tend to be focused on Anglo-Saxon countries. It would thus be interesting to replicate this research in

alternative contexts to see whether and to what extent results hold true. Second, given that the present study is cross-sectional, the adoption of a longitudinal perspective may provide possible insights into causal links and how performance information use types evolve over time and under what conditions. Third, future research should try to further unpack and disentangle the purposeful and legitimizing as well as other use types of uses (see also Moynihan 2009, 2012; Speklé and Verbeeten 2014). Fourth, in this study the attention has been focused on a specific combination of legitimizing use and performance information, that is the dominance of legitimizing use over a purposeful one. Future studies may be interested in better understanding how purposeful and legitimizing uses coexist, for example by investigating the conditions that may affect different combinations. In this regard, combining low and high importance of legitimizing and purposeful uses may allow to explore different patterns of co-existence and explore their relevant drivers or consequences on organizations<sup>6</sup>. Fifth, the study focuses on mayors in the Austrian context as the political as well as administrative apex of local government. Future studies may compare the perspective of politicians with the perspective of chief executive officers or city managers. This may be worthwhile, in particular when it comes to explanatory factors for different uses of performance information. Finally, the study is based on self-reported responses and, thus, on perceptions of respondents. This may engender several risks, such as reducing accuracy, creating the potential for bias due to common-response issues and hampering the ability to grasp the casual relations between variables. Future studies may try to overcome such risks by implementing research design based on observations of actors using performance information in their daily activities.

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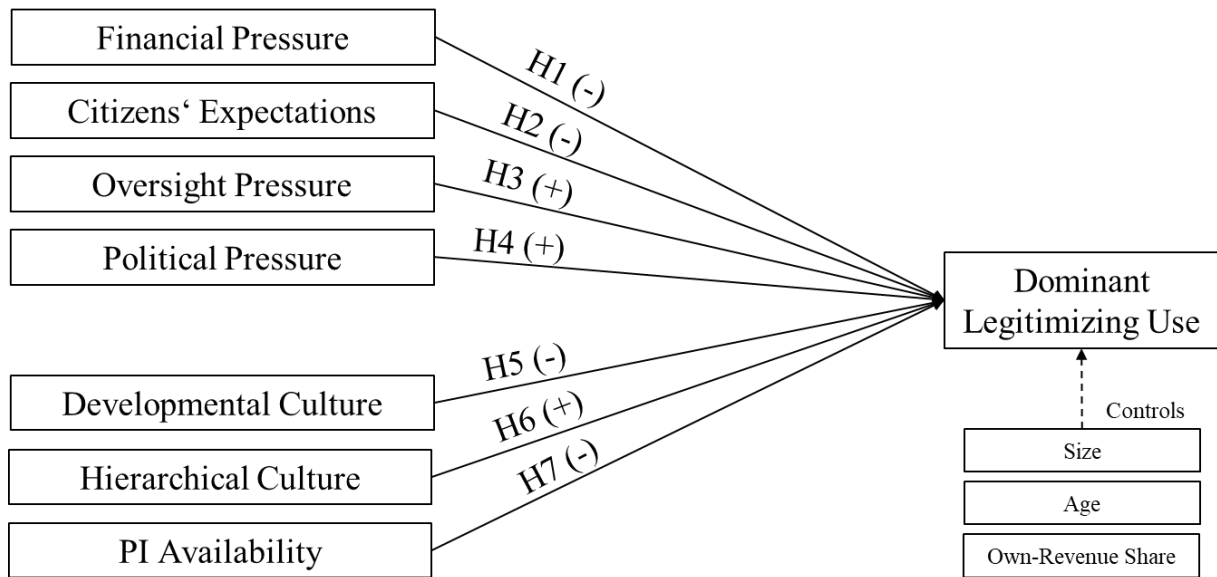
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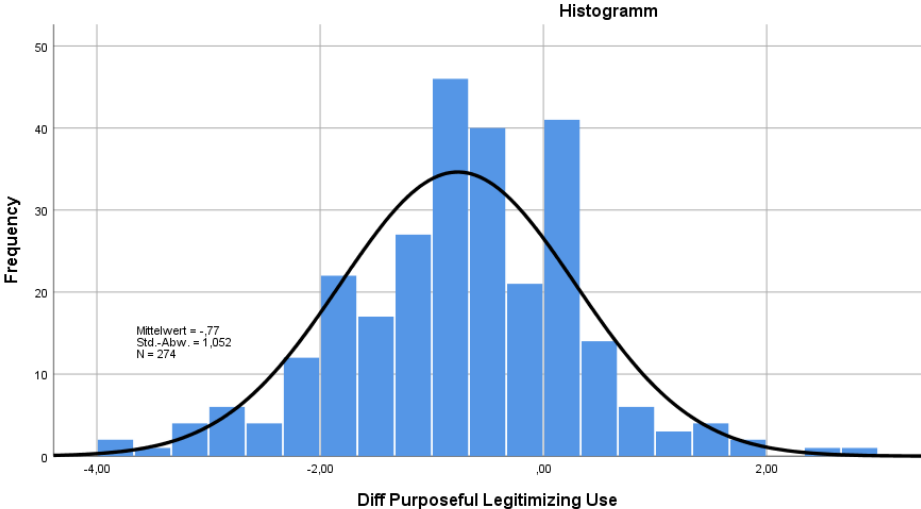
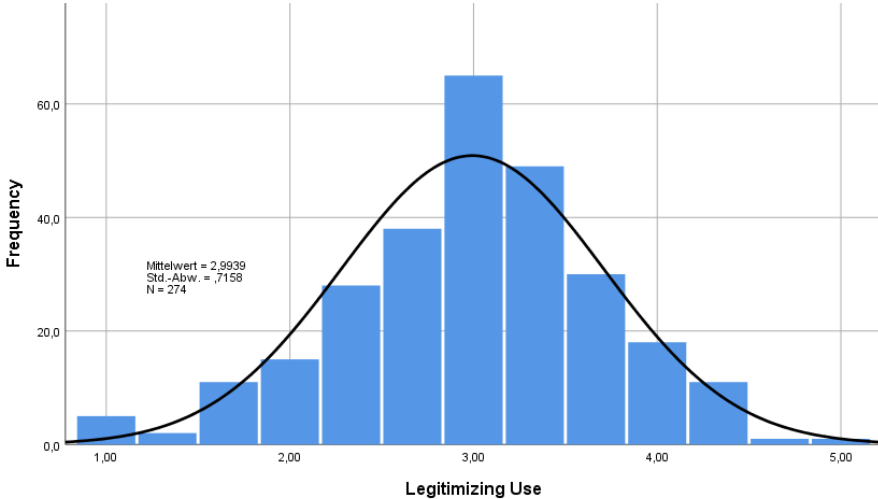
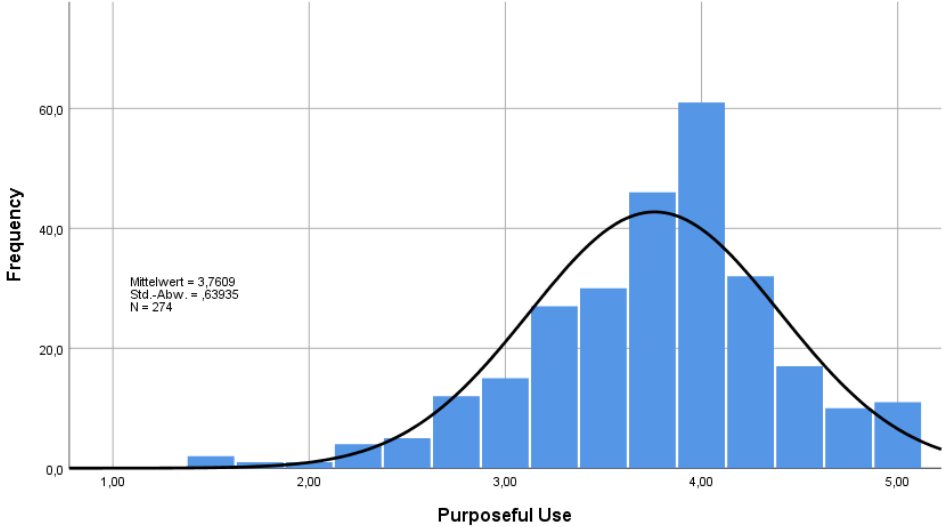
**Table 1: Regression Models**

<b>Independent variables</b>	<b>1st model (base) n =274</b>	<b>2nd model n =274</b>	<b>3rd model n =274</b>	<b>Combined model (n=274)</b>
	Beta (S.E.)	Beta (S.E.)	Beta (S.E.)	Beta (S.E.)
Age	-0.070 (.040)	-0.072 (.038)	-0.012 (.039)	-0.019 (.037)
Population (ln)	-0.186 (.091)***	-0.178 (.086) ***	*-0.206 (.086)***	-0.192(.082)***
Own Revenue Share	-0.030 (.006)	-0.006 (.006)	-0.046 (.006)	-0.025 (.005)
Financial Pressure		-0.060 (.078)		-0.070 (.075)
Citizens' Expectations		-0.112 (.070)**		-0.076 (.068)
Oversight Pressure		0.214 (.064)***		0.192 (.061)***
Political Pressure		0.269 (.058)***		0.238 (.057)***
Developmental Culture			-0.174 (.021)***	-0.165 (.020)***
Hierarchical Culture			0.202 (.018)***	0.122 (.018)**
PI Availability			-0.108 (.032)*	-0.119 (.030)**
R <sup>2</sup>	0.048	0.196	0.171	0.280
Changes in R <sup>2</sup> (base)	0.048	0.148	0.123	0.231
R <sup>2</sup> adjusted	0.037	0.175	0.152	0.252
F changes (base)	4.540	12.234	13.214	12.071
Sig. Change in F		0.000	0.000	0.000

**Figure 1: Conceptual Model**



**Figure 2:** Purposeful and Legitimizing Use of Performance Information Use Patterns in Local Governments



## Appendix 1: Factor Analysis

	Mean	S.D.	Rotated Component Matrix		Cronbach Alpha
			1	2	
<b>Purposeful Use</b>	<b>3.76</b>	<b>0.64</b>			<b>0.8</b>
rational decisions	3.93	0.8	<b>0.75</b>	-.06	
cost reduction	3.76	0.86	<b>0.78</b>	-.05	
decision quality	3.81	0.81	<b>0.77</b>	-.03	
discussed regularly	3.54	0.85	<b>0.75</b>	-.15	
<b>Legitimizing Use</b>	<b>2.99</b>	<b>0.72</b>			<b>0.60</b>
making ,politics‘	2.65	0.97	-.27	<b>0.69</b>	
legitimizing taken decisions	3.04	0.99	0.16	<b>0.75</b>	
specific requests	3.3	0.92	-.13	<b>0.78</b>	
<b>Eigenfaktor</b>			2.6	1.51	

## Appendix 2: Operationalization of the variables

Factors	Items	Scale
<i>Performance information use type</i>		
Managerial Use	<i>Prefix:</i> ‘In my organizational context, existing performance measures...’	Five-point Likert Scale
	are used to make more rational decisions	1=strongly disagree; 5=strongly agree
	are used to reduce costs	1=strongly disagree; 5=strongly agree
	are used to improve the quality of decisions	1=strongly disagree; 5=strongly agree
	Is discussed regularly within decision making processes	1=strongly disagree; 5=strongly agree
Legitimizing Use	are mainly used for policy making (in the sense of ‘politics’)	1=strongly disagree; 5=strongly agree
	are mainly used to legitimize already taken (political) decisions	1=strongly disagree; 5=strongly agree
	are mainly developed on specific requests	1=strongly disagree; 5=strongly agree
<i>Contextual factors</i>	<i>Question instruction:</i> ‘Please rate the extent to which the following factors drove change in your local government’	Five-point Likert Scale
Financial pressure	rising financial austerity/budgetary constraints	1=strongly disagree; 5=strongly agree
Oversight pressure	audits, reports or pressure by oversight bodies	1=strongly disagree; 5=strongly agree
Political pressure	political party pressure	1=strongly disagree; 5=strongly agree

Citizens' expectations	demand and expectations by citizens	1=strongly disagree; 5=strongly agree
<b>Performance information availability</b>	<b>Question instruction:</b> 'Please rate the extent to which the following indicators are available in your organization'	Four-point scale
	efficiency indicators	1=not available, 2=partly available, 3=mainly available, 4=available
	satisfaction indicators	1=not available, 2=partly available, 3=mainly available, 4=available
	effectiveness indicators	1=not available, 2=partly available, 3=mainly available, 4=available
<b>Organizational culture</b>	<b>Question instruction:</b> 'Please rate the extent to which you agree with the following statements: I think that (in) my local government...'	Seven-point Likert Scale
Hierarchical culture	work tasks for the staff are regulated in such a strict manner, that if required, no employee could assume another task'	1=strongly disagree; 7=strongly agree
	is organized in a strictly hierarchical way	1=strongly disagree; 7=strongly agree
	bureaucratic procedures generally govern what people do	1=strongly disagree; 7=strongly agree
Developmental culture	strongly supports innovative ideas and solutions	1=strongly disagree; 7=strongly agree
	managers are willing to stick their necks out and encourage employees to take risks and be innovative	1=strongly disagree; 7=strongly agree
	creativity is supported by specific measures	1=strongly disagree; 7=strongly agree



**Appendix 3: Descriptives and Pearson Correlations**

	Mean	S.D.	Range	Number of Items	C.A.	1	2	3	4	5	6	7	8	9
<b>(1) Purposeful Use</b>	3.76	0.64	1 -5	4	0.8	1								
<b>(2) Legitimizing Use</b>	2.99	0.72	1 -5	3	0.6	-,203**	1							
<b>(3) Financial Pressure</b>	4.16	0.81	1 -5	1		0.067	0.078	1						
<b>(4) Supervisory Pressure</b>	3.61	0.84	1 -5	1		-,147*	,283**	,368*	1					
<b>(5) Political Party Pressure</b>	3.32	1.06	1 -5	1		-,173**	,315**	0.018	,322*	1				
<b>(6) Citizen Pressure</b>	2.42	1.07	1 -5	1		,143*	0.041	0.033	,120*	,141*	1			
<b>(7) Developmental Culture</b>	4.99	1.08	1 -7	3	0.84	,369**	-0.055	0.036	0.068	0.023	0.087	1		
<b>(8) Hierarchical Culture</b>	3.14	1.12	1 -7	3	0.61	-,129*	,258**	0.082	,120*	,233*	0.085	-,287**	1	
<b>(9) P Information Availability</b>	2.91	0.69	1 - 4	3	0.71	,280**	-0.091	0.009	0.015	0.002	0.075	,425**	-,186**	1

\* Correlation is significant at the .05 level (2-tailed)

\*\* Correlation is significant at the .01 level (2-tailed)

**Appendix 4: Regressions on Purposeful and Legitimizing Use**

	Purposeful Use		Legitimizing Use	
	Beta	S.E.	Beta	S.E.
Age	0.059	0.091	0.025	0.079
Own Revenue Share	0.054	0.013	0.012	0.012
Population (ln)	0.117*	0.203	-0.177***	0.176
Financial Pressure	0.122**	0.338	0.006	0.292
Citizen Expectations	0.137**	0.306	0.011	0.264
Oversight Pressure	-0.127**	0.275	0.168**	0.238
Political Pressure	-0.147**	0.258	0.218***	0.223
Developmental Culture	0.305***	0.049	0.029	0.042
Hierarchical Culture	0.024	0.045	0.200**	0.039
P Information Availability	0.128**	0.074	-0.061	0.064
R <sup>2</sup>	0.248		0.202	
R <sup>2</sup> adjusted	0.220		0.172	

\*significant at 10%; \*\*significant at 5%; \*\*\*significant at 1%.