

# **E-government in municipalities: the relationship between organizational culture, need for closure and commitment to change**

## **Abstract**

In this study a survey is issued to explore the relationship between organizational culture, need for closure and commitment to change in the context of organizational change within the framework of the implementation of e-government programs. The results of the survey show that within a public organization subcultures with a mainly internal or external focus can be identified. These subcultures are related the internal or external focus of an employee's job description. Differences in need for closure and commitment to change have been found between the identified subcultures. Employees in an externally focused job and subculture were found to have a higher need for closure than employees in an internally focused job and subculture. Furthermore, employees in an internally focused subculture were found to have a higher commitment to change.

## **Points for practitioners**

This study offers several practical outcomes for managers in the public sector that are facing the challenge of implementing e-government. First, the results show that there are differences in how groups of employees experience organizational change. They belong to different subcultures, have a different focus in their day-to-day job and will therefore have different needs in an organizational change process. Second, employees with a more internally focused job description will probably be less conscious of the changes organizations in the public sector are facing. When implementing e-government, attention may be needed for this group of employees to bring about a shift towards external focus. Third, employees in an externally focused job may need more information and clear answers about the future of their job and the outcomes of the change.

Keywords: Administrative reform, Competing Values Framework, New Public Management, organizational change, public management, resistance to change, uncertainty

Article word count: 8.038 words, references excluded

**Author**

Marieke Schütten  
Assendorperstraat 157  
8012 DL Zwolle  
The Netherlands

Email: [mariekeschutten@gmail.com](mailto:mariekeschutten@gmail.com)

Tel: +31-(0)6-17151411

Thesis for the master Communication Studies at Twente University, Enschede, The Netherlands

## ***Introduction***

Over the last decennium, e-government has been the field of much research. Scholars have examined a broad scope of subjects within this field, including organizational change, to what extent goals of the New Public Management (NPM) movement have been met and technical and organizational prerequisites for success. A conclusion that can be drawn from most of this research is that e-government has not reached its full potential by bearing the fruits it promised (Burn & Robins, 2003; Moon, 2002; Pillay, 2008). In the last couple of years, there have been many developments when it comes to e-government (Lane, 2000). In line with the idea of NPM, numerous change programs were started in governmental organizations all over the world to encourage cost efficiency, productivity and customer orientation in the public sector by using ICT applications. However, the change processes that are part of the introduction of e-government are slow and difficult (Hood & Peters, 2004; Moon, 2002).

Scholars have focused on both technical and human factors in organizational change processes. It is reasoned that especially human factors - the employees that have to make the changes work - are sometimes overlooked in the change process (Archer, 2003). Several scholars, however, reason that organizational change needs to be supported by employees. Commitment to change will help to avoid resistance and better predict behavioral support for the change (Herscovitch & Meyer, 2002; Allen & Meyer, 1990). Commitment to change is considered to be a key variable in the success or failure of a change initiative (Herscovitch & Meyer, 2002). Resistance to change by employees is even considered one of the main reasons for transformation processes and technological innovation not to succeed (Welp et al., 2007). Furthermore, organizational culture is mentioned as an important factor in organizational change and resistance to change (Bluedorn & Lundgren, 1993; Cameron & Quinn, 2006; Laking & Norman, 2007; Quinn & Spreitzer, 1991; Zammuto et al., 2000). A similar change in organizational culture is considered a prerequisite for any change process to be successful (Bluedorn & Lundgren, 1993). However, the cultural aspect of the e-government change process has received relatively little attention in research on e-government in the past years (Bradley & Parker, 2006; Detert et al., 2000; Pillay, 2008).

In this article it is proposed that the lack of attention for cultural change during an e-government change initiative may be contributing to the fact that e-government has not reached its full potential yet. Therefore, the relationship between organizational culture and commitment to change in an e-government change initiative is examined. Previous research on organizational culture in the public sector has shown that public organizations are still characterized by the bureaucratic, hierarchical type of culture (Bradley & Parker, 2006; Quinn & Rohrbaugh, 1983). Customer orientation ideas from the New Public Management movement suggest, however, that public organizations should have a more flexible and externally oriented type of culture (Korunka et al., 2005). In this study it is proposed that a possible reason for this lack of shift in culture is to be found in the differences in culture within a single

organization. Moreover, in order to achieve commitment to change, information need is an important issue in change initiatives: employees need to be and feel well informed about the changes that are about to come (Ebbers & Van Dijk, 2007). Organizational change is often accompanied by employee uncertainty (Bordia et al., 2004). In such a situation employees have a need for closure: a desire for definite knowledge about the future of their job. A good strategy on internal communication during the whole change process can play an important role in satisfying the need for closure and acquiring commitment to the change initiative. For that reason, in this study, the relationship between organizational culture, the need for closure and commitment to change is investigated in order to guide organizational change processes in the context of e-government. In the next section, first background information on the developments in the context of e-government will be given. Then the relevant literature and hypotheses will be discussed. Finally, the results and conclusion will be considered.

## ***Background***

Many of the current changes in the public sector track back to the rise of the ideas of New Public Management (NPM) in the 1980s (Pillay, 2008). Central to NPM is the idea that best practices from the private sector should be implemented in the public domain. This shift encompasses more focus on productivity, (cost) efficiency and decentralization (Gregory, 2007). Another important issue in NPM is, similar to the private sector (Korunka et al., 2005), the emphasis on customer orientation. Public services had to be improved in order to better meet customer's needs (Pieterse et al., 2007).

The ideas of New Public Management have been adopted and implemented in many countries in many different ways and it has been called reinventing or change government, modernization of the state or just New Public Management (Hood, 1995; Osborne & Gaebler, 1992; Pollit & Bouckaert, 2004). NPM can not be seen as uniformly received body of thought: the changes that NPM suggests are always depending on the specific challenges, values, norms and routines of the political and administrative settings it is introduced in (Hood, 1991). The results of NPM across the universe therefore have been diverse (Hood, 1995; Moon, 2002).

Another important development in this context occurred in the 1990s with the rise of information and communication technologies (ICT). The internet became more and more wide spread around the world and this new technology appeared to be the perfect channel to improve public services and make the public sector more cost efficient. This line of thought, where ICT applications are used to provide citizens with the information and services they need is referred to as e-government (Burn & Robins, 2003). E-government is defined as 'the continuous optimization of service delivery, constituency participation and governance by transforming internal and external relationships through technology, the Internet and new media' (Gartner Group, 2000).

In line with the ideas of NPM and e-government, the Dutch government presented a plan of action called 'Andere Overheid' ('Different Government') in 2003. The main goal of this change program was to have 65 percent of all Dutch public services available online in 2007. The program's goal was an improvement of the public services to citizens and lower costs and administrative burden in the public sector (Pieterson et al., 2007; Van Dam & Timmer, 2006). In many Dutch municipalities this goal was and has still not been met.

Another objective of the 'Andere Overheid' program was the renewal of the relationships between the national government and municipalities. The most important change in this relationship would be that municipalities had to become the main access point to the government for citizens and organizations. To accomplish this goal, a Customer Contact Centre (CCC) has to be set up in every Dutch municipality. All forms of communications between government and her customers have to be dealt with by the CCC. The ultimate goal of the CCC is that, by rearranging the municipal front- and backoffice, 80 percent of all first contacts between government and her customers should be directly dealt with by the CCC in 2015. The development of the CCC's is guided by an implementation plan called the 'Answer<sup>®</sup>' method (Hiemstra & De Vries et al., 2007). The current challenges for municipalities are the rearrangement of the front- and backoffice and the set up of the Customer Contact Centres.

## ***Theory and hypotheses***

The programs that have been set up to bring about the desired effects of e-government bring about enormous change processes for municipalities and its employees. In the last decennia, a tremendous body of research has been conducted on change processes and the impact organizational change has on employees (e.g. Bordia et al., 2004; O'Driscoll & Beehr, 1994; Rafferty & Griffin, 2006; Weick & Quinn, 1999). A wide range of factors are important to consider when engaging in a change process, but in this article is focused on the importance of three concepts: commitment to change, need for closure and culture. Herscovitch and Meyer (2002) consider commitment to change to be a key variable in the success or failure of a change process. Furthermore, employees need the right information at the right time, especially during stressful change initiatives. However, between individuals there are differences in the amount of information needed. Therefore, in this article is focused on the need for closure, which reflects an individuals' desire for a firm answer to a question and an aversion towards ambiguity (Webster & Kruglanski, 1994). Third and most importantly, in this article is focused on the significance of organizational culture in a change process. For a change initiative to succeed, not only the organizational structure has to change, but the organizational culture has to change along to be able to see results (Bradley & Parker, 2006). In this section of the article, a view will be given on these subjects and differences within an organization that may influence these factors during a change situation.

## Culture

As mentioned in the previous sections, implementation of the intended changes in public organizations has not been completely successful for several reasons. Employees' negative reactions to change, like ownership tensions, resistance and uncertainty, are factors that can delay or thwart these processes (Burn & Robins, 2003; Miller, 2006). In the introduction it was already noted that organizational culture can play an important role in change processes and resistance to change. Cultural characteristics may even play a key role when it comes to success or failure of organizational innovations (Detert et al., 2000; Bluedorn & Lundgren, 1993). There has been much discussion on the definition of the concept of culture (Brown & Starkey, 1994; Martin, 2002; Martin & Frost, 1996; Ouchi & Wilkins, 1985), but researchers seem to have reached an agreement on four issues when it comes to culture: culture is complicated, culture is emergent, culture is not unitary and culture is often ambiguous (Miller, 2006).

Quinn and Rohrbaugh (1983) developed the Competing Values Framework (CVF) typology, which could be used in an organizational context, for instance as a strategic tool to develop supervision and management programs. Several studies have shown that it is also a suitable instrument to help organizations diagnose their existing and desired organizational culture (Bradley & Parker, 2006; Zammuto & Krakower, 1991). The CVF consists of two super ordinate value continua: flexibility-control and internal-external. The flexibility-control continuum represents the way organizations handle their internal components, while simultaneously meeting the external challenges of competition, adaptation, and growth. The internal-external continuum represents how well the organization manages demands for change arising from its environment, while simultaneously maintaining continuity (Kalliath et al., 1999). The contents of the four quadrants, resulting from the continua, reflect the primary value orientation of most organizations. The CVF consists of the following quadrants (Quinn & Rohrbaugh, 1983; Kalliath et al., 1999):

**Human relations model:** The flexibility and internal focus quadrant. This culture type emphasizes the training and broader development of human resources to enhance employee morale and cohesion. Greater levels of trust and participation through teamwork are usually associated with this model. Managers in this quadrant seek to mentor and encourage employees.

**Open systems model:** The flexibility and external quadrant. Focus on innovation and entrepreneurship. Growth and resource acquisition are important and managers tend to award individual initiative.

**Rational goal model:** The control and external focus quadrant. A rational culture due to the emphasis on outcomes and goal fulfilment. Organizations like this are production oriented and managers tend to emphasize outcomes, productivity and efficiency.

**Internal process model:** The control and internal focus quadrant. The traditional bureaucratic model of public sector culture. It is a hierarchical culture where information

management and communication are utilized to achieve stability and control. Managers encourage rule enforcement, conformity and attention to technical matters. Internal process organizations stress routinization, centralization, control, stability, continuity and order.

Figure 1 gives a visual representation of the quadrants of the Competing Values Framework by Quinn and Rohrbaugh (1983).

[INSERT FIGURE 1 HERE]

Although these four culture types appear to be incompatible, research has suggested that the different models of culture can and do coexist in the same organization (Parker & Bradley, 2000; Howard, 1998). A balance between the four culture types is regarded as most desirable for good organizational performance (Quinn & Spreitzer, 1991). The CVF has been used in a number of studies to investigate organizational culture (Bradley & Parker, 2006) and several studies have demonstrated the utility of the framework for investigating organizational culture (Harris & Mossholder, 1996; Howard, 1998; Kalliath et al., 1999; Lamond, 2003).

In this research context especially the notion of cultural unity is considered important: scholars have agreed upon the idea that an organization can not be characterized as having one single culture. In this respect, Parker and Bradley (2000) and Martin and Frost (1996) speak of a differentiation perspective on cultural change, which holds the idea that there is no such thing as an organization-wide consensus or value framework. Gregory (1983), Brown and Starkey (1994) and Hofstede (1998) also state that within an organization different subcultures are identifiable. Martin and Frost (1996) link the importance of subcultures within organizations to demographics or professional occupational categories. Zammuto and Krakower (1991) performed a cluster analysis on their research data from a group of 332 colleges and universities and their results suggest that larger organizations have distinctive subcultures.

In e-government and New Public Management, the most important and anticipated shift is from an internal focus to an external orientation. Therefore, in this article the focus within the CVF will be on the internal-external axis of the model. From these notions on culture in organizations, it is hypothesized that in a public organization different subcultures can be identified.

*Hypothesis 1: Within public organizations, different subcultures can be identified that have either an internal or an external focus.*

For change to be successful there has to be a change in processes and structure (Kotter, 1995). Cultural change, however, should never be left out: organizational culture can have an influence on organizational and individual outcomes (Marcoulides & Heck, 1993), like financial performance,

internal development and strategic success (Howard, 1998). It is mentioned before that NPM and e-government have encouraged a shift away from the bureaucratic model towards customer orientation. In terms of the CVF this means a shift from the internal process model type of culture towards the open systems model. Bradley and Parker (2006) tested in an Australian context whether this shift had really taken place in the public organization. The results of their study indicate that public sector organizations are still characterized by an internal process culture which focuses on internal issues, and has an orientation towards control rather than flexibility (Bradley & Parker, 2006).

However, there is a reason to believe that within organizations change is experienced differently by groups of employees (Berg, 2006). Berg et al. (2002) found in a study of major government services in Norway that front-line personnel and top-level managers have different perceptions of organizational reforms. They also found variations between groups of employees on the same level. Reasoned from an organizational culture perspective, these variations may be the result of differences in subcultures between groups of employees within an organization. Also, from theory on street-level bureaucracies (Lipsky, 1980) and the nature of their job description, it can be reasoned that managers focus on internal processes, and that lower level employees are more focused on external processes, because of their direct contacts with citizens and other organizations.

From this line of argument, it is hypothesized that managers have a more internally focused subculture and lower level employees have a more externally focused subculture.

*Hypothesis 2A: Managers have a more internally focused subculture than lower level employees.*

In their study, Bradley and Parker (2006) measured culture in the public sector organization-wide. However, in line with the idea of different subcultures in a large organization and organizational change being experienced differently by groups of employees within the same organization, it is here hypothesized that there are differences in cultural focus between groups of employees. Within a municipality, the jobs of certain groups of employees will be primarily focused on internal affairs, whereas other groups of employees will be primarily focused on customer related tasks. It is therefore expected that these differences are reflected in differences in subcultures.

*Hypothesis 2B: Employees with a job focusing on contacts with internal groups of clients are characterized by a more internally focused subculture than employees with a job focusing on contacts with external groups of clients.*

## **Commitment to change**

So far, it is stated that the introduction of E-government leads to major changes in an organization. In the beginning of this section it was already stated that several factors are important during organizational change in order for the change to be successful. One factor that can thwart a change



initiative is the lack of support for the change among employees. For a successful change initiative, support from employees is needed (Hartkamp et al., 2008; Herscovitch & Meyer, 2002). Commitment to change is said to be a good predictor of support for change (Herscovitch & Meyer, 2002). In the Three Component Model (TCM), distinguished by Allen and Meyer (1990), there are three components of organizational commitment: affective commitment, continuance commitment and normative commitment. Continuance commitment is the result of fear of costs in case of noncompliance and normative commitment is defined as a perceived obligation to remain in the organization (Meyer et al., 2002). Affective commitment is referred to as 'the desire to provide for the change based on a belief in its inherent benefits' (Herscovitch & Meyer, 2002, p. 475) and is considered to be the most preferred type of commitment to change. Employees support the organization out of free will and because they believe sincerely in their organization's cause. Meyer and Allen (1991) argued that employees who want to remain in an organization (affective commitment) are likely to perform assigned tasks to the best of their ability, do little extras to help out and their absenteeism is low (Herscovitch & Meyer, 2002).

In recent studies the validity of the TCM, however, has been questioned. Solinger et al. (2007) argue that it has been shown in an accumulation of studies that the model is not fully consistent with empirical findings. The empirical criticism of the TCM has mainly revolved around two issues of construct validity topics: the position of continuance commitment as a dimension of the overall commitment construct and the relation between normative and affective commitment (Solinger et al., 2007). Affective commitment of all three dimensions was found to correlate strongest and with the widest range of behavioral criterion variables, such as attendance, performance and organizational citizenship behaviors (Solinger et al., 2007). Also, affective commitment represents the most reliable and strongly validated dimension of organizational commitment, with the greatest content and face validity. For these reasons, affective commitment has been preferred as the core concept of organizational commitment by many authors and it has been used as the sole indicator of commitment to the organization in many recent studies (Solinger et al., 2007). Therefore, in this study only affective commitment to change will be considered.

According to Zammuto et al. (2000), orientation towards change can be the result of the organizational culture. They propose that internal process model cultures are marked by a relatively high level of resistance to change, whereas open system model cultures are associated with a focus on change. Berg (2006) suggests several explanations for resistance to change in an internal process model culture, such as ambiguities in organizational culture, or they may be attributed to bureaucratic incompetence, deficiencies in bureaucratic control, conflicts of interest between policy makers and bureaucratic agents, or ambiguities in the policy making process. Openness to change and readiness for change, however, are positively related to affective commitment to change (Herscovitch and Meyer, 2002). As stated before, within CVF the open systems model is associated with an orientation towards change and the internal process model is associated with a resistance to change (Kalliath et al., 1999; Zammuto et al., 2000; Zammuto & Krakower, 1991). Since in the sections of CVF with

external focus change is more promoted or valued than in sections of CVF with an internal focus, it is expected that employees with a more external focused type of culture will show more affective commitment to change than employees in a more internal focused type of culture.

*Hypothesis 3A: Employees in a more external focused type of culture will show more affective commitment to change than employees in a more internal focused type of culture will.*

Similar to the line of thought in hypotheses 2B and 3A, it is expected that there is an effect of the type of job of certain groups of employees on commitment to change. It is expected that employees with a job primarily focusing on customer related tasks will show more affective commitment to change than employees with a job primarily focusing on internal affairs.

*Hypothesis 3B: Employees with a job focusing on contacts with internal groups of clients will show more affective commitment to change than employees with a job focusing on contacts with external groups of clients.*

In the previous section it was already argued that managers may have a more internally focused subculture than lower level employees. Concerning the internal-external axis of the CVF, therefore, they are expected to be more on the internal half than on the external half of the CVF. Elaborating on this line of thought, culturally managers are more in the sections of the CVF where change is not promoted, maybe even resisted, like in the internal process model. It is therefore hypothesized that managers will show less affective commitment to change than lower level employees.

*Hypothesis 3C: Managers will show less affective commitment to change than lower level employees.*

## **Information need and need for closure**

A shift in organizational culture and gaining commitment to the change are stated to be important factors to make a change initiative successful. For commitment to change to occur, information about the change is also a prerequisite (Hargie & Tourish, 2000). According to Hargie and Tourish (2000) a failure to be open in communications may even result in a decrease in commitment. Ebbers and Van Dijk (2007) state that, when an innovation is introduced, sufficient and correct information is needed for employees to be able to support it. In their model on the adoption and implementation of e-government services, Ebbers and Van Dijk argue that clarification is an important factor in change processes. By clarification they mean, employees' need for clear information about what the innovation is, how it works and what the consequences of the innovation are for different groups of employees and their day-to-day work.

Change processes are cognitively very demanding (O'Driscoll & Beehr, 1994; Rafferty & Griffin, 2006) and lead to uncertainty among employees (Bordia et al., 2004; Hargie et al., 2002). High uncertainty is

a stimulus for information seeking behaviors (Hargie et al., 2002). Uncertainty regarding organizational and personnel changes and the outcomes of these changes creates stress for employees. This can trigger employees to seek information to reduce stress and ambiguity concerning the change situation (Bordia et al., 2004; Kramer, 1999; Schweiger & Denisi, 1991; Steehouder, 1994). Clear information may help employees to better cope with organizational changes.

Webster and Kruglanski (1994) argue that people have a desire for definite knowledge on a certain issue. This so called need for closure refers to an individuals' desire for a firm answer to a question and an aversion toward ambiguity. The need for closure may vary among individuals as well as situations (Kruglanski et al, 2007). According to Webster and Kruglanski (1994) need for closure plays a central role in the way people process information and form subjective knowledge.

As mentioned earlier, a change situation can be very stressful for employees. Finding information on the change situation can be helpful to cope with the change. This may increase perceived control and reduce ambiguity. Kruglanski et al. (2007) mention that acceptance of organizational change is positively related to, among other factors, perceived control and negatively related to risk aversion. Moreover, they found a negative relationship between need for closure and coping with change. From these findings it may be expected that a high need for closure results in a low commitment to change. Therefore a negative relationship between need for closure and affective commitment to change is hypothesized.

*Hypothesis 4: Need for closure is negatively related to affective commitment to change.*

Cognitive needs, like the need for closure, are an important source of affiliative behavior (Shah et al., 1998). Schachter (1959) already stated that 'if one assumes a need for cognitive clarity, it is plausible to assume that attempts to reduce ambiguity will take the direction of intensive social behavior.' People reduce uncertainty or ambiguity through agreement or identification with in-group members (Hogg & Abrams, 1993). Within an organization, subcultures can be considered similar to in-groups.

People adopt the contents of ideologies when they are easily accessible in their belief system (Kossowska & Van Hiel, 2003). Meaning ideologies that correspond with easily available mindsets are more likely to be adopted than ideologies that don't correspond met easily accessible mindsets. From these ideas it can be suggested that subcultures, in being the most easily available mindset, will have great influence on which ideologies will be adopted and which will not.

Kruglanski and Webster (1991) found that social reality, meaning a person's "social reality" based on a consensus between in-group members, is particularly valued by those with a heightened need for closure. Shah et al. (1998) examined the relationship between social reality and in-groups, and need for closure in a series of studies. They found a link between the need for closure and the collective self-esteem, indicating that an individuals' degree of closure motivation relates to the degree to which

they value their in-group. Within in-groups, need for closure is found to have a strong positive effect on attitude agreement (Shah et al., 1998). Besides, high need for closure was found to increase the relative influence of the in-group member on participant's attitudes and beliefs (Shah et al., 1998). Shah and his colleagues also obtained evidence that need for closure is related to an individuals' tendency to adopt an attitude on a novel issue from an in-group source. Fu et al. (2007) also found that people with a high need for closure will be more inclined to adopt the main cultures view than people with a low need for closure.

In a previous section, it is argued that employees with an internal focused subculture will show less affective commitment to change. It is predicted in hypothesis 4 that need for closure is negatively related to affective commitment to change. Meaning people with a high need for closure will show less affective commitment to change. Following this line of thought, it is therefore hypothesized that employees in an internal focused subculture will show higher need for closure.

*Hypothesis 5A: Employees in an internal focused subculture will show a higher need for closure than employees in an external focused subculture.*

Similar to the line of thought in hypothesis 3B and 5A, it is expected that there is an effect of the type of job of certain groups of employees on need for closure. It is expected that employees with a job primarily focusing on internal affairs will show higher need for closure than employees with a job primarily focusing on customer related tasks.

*Hypothesis 5B: Employees with a job focusing on contacts with internal groups of clients will show a higher need for closure than employees with a job focusing on contacts with external groups of clients.*

In a previous section, it is argued that managers, due to their job description, have a more internal focused culture than lower level employees. Therefore, it is hypothesized that managers show a higher need for closure than lower level employees.

*Hypothesis 5C: Managers show a higher need for closure than lower level employees.*

## **Hypotheses in this study**

In the current study it is hypothesized that in a public organization, different subcultures with a primarily internal or external focus can be identified (H1). Employees with a job focusing on contacts with internal groups of clients are characterized by a more internally focused subculture than employees with a job focusing on contacts with external groups of clients (H2B). Employees in a more external focused type of culture will show more affective commitment to change than employees in a more internal focused type of culture (H3A). Employees with a job focusing on contacts with internal groups of clients will show more affective commitment to change than employees with a job focusing

on contacts with external groups of clients (H3B). Employees in an internal focused subculture will show a higher need for closure than employees in an external focused subculture (H5A). Employees with a job focusing on contacts with internal groups of clients will show a higher need for closure than employees with a job focusing on contacts with external groups of clients (H5B). On differences between managers and lower level employees it is hypothesized that managers have a more internally focused subculture (H2A), they will show less affective commitment to change (H3C) and a higher need for closure than lower level employees (H5C). Furthermore it is hypothesized that need for closure is negatively related to affective commitment to change (H4). Figure 2 shows a graphic representation of the hypothesized relationships that are tested in this article.

[INSERT FIGURE 2 HERE]

## **Research method**

To collect data, an electronic survey has been administered to the employees of a large municipality in the Netherlands. The municipality has approximately 1200 civil servants and 118.000 inhabitants. Since the questionnaire discusses the changes that are involved in e-government and the change process was not enrolled in the entire organization yet, only the 233 employees who were already involved in the preparations for those changes were asked to fill out the questionnaire. The rest of the employees were not enough involved in the changes concerning e-government and their implications and were therefore considered not fit to fill out the questionnaire. Finally, 92 usable questionnaires were returned, which means the response rate was 39.5%. The sample included 46 men and 46 women and their mean age was 44.02 (SD = 10.05).

## **Measurement**

The survey that was administered consisted of five sections. The first section consisted of six demographical and background questions. The second section encompassed the competing values instrument for organizational culture used by Zammuto and Krakower (1991), which was translated to Dutch. The instrument consisted of six questions and was validated by several scholars (e.g. Howard, 1998; Kalliath et al., 1999; Quinn & Spreitzer, 1991). The third section consisted of 18 items from the need for closure scale, which was translated and validated for use in The Netherlands by Cratylus (1995). Section five consisted of the remaining twelve items from the need for closure scale. The need for closure scale includes statements like, *'I don't like situations that are uncertain'*, *'I think it is fun to change my plans at the last moment'* and *'I enjoy having a clear and structured mode of life'*. Need for closure was measured on a five-point Likert scale (1 = I totally disagree, 5 = I totally agree). A high score on the scale signifies a high need for closure. The need for closure scale, consisting of 30 items in total, showed satisfactory reliability (Cronbach's  $\alpha = .74$ ) and was therefore recoded into one variable and used as such in further data analysis. In the fourth section affective commitment to change was measured by means of the scale used by Herscovitch and Meyer (2002). The affective

commitment to change scale includes statements like, '*I believe in the value of this change*' and '*This change serves an important purpose*'. Affective commitment to change is measured on a five-point Likert scale (1 = I totally agree, 5 = I totally disagree). A low score on the scale signifies a high commitment to change. The commitment to change scale showed satisfactory reliability (Cronbach's  $\alpha = .87$ ) and was therefore recoded into one variable and used as such in further data analysis.

The changes concerning e-government are relatively broad and diverse, so in this study affective commitment to change is measured specifically when it comes to the changes around the realization of the Customer Contact Center. At the time the data collection took place, the plans for the development of the Customer Contact Center were recently introduced in the organization. This made it easier for the employees that filled out the questionnaire to relate to a tangible and representative example of e-government.

In this study is primarily focused on differences between an internal or external focus, both within the CVF and concerning the main point of employees' contacts and tasks. The assumption is that the tasks that are carried out in departments and the connections employees within these departments have in- and outside the organization influence their subculture. Therefore, the departments in which employees work were divided into primarily internally focused or primarily externally focused. That way the effect of the department in which one works on subculture, need for closure and commitment to change is measured.

## **Results**

With this dichotomous the Competing Values Framework was analyzed. Figures 3 and 4 show the results for respectively the CVF for employees in internally focused departments and the CVF for employees in externally focused departments.

[INSERT FIGURES 3 AND 4 HERE]

A chi-square test was used to test the first hypothesis on different subcultures in a public organization ( $\chi^2(2600, N = 73) = 3229.24, p = .00$ ), which did support the hypothesis.

Hypothesis 2A predicted that managers are characterized by a more internally focused subculture than lower level employees. To test this hypothesis, organizational culture has been recoded into a dichotomous along the axis of the internal-external focus in culture. A chi-square test ( $\chi^2(4, N=70) = .201, p = .654$ ) showed no support for hypothesis 2A. Hypothesis 2B suggested that employees with a job focusing on contacts with internal groups of clients are characterized by a more internally focused subculture than employees with a job focusing on contacts with external groups of clients which signifies that the department in which employees work and the type of subculture they are in are related. A chi-square test ( $\chi^2(4, N = 70) = 4.419, p = .036$ ) confirmed this hypothesis.

Hypothesis 3A argued that employees in a more external focused culture show more affective commitment to change than employees in a more internal focused culture. An independent-samples T test showed the opposite: employees in an internal focused culture ( $M = 1.54$ ,  $SD = .59$ ) show a significantly higher affective commitment to change than employees in a more external focused culture ( $M = 2.32$ ,  $SD = 1.18$ ),  $t(69) = -3.52$ ,  $p = .001$  (two-tailed). In hypothesis 3B suggested that the departments in which employees work have an effect on their affective commitment to change. An independent-samples T test showed no support for this hypothesis. Employees in an internally focused department ( $M = 1.55$ ,  $SD = .60$ ) don't show more commitment to change than employees in an externally focused department ( $M = 1.87$ ,  $SD = .96$ ),  $t(74) = -1.72$ ,  $p = .09$ . Hypothesis 3C presumed that managers will show less affective commitment to change than lower level employees. In an independent-samples T test managers ( $M = 1.49$ ,  $SD = .54$ ) did not show less affective commitment to change than lower level employees ( $M = 1.76$ ,  $SD = .85$ ),  $t(74) = -1.39$ ,  $p = .169$  (two-tailed).

In hypothesis 4 it was expected that need for closure is negatively related to affective commitment to change. To check for correlation a Pearson's correlation analysis was executed, which did not show a significant result ( $R = .20$ ,  $p = .08$ ). A regression analysis also did not show a significant result ( $F = 3.11$ ,  $p = .08$ ,  $\beta = .20$ ).

Hypothesis 5A suggested that employees in an internal focused subculture show a higher need for closure than employees in an external focused subculture. The opposite of this hypothesis is confirmed with an independent-samples T test. Employees in a more internal focused culture show a lower need for closure ( $M = 3.12$ ,  $SD = .28$ ) than employees in an external focused culture ( $M = 3.39$ ,  $SD = .24$ ),  $t(69) = -3.28$ ,  $p = .002$ . Hypothesis 5B predicted an effect of the department in which an employee works on need for closure. An independent-samples T test showed support for this hypothesis. Employees in an internally focused department ( $M = 3.10$ ,  $SD = .31$ ) show less need for closure than employees in an externally focused department ( $M = 3.25$ ,  $SD = .26$ ),  $t(74) = -2.33$ ,  $p = .02$ . Hypothesis 5C predicted that managers show a higher need for closure than lower level employees. An independent-samples T test did not confirm this hypothesis. Managers ( $M = 3.07$ ,  $SD = .28$ ) do not show a significantly lower need for closure than lower level employees ( $M = 3.20$ ,  $SD = .30$ ),  $t(74) = -1.85$ ,  $p = .08$ .

Figure 5 shows a visual representation of the relationships that were confirmed.

[INSERT FIGURE 5 HERE]

## ***Conclusion and discussion***

In this study The focus is on the influence organizational culture has on the implementation of change programs powered by the ideas of New Public Management and e-government. The aim of the current study was to better understand how organizational culture, need for closure and commitment to change are related in a change situation concerning e-government. In this section the meaning of the results will be discussed. The hypothesized framework serves as a starting point for more research on the subject.

Generally speaking, this study confirms that within an organization different subcultures can be identified and that organizational culture is an important factor to take into account in change processes concerning e-government. In this study especially the relationship between on the one hand organizational culture and on the other hand an employee's job description and the need for closure is evident. The results of this study show a relationship between the focus of an employee's job description and organizational culture. As predicted, employees with a job largely focusing on internal groups of clients and tasks view the organization's culture as more internally focused than employees with a job largely focusing on external groups of clients and tasks. This means that an employee's job description, the nature of one's work, can influence the way an employee experiences the values in an organization. In case of a desired shift in organizational culture, different groups of employees may be best served by different approaches.

Furthermore, organizational culture was found to be related to both need for closure and commitment to change. These relationships however were reverse to what was hypothesized: employees in a more internal focused subculture showed more commitment to change and a lower need for closure than employees in a more externally focused subculture. The focus of an employee's job description was also found to be directly related to need for closure. Employees in a primarily internal focused department showed less need for closure than employees in a primarily external focused department. A possible explanation for this finding is that it is especially the employees with a primarily externally focused job description that will face the greatest changes in their day-to-day work. It is likely that they will feel highly uncertain about the outcomes of the upcoming changes. Their need for information concerning the change and need for closure may therefore be higher. Another possible explanation may be that employees with an internally focused job description and subculture do not have to deal with as many relationships with different organizations, customers and other external contacts as employees with an externally focused job. The number of different relationships may raise the need to feel more secure and thus increase the need for closure of the employees with an externally focused job.

Another interesting conclusion from the results of this research is that, contradictory to previous research (Berg, 2006; Berg et al., 2002), there is no evidence found that managers view the change



situation concerning e-government differently from lower level employees. Managers do not show more or less commitment to change or higher or lower need for closure than lower level employees. There are several possible explanations for the absence of statistically significant results on differences between managers and lower level employees. A first possible explanation is the relatively low number of respondents in this study. It may have been too low to generate a statistically significant difference on these hypotheses. When reproduced with a larger number of respondents, these hypotheses may render significant differences. Second it may be that these factors in this specific e-government change situation do not differ among managers and lower level employees. This, however, would be contradictory to what was found in previous research (Berg et al., 2002), but considering the overall results of this research it is a possible explanation. Third, considering the selection of respondents for this study, it may be that the managers among the respondents were not that far ahead in the change process toward e-government as was expected. The respondents that were selected for this study were already very much involved in the change process, sometimes even the driving force behind the changes faced, which means that managers may not have been so much further in the change process on lower level employees. This may have caused a minimum in differences between managers and the questioned lower level employees.

Two remarks have to be made regarding measurement of organizational culture. In the current study, organizational culture was measured quantitatively. Over the years scholars have had many discussions on the notion whether culture should be measured quantitatively or qualitatively (Zammuto et al., 2000; Quinn & Spreitzer, 1991). Both ways of measurement have rendered valuable information in previous research (Zammuto & Krakower, 1991). Zammuto and Krakower (1991) argue that survey studies of organizational culture could result in a better understanding of the factors affecting the formation of and changes in organizational cultures and that the quantitative method can be used to provide an overview of general relationships between organizational culture and other characteristics of organizations within a sample (Zammuto & Krakower, 1991). Quinn and Spreitzer (1991) find that the quantitative instrument to measure organizational culture can be useful in organizational analysis, in the analysis of organizational change, and in the guidance of practitioners in the execution of organizational development interventions. Based on these arguments quantitative measured is considered an appropriate way of measurement for this study. A second remark concerning the measurement of organizational culture in this study is the inability of measuring mediating relationships within the hypothesized framework. Within this research design organizational culture was measured with the competing values instrument for organizational culture used by Zammuto and Krakower (1991), which is an ipsative type of measurement. Commitment to change and need for closure were both measured on a five-point Likert scale. Since it is impossible to compare these different kinds of measurement, the differences in type of measurement make it impossible to establish any type of mediating relationships. It is therefore suggested that in further research on this subject a different instrument will be used for measuring organizational culture. That way mediating relationships within this theoretical framework can be examined.

In general, from this study can be concluded that different subcultures can be identified within an organization and these subcultures are related to an employee's job description, need for closure and commitment to change. Employees in an externally focused job and subculture were found to have a higher need for closure than employees in an internally focused job and subculture. Furthermore, employees in an internally focused subculture were found to have a higher commitment to change.

## ***Implications***

This study offers several practical outcomes for managers in the public sector that are facing the challenge of implementing e-government. First, the results show that there are differences in how groups of employees experience organizational change. They belong to different subcultures, have a different focus in their day-to-day job and will therefore have different needs in an organizational change process. It is important to identify these groups and cater to their differences. In a (communication) strategy, goals can be tailored to these different groups to better suit their needs. Second, employees with a more internally focused job description will probably be less conscious of the changes organizations in the public sector are facing. These changes may not immediately and directly affect their job, but the overall external focus of the organization will one day reflect in their work. When implementing e-government, attention may be needed for this group of employees to bring about a shift towards external focus. Third, employees in an externally focused job may need more action to persuade them of the value of the changes to come. They will also need more information and clear answers about the future of their job. Uncertainty reduction is an important issue, particularly for externally focused employees.

The current study serves as a starting point for further research on the relation between organizational culture, need for closure and affective commitment in change situations. The results plead for future research to focus on the complex relationships between management and employees on the one hand and the characteristics of organizations and its employees in change processes on the other hand. It is proposed to repeat this study in future research with more respondents, in different types of governments and in more different departments within the governmental organizations to explore if the current results hold. In future research organizational culture can be measured differently so that mediation between the factors under study can be computed. That way the effect of organizational culture on need for closure and commitment to change can be further explored. Furthermore, the relationship between organizational culture on the one hand and need for closure and commitment to change on the other hand can be further explored. Differences between lower level employees and managers may turn up when research is done on a larger scale, with a broader group of respondents.

## References

- Allen, Natalie J. & Meyer, John P. (1990) "The measurement and antecedents of affective, continuance and normative commitment to change." *Journal of applied psychology* 63(1): 1-18.
- Archer, Michael (2003). Barbados customer service Improvement. Case studies and keynote speeches from the 2006 Commonwealth Seminar, Wellington, New Zealand.
- Berg, Anne M. (2006) "Transforming public services – transforming the public servant?" *International journal of public sector management* 19(6): 556-568.
- Berg, Anne M., Heen, Hanne & Hovde, Svein (2002) "The quality bureaucracy – between autonomy and control." The Work Research Institute, Oslo.
- Bluedorn, Allen C. & Lundgren, Earl F. (1993) "A culture-match perspective for strategic change." *Research in organizational change and development* 7(2): 137-179.
- Bordia, Prashant, Hunt, Elizabeth, Paulsen, Neil, Tourish, Dennis & DiFonzo, Nicholas (2004) "Uncertainty during organizational change: is it all about control?" *European journal of work and organizational psychology*, 13(3): 345-365.
- Bradley, Lisa & Parker, Rachel (2006) "Do Australian public sector employees have the type of culture they want in the era of new public management?" *Australian journal of public administration* 65(1): 89-99.
- Brown, Andrew, D. & Starkey, Ken (1994) "The effect of organizational culture on communication and information" *Journal of management studies* 31(6): 807-828.
- Burn, Janice & Robins, Greg (2003) "Moving towards e-government: a case study of organizational change processes." *Logistics Information Management* 16(1): 25-35.
- Cameron, Kim S. & Quinn, Robert E. (2006), *Diagnosing and changing organizational culture: based on the competing values framework* (2<sup>nd</sup> ed.). San Francisco, CA: Jossey-Bass.
- Cratylus (1995) "Need for closure (Nederlandse versie)." Amsterdam, Vrije Universiteit: Vakgroep Sociale Psychologie.

- Dam, Martijn van, & Timmer, Anja (2006) "Tussen het kastje en de muur. Project 'Kwaliteit van de publieke dienstverlening'." Retrieved oktober 1, 2007 from [www.pvda.nl/download.do/id/320058903/cd/true/](http://www.pvda.nl/download.do/id/320058903/cd/true/)
- Detert, James R., Schroeder, Roger G. & Mauriel, John J. (2000) "A framework for linking culture and improvement initiatives in organizations." *Academy of management review* 25(4): 850-863.
- Ebbers, Wolfgang E. & Van Dijk, Jan A.G.M. (2007) "Resistance and support to electronic government, building a model of innovation." *Government information quarterly* 24(3): 554-575.
- Fu, Jeanne H., Morris, Michael W., Lee, Sau-lai, Chao, Melody, Chiu, Chi-yue & Hong, Ying-yi (2007) "Epistemic motives and cultural conformity: need for closure, culture and context as determinants of conflict judgments." *Journal of personality and social psychology* 92(2): 191-207.
- Gartner Group (2000) "Key issues in E-government strategy and management." *Research Notes, Key Issues*, 23 may 2000.
- Gregory, Kathleen L. (1983) "Native-view paradigms: multiple culture and conflicts in organizations" *Administrative Science Quarterly* 28(3): 359-376.
- Gregory, Robert (2007). "New Public Management and the Ghost of Max Weber; exorcized or still haunting" in Tom Christensen & Per Lægreid (eds.), *Transcending New Public Management*. Aldershot: Ashgate Publishing Ltd.
- Hargie, Owen & Tourish, Dennis (2000), *Auditing organizational communication*. London: Routledge.
- Hargie, Owen, Tourish, Dennis & Wilson, Noel (2002) "Communication audits and the effects of increased information: a follow-up study." *Journal of business communication* 39(4): 414-436.
- Harris, Stanley G. & Mossholder, Kevin W. (1996) "The affective implications of perceived congruence with culture dimensions during organizational transformation." *Journal of management* 22(4): 527-547.
- Hartkamp, Martine D., Ter Hoeven, Claartje, & Pieterse, Willem J. (2008, May) "Resolving Resistance: The role of Commitment to Change in Public Organizations." Paper presented at the 58th Annual Conference of the International Communication Association: Communicating for Social Impact, Montreal, Canada.

- Herscovitch, Lynne & Meyer, John P. (2002) "Commitment to organizational change: extension of a three-component model." *Journal of applied psychology* 87(3): 474-487.
- Hiemstra & De Vries, Overeem, Gerco, De Voogd, Ewoud, & Minderhoud, Martijn (2007), *Gemeente heeft Antwoord*<sup>®</sup>. *Het klantcontactcentrum van gemeenten als frontoffice voor de gehele overheid*. Deventer: Frederik Helfrich bno.
- Hofstede, Geert (1998) "Identifying organizational subcultures: an empirical approach" *Journal of management studies* 35(1): 1-12.
- Hogg, Michael A. & Abrams, Dominic (1993), *Group motivation: social psychological perspectives*. New York: Harvester Wheatsheaf.
- Hood, Christopher, (1991) "A public management for all seasons?" *Public Administration* 69(1): 3-19.
- Hood, Christopher (1995) "The "New Public Management" in the 1980s: variations on a theme", *Accounting organizations and society* 20(2-3): 93-109.
- Hood, Christopher & Peters, Guy (2004) "The middle aging of new public management", *Journal of public administration research and theory* 14(3): 267-282.
- Howard, Larry W. (1998) "Validating the competing values model as a representation of organizational cultures." *The international journal of organizational analysis* 6(3): 231-250.
- Kalliath, Thomas J., Bluedorn, Allen C. & Gillespie, David F. (1999) "A confirmatory analysis of the competing values instrument." *Educational and psychological measurement* 59(1): 143-158.
- Korunka, Christian, Scharitzer, Dieter, Carayon, Pascale, Hoonakker, Peter, Sonnek, Angelika & Sainfort, Francois, (2005) "Customer orientation among employees in public administration: a transnational, longitudinal study." *Applied ergonomics* 38(3): 307-315.
- Kossowska, Malgorzata & Van Hiel, Alain (2003) "The relationship between need for closure and conservative beliefs in western and eastern Europe" *Political psychology* 24(3): 501-518.
- Kotter, John P. (1995) "Leading change: why transformation efforts fail" *Harvard Business Review* 73(2): 59-76.
- Kramer, Michael W. (1999) "Motivation to reduce uncertainty: a reconceptualization of uncertainty reduction theory." *Management communication quarterly* 13(2): 305-316.

- Kruglanski, Arie W. & Webster, Donna M. (1991) "Group members' reactions to opinion deviates and conformists at varying degrees of proximity to decision deadline and of environmental noise." *Journal of personality and social psychology* 61(2): 212-225.
- Kruglanski, Arie W., Pierro, Antonio, Higgins, E. Tory & Capozza, Dora (2007) "'On the move' or 'staying put': locomotion, need for closure, and reactions to organizational change." *Journal of applied social psychology* 37(6): 1305-1340.
- Laking, Rob & Norman, Richard (2007) "Imitation and inspiration in public sector reform: lessons from Commonwealth experiences" *International review of administrative sciences* 73(4): 517-530.
- Lamond, David (2003) "The value of Quinn's competing values model in an Australian context." *Journal of managerial psychology* 18(1): 46-59.
- Lane, Jan-Erik (2000), *New public management*. London: Routledge.
- Lipsky, Michael (1980), *Street-level bureaucracy: dilemmas of the individual in public services*. New York: Russell Sage Foundation.
- Marcoulides, George A. & Heck, Ronald H. (1993) "Organizational culture and performance: proposing and testing a model" *Organization science* 4(2): 209-225.
- Martin, Joanne, (2002) *Organizational culture: mapping the terrain*. Thousand Oaks, CA: Sage Publications.
- Martin, Joanne & Frost, Peter J. (1996) "The organizational culture war games: a struggle for intellectual dominance." in Clegg, S.R., Hardy, C. & Nord, W.R. (eds.), *Handbook of organization studies*. London: Sage Publications.
- Meyer, John P. & Allen, Natalie J. (1991) "A three-component conceptualization of organizational commitment." *Human resource management review* 1(1); 61-89.
- Meyer, John P., Stanley, David J., Herscovitch, Lynne & Topolnytsky, Laryssa (2002) "Affective, continuance, and normative commitment to the organization: a meta-analysis of antecedents, correlates, and consequences." *Journal of vocational behavior* 61(1): 20-52.
- Miller, Katherine (2006), *Organizational communication: approaches and processes* (4<sup>th</sup> ed.). Belmont, CA: Thomson Wadsworth.

- Moon, M. Jae, (2002) "The evolution of e-government among municipalities: rhetoric or reality?" *Public Administration Review* 62(4): 424-433.
- O'Driscoll, Michael P. & Beehr, Terry A. (1994) "Supervisor behaviors, role stressors and uncertainty as predictors of personal outcomes of subordinates." *Journal of organizational behavior* 15(2): 141-155.
- Osborne, David & Gaebler, Ted (1992), *Reinventing government: how the entrepreneurial spirit is transforming the public sector*. Reading, MA: Addison Wesley.
- Ouchi, William G. & Wilkins, Alan L. (1985) "Organizational culture" *American review of sociology* 11(1): 457-483.
- Parker, Rachel & Bradley, Lisa (2000) "Organizational culture in the public sector: evidence from six organizations." *International journal of public sector management* 13(2): 125-141.
- Pieterse, Willem J., Teerling, Marije, Klievink, Bram, Lankhorst, Marc, Janssen, Marijn & Boekhoudt, Piet (2007) "Multichannel Management. De stand van zaken.", Enschede: Telematica Instituut.
- Pillay, Soma (2008) "A cultural ecology of New Public Management." *International review of administrative sciences* 74(3): 373-394.
- Pollitt, Christopher & Bouckaert, Geert (2004), *Public management reform: a comparative analysis*. Oxford: Oxford University Press
- Quinn, Robert E. & Rohrbaugh, John (1983) "A spatial model of effectiveness criteria: towards a competing values approach to organizational analysis." *Management science* 29(3): 363-377.
- Quinn, Robert E. & Spreitzer, Gretchen M., (1991) "The psychometrics of the competing values culture instrument and an analysis of the impact of organizational culture on quality of life." *Research in organizational change and development* 5(2): 115-142.
- Rafferty, Alannah E. & Griffin, Mark A. (2006) "Perceptions of organizational change: a stress and coping perspective." *Journal of applied psychology* 91(5): 1154-1162.
- Salancik, Gerald R. & Pfeffer, Jeffrey (1978) "A social information processing approach to job attitudes and task design." *Administrative science quarterly* 23(2): 224-253.
- Schachter, Stanley (1959), *The psychology of affiliation*. Stanford, CA: Stanford University Press.

- Schweiger, David M. & Denisi, Angelo S. (1991) "Communication with employees following a merger: a longitudinal field experiment." *Academy of management journal* 34(1): 110-135.
- Shah, James Y., Kruglanski, Arie W. & Thompson, Erik P. (1998) "Membership has its (epistemic) rewards: need for closure effects on in-group bias." *Journal of personality and social psychology* 75(2): 383-393.
- Solinger, Omar N., Van Olffen, Woody & Roe, Robert A. (2008) "Beyond the three-component model of organizational commitment" *Journal of applied psychology* 93(1): 70-83.
- Steehouder, Michael, (1994) "The quality of access: helping users find information in documentation." in Michaël Steehouder, Carel Jansen, Pieter van der Voort & Ron Verheijen (eds.), *Quality of technical documentation*. Amsterdam, Atlanta, GA: Editions Rodopi.
- Webster, Donna M. & Kruglanski, Arie W. (1994) "Individual differences in need for cognitive closure." *Journal of personality and social psychology* 67(6): 1049-1062.
- Weick, Karl E. & Quinn, Robert E. (1999) "Organizational change and development" *Annual review of psychology* 50(1): 361-386.
- Welp, Yanina, Urgell, Ferran & Aibar, Eduard (2007) "From bureaucratic administration to network administration? An empirical study on e-government focus on Catalonia." *Public organization review* 7(4): 299-316.
- Zammuto, Raymond F., Gifford, Blair & Goodman, Eric A. (2000) "Managerial ideologies, organizational culture and the outcomes of innovation." in: Ashkanasy, N., Wilderom, C. & Peterson, M. (eds), *The handbook of organizational culture and climate*. London: Sage.
- Zammuto, Raymond F. & Krakower, Jack Y. (1991) "Quantitative and qualitative studies of organizational culture." *Research in organizational change and development* 5: 83-114.



## Figures

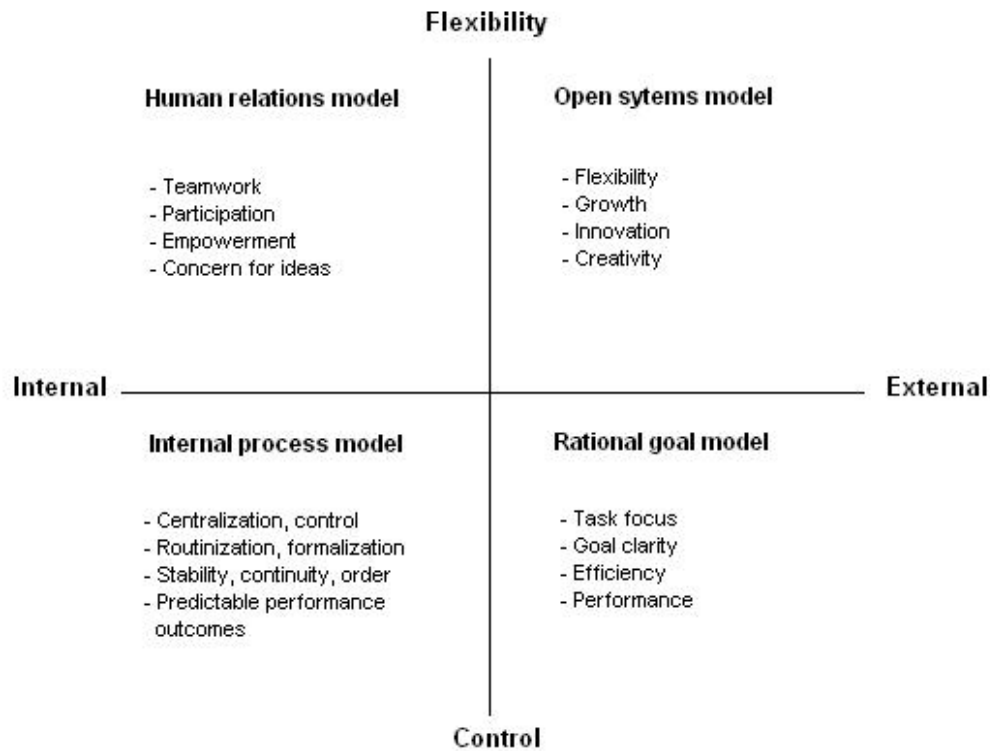


Figure 1 The Competing Values Framework (adapted from "A spatial model of effectiveness criteria: towards a competing values approach to organizational analysis" (Quinn & Rohrbaugh, 1983).

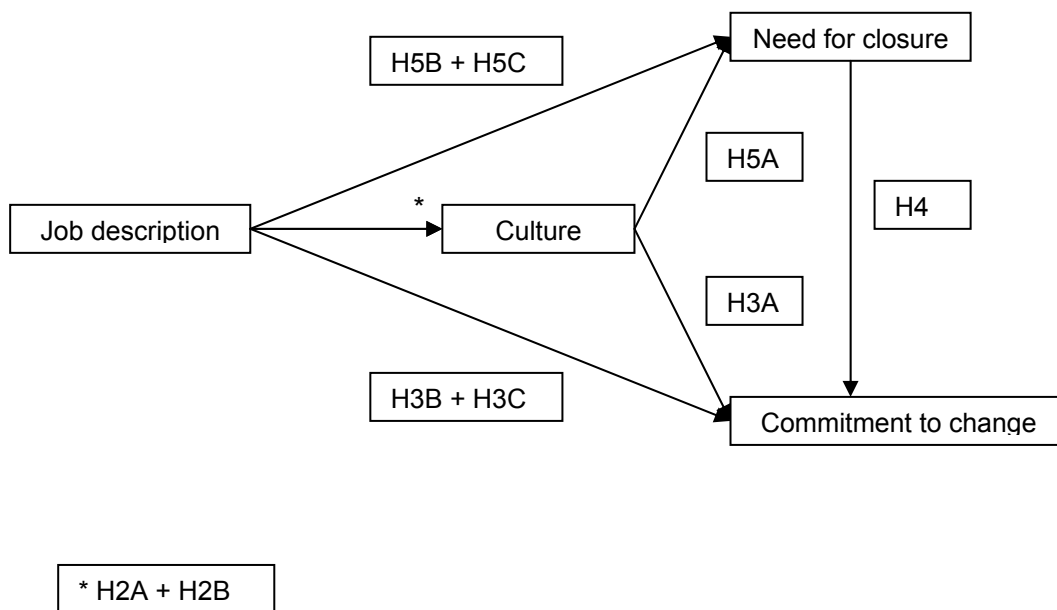


Figure 2: a graphic representation of the hypothesized relationships between job description, organizational culture, need for closure and commitment to change that were tested in this study

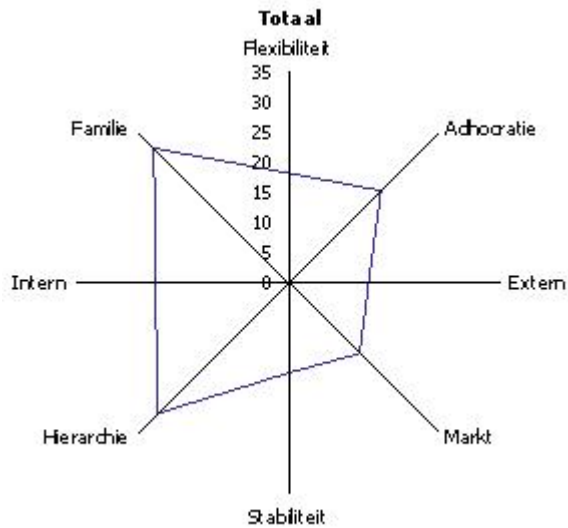


Figure 3: CVF for employees in internally focused departments

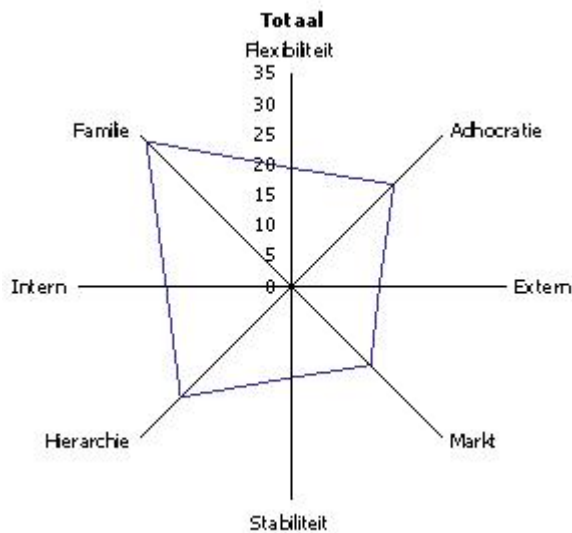


Figure 4: CVF for employees in externally focused departments

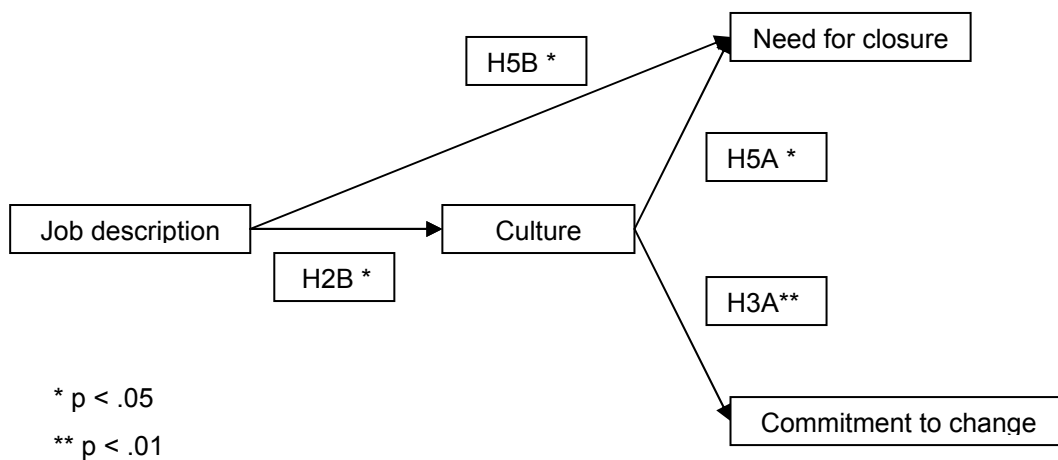


Figure 5: a graphic representation of the relationships between job description, organizational culture, need for closure and commitment to change that were confirmed in this study