ORGANIZATIONAL CITIZENSHIP BEHAVIORS AMONG PUBLIC EMPLOYEES IN
GUADALAJARA METROPOLITAN AREA, MEXICO

Filadelfo León Cázares

Dissertation Prepared for the Degree of
DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS
December 2011

APPROVED:
Simon A. Andrew, Major Professor
Abraham D. Benavides, Committee Member
Robert L. Bland, Committee Member and Chair
of the Department of Public Administration
Thomas Evenson, Dean of College of Public Affairs and Community Service
James D. Meernik, Acting Dean of the Toulouse Graduate School
This study develops a theoretical framework to examine the major dimensions of transformational leadership style (TLS), public service motivation (PSM), organizational citizenship behavior (OCB), and public organization performance (POP). It is hypothesized that when employees perceived a public organization is practicing a transformational leadership style, they are likely to have a favorable view on the performance of their organization, but the effect is indirect and mediated by OCB. At the same time, if employees have a strong desire to serve and improve the welfare of others, they are likely to perform beyond their job requirements and thus, likely to express a positive view on the organizational performance.

A structural equation modeling was used to examine 1,016 public employees (67.7% response rate) in the Guadalajara metropolitan area, Mexico i.e., concerning their perceptions about leadership style, motivation to serve in the public sector, citizenship behaviors, and public organizational performance. The results suggest that if Mexican public employees perceived their leaders to adopt a transformational leadership style, they were likely to have a favorable view on the performance of their organization (direct effect); and that, the effect is mediated by their tendency to engage in activities that would contribute to the functioning of the organization without expecting any kinds of reward (indirect effect). In addition, if employees have a strong motivation to serve in the public sector, they are also likely to have a favorable view on the performance of the organization; and that, the positive effect is mediated by their tendency to act for the goodness of other employees and organizations without
expecting some form of reward (indirect effect). A multi-group analysis, based on the hypothesized model, revealed the associations varied across three groups: difference between male and female, places of employment within the public sector (i.e., local or state government), and job descriptions or major tasks performed by employees in an organization (i.e., services oriented or administrative role).
Copyright 2011

by

Filadelfo León Cázares
# CONTENTS

| LIST OF TABLES | ........................................................................................................... | vii |
| LIST OF FIGURES | ........................................................................................................... | viii |
| CHAPTER 1 INTRODUCTION | ............................................................................................................... | 1 |
| Behaviors and Perceptions of Employees | ........................................................................................................... | 4 |
| Research Questions | ........................................................................................................... | 8 |
| Main Hypotheses | ........................................................................................................... | 9 |
| Direct Effects | ........................................................................................................... | 10 |
| Indirect Effects | ........................................................................................................... | 12 |
| Multi-groups Analysis | ............................................................................................................... | 14 |
| Methods of Analysis | ........................................................................................................... | 16 |
| Research Site | ........................................................................................................... | 17 |
| Summary of Findings | ........................................................................................................... | 19 |
| Contributions | ........................................................................................................... | 21 |
| Study Layout | ........................................................................................................... | 23 |
| CHAPTER 2 THEORETICAL FRAMEWORK AND HYPOTHESES | ............................................................................................................... | 25 |
| Defining Organizational Citizenship Behaviors | ............................................................................................................... | 28 |
| Research Model and Hypotheses | ............................................................................................................... | 29 |
| Organizational Citizenship Behaviors and Organizational Performance | ............................................................................................................... | 29 |
| Transformational Leadership Style and Organization Performance | ............................................................................................................... | 33 |
| Public Service Motivation and Organizational Performance | ............................................................................................................... | 37 |
| Public Service Motivation and Organizational Citizenship Behaviors | ............................................................................................................... | 39 |
| Mediator Roles of Organizational Citizenship Behaviors | ............................................................................................................... | 41 |
| Individual Characteristics | ............................................................................................................... | 43 |
| Gender Differences | ............................................................................................................... | 43 |
| Variation across Occupational Tasks | ............................................................................................................... | 45 |
| Levels of Government | ............................................................................................................... | 46 |
| CHAPTER 3 RESEARCH DESIGN AND DATA COLLECTION | ............................................................................................................... | 49 |
| Selection of Guadalajara Metropolitan Area (GMA) | ............................................................................................................... | 49 |
| Political and Demographic Structure of GMA | ............................................................................................................... | 51 |
Institutional Reforms in Mexico

Understanding Perceptions and Attitudes of Public Employees in Mexico

Data Collection Procedures

Data Collection

Sample Size

Survey Instrument

Operationalization of Variables

Public Organizational Performance (POP)

Organizational Citizenship Behavior (OCB)

Public Sector Motivation (PSM)

Transformational Leadership Style (TLS)

Differences between Groups

Data Analysis

Data Preparation

Missing Data

Multivariate Normality

Exploratory Factor Analysis

Structural Equation Modeling

Confirmatory Factor Analysis

Second Order Confirmatory Factor Analysis

Structural Model

Multi-Group Analysis

CHAPTER 4  RESULTS OF ANALYTICAL PROCEDURES
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table No.</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Population of the Guadalajara Metropolitan Area</td>
<td>52</td>
</tr>
<tr>
<td>2.</td>
<td>Average Annual Population Growth Rate of GMA</td>
<td>53</td>
</tr>
<tr>
<td>3.</td>
<td>Characteristics of Survey Respondents</td>
<td>85</td>
</tr>
<tr>
<td>4.</td>
<td>Additional Information of Survey Respondents</td>
<td>86</td>
</tr>
<tr>
<td>5.</td>
<td>The Frequency Distribution of Missing Data</td>
<td>87</td>
</tr>
<tr>
<td>6.</td>
<td>Frequency Distribution of Categorical Variables after Multiple Imputations</td>
<td>89</td>
</tr>
<tr>
<td>7.</td>
<td>KMO and Bartlett's Test for Factoring</td>
<td>92</td>
</tr>
<tr>
<td>8.</td>
<td>Public Organizational Performance</td>
<td>93</td>
</tr>
<tr>
<td>9.</td>
<td>Organizational Citizenship Behavior</td>
<td>95</td>
</tr>
<tr>
<td>10.</td>
<td>Public Service Motivation</td>
<td>96</td>
</tr>
<tr>
<td>11.</td>
<td>Transformational Leadership Style</td>
<td>98</td>
</tr>
<tr>
<td>12.</td>
<td>Results Summary: Measurement Model and Factor Structure Diagnostics</td>
<td>100</td>
</tr>
<tr>
<td>13.</td>
<td>Discriminant Validity: Inter-trait Correlations and Reliabilities</td>
<td>113</td>
</tr>
<tr>
<td>14.</td>
<td>Goodness of Fit Results for Nested Groups</td>
<td>115</td>
</tr>
<tr>
<td>15.</td>
<td>Direct and Indirect Effects</td>
<td>120</td>
</tr>
<tr>
<td>16.</td>
<td>Results of Structural Equation Modeling for the Nested Groups</td>
<td>128</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>FIGURE</th>
<th>DESCRIPTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Theoretical model</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Hypothesized model</td>
<td>33</td>
</tr>
<tr>
<td>3</td>
<td>Research site: Guadalajara metropolitan area, Jalisco, Mexico</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>Description of missing values</td>
<td>87</td>
</tr>
<tr>
<td>5</td>
<td>CFA for public organizational performance</td>
<td>102</td>
</tr>
<tr>
<td>6</td>
<td>Organizational citizenship behaviors related to organization</td>
<td>103</td>
</tr>
<tr>
<td>7</td>
<td>Organizational citizenship behaviors for individuals</td>
<td>105</td>
</tr>
<tr>
<td>8</td>
<td>Overall confirmatory factor analysis (organizational citizenship behaviors)</td>
<td>106</td>
</tr>
<tr>
<td>9</td>
<td>Second order confirmatory factor analysis (organizational citizenship behavior)</td>
<td>106</td>
</tr>
<tr>
<td>10</td>
<td>CFA for commitment to the public interest</td>
<td>107</td>
</tr>
<tr>
<td>11</td>
<td>CFA for compassion</td>
<td>108</td>
</tr>
<tr>
<td>12</td>
<td>CFA for attraction to public policy making</td>
<td>108</td>
</tr>
<tr>
<td>13</td>
<td>Overall CFA of public sector motivation</td>
<td>110</td>
</tr>
<tr>
<td>14</td>
<td>Second order CFA for public service motivation</td>
<td>110</td>
</tr>
<tr>
<td>15</td>
<td>CFA for transformational leadership style</td>
<td>111</td>
</tr>
<tr>
<td>16</td>
<td>Full results of structural equation modeling</td>
<td>119</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

Scholars in the field of public management have long argued for the importance of recruiting and retaining employees displaying voluntary and spontaneous actions that contribute positively to the organizational performance (Katz, 1964; Katz & Kahn, 1966; Organ, Podsakoff, & MacKenzie, 2006; Nielsen, Hrivnak, & Shaw, 2009). Helping new coworkers learn their new responsibilities, for example, helps to shape the organizational culture, which creates an atmosphere crucial for recruiting and retaining a resourceful workforce (Frenkel & Sanders, 2007). Other scholars also argue that public employees are more likely than regular citizens to execute extra-role behaviors such as political participation, voting, making charitable contributions, and donating blood (Blais, Blake, & Dion, 1990).

However, the ability of an organization to accomplish the organizational goals depends on the willingness of employees to contribute to the efforts of the collective. According to Miller (2002) and Jas and Skelcher (2005), group or organizational performance presents a collective action problem to both the employers and employees. That is, the employees will not contribute and perform their responsibility when they can free ride on the efforts of the collective because public organizational performance is generally regarded as a public good. Employees have a strong incentive to suppress their contribution because the marginal effect to the group performance is minimal. In the public sector, where the numbers of employees are generally large, individual contribution would benefit all others in the public organizations (Houston, 2006). The monitoring costs of individual contribution are relatively high, making it impractical to check or sanction the free riders.
From a managerial perspective, it is difficult to ensure all employees will perform their official duties without an effective monitoring system. One approach is for the employer to introduce a control mechanism to align the individual employees’ preferences with the organizational goal, and thus minimize shirking. The approach is similar to Taylor’s idea of scientific management, where monetary rewards are part of the incentive system. However, hierarchical control presents a dilemma for the managers because opportunistic behaviors can also apply to “team shirking.” The dilemma becomes complicated when the employer has difficulty determining or measuring the joint outcome produced by the team (Latané, Williams, & Harkins, 1979). The employees can strategically misrepresent private information to their advantage. Moreover, as suggested by Mayo (1938) in his interpretation of the Hawthorne effect, the performance of a group has much to do with the ability of the employees to feel free and to not feel supervised or controlled by management.

A similar argument has been forwarded by Barnard (1938), who considered that cooperation in a group can inspire and transcend short-term individual self-interest and contribute to the performance of the organization. Individuals are motivated to contribute to the group efforts based on their sense of responsibility and moral obligation. Williamson and Ouchi (1982) suggest that voluntary actions (similar to informal contracts) occur through time when employees have developed a mechanism to improve the group productivity.

This dissertation makes a case that the behaviors and perceptions of employees regarding the performance of public organizations can be understood through their voluntary contributions to the functioning of their organization. Public employees may perform extra tasks or activities for the organization even though these tasks might not be required by their
organization. The behavior, as noted by Organ (1988), is discretionary. It is not formally required or stated to be obligatory by the organization, but, when taken in the aggregate, the behaviors promote the effective functioning of the organization. Known in the literature as organizational citizenship behavior (OCB), such behavior mediates the effect of subjective constructs on organizational performance such as the perceptions of employees regarding their leaders and their motivation to serve in the public sector.

The intrinsic and extrinsic motivations related to innate psychological needs are also important factors to consider in order to understand the action of public employees (Ryan & Deci, 2000; Grube & Piliavin, 2000). Public employees may have a strong desire to work for the public sector because they “respond to motives grounded primarily ... in public institutions and organizations” (Parry & Wise, 1990, p. 368). The intrinsic motivation to serve the public is consistent with the idea of the New Public Service (Denhardt & Denhardt, 2000). The value of employing individuals with strong civic virtue is that they will listen and serve the public, since they have strong convictions that the government belongs to the people. The motivation to work for the public sector signals strong emotional commitments to the welfare of others. The motivation can be translated into citizenship responsibilities important for encouraging unselfish behaviors and building interpersonal relationships among co-workers within the organization. As noted by Goodsell’s (2011) idea of “mission mystique,” much of what public administration does has to do with attitudes (e.g., beliefs and values) and behaviors (ethical

---

1 Goodsell (2011) argues that the mission mystique is the notion that an exceptional public organization radiates inside and outside due to the nature of its work, as well as to how it performs. Inside, the mystique enhances the employee commitment to reach the mission; outside, the organization has respect and admiration.

2 Goodsell (2011, p. 478) defines a belief system as “a coherent web of emotive and cognitive elements that together make possible the mystique aura.”
conduct) of employees throughout the organization.

The employees’ perceptions of management or leadership styles also are important for organizational performance because leaders and managers have a major influence on employee behaviors (Wimbush & Shepard, 1994; Wright & Pandey, 2010). Employees will do what their managers or leaders do, rather than what the policy manual specifies (Paarlberg, Perry, & Hondeghem, 2009). Miller (2002) argues that managers who can inspire their followers to go beyond their short-term self-interest, by cooperating, taking risks, and innovating, will have advantages. Burns (1978) argues that the emotional influence that the leaders have on their employees is termed transformational. This leadership style is defined as the process whereby “leaders and followers raise one another to higher levels of morality and motivation” (Organ, 1988, p. 4). Indeed, the theory of transformational leadership assumes that leadership is positively associated with organizational performance because one of the roles of the leader is to manage employees’ behaviors for organizational achievement. For example, transformational leaders can encourage employees to contribute to the organization beyond the requirements of their job description out of individual motivation, challenges, or the desire to emulate the leaders and be viewed as part of their efficacious followers (Vigoda-Gadot, 2007).

Behaviors and Perceptions of Employees

Although much has been written about the importance of citizenship behaviors within an organization (OCB), few have explored the mechanisms, explaining their impact on the performance of an organization. One of the many benefits of OCB can be found in the actions
of employees. For example, OCB varies from giving advice and emotional support, to helping other coworkers performing tasks. These actions can lead “to the maintenance and enhancement of the social and psychological context that supports task performance” (Organ, 1997, p. 91). The behaviors are often referred to as citizenship behaviors in an organization, where employees perform non-crucial extra activities (i.e., the extra activities that are considered good by the organization). He (2009), for example, argues that organizational citizenship behaviors could also be a possible solution to the free-rider problem because individual employees need not always make decisions based on a self-interested motive. That is, while opportunistic behaviors are driven by personal interest, the incentive of citizenship behaviors is to look for the common benefit through execution of altruistic activities.

However, there exists a dark side to citizenship behaviors. Banki (2010) suggests that, in the presence of self-serving motivators, OCB has a detrimental effect on group cohesion and thus the performance of a group. OCB can affect a group’s cohesiveness negatively through lack of trust and poor communication. Therefore, the notions of altruistic and selfless acts need to be examined further. To reiterate, the negative effect of OCB that occurs, resulted from individuals acting with self-serving motives. For example, peers may react negatively to coworkers who display OCB in order to impress the supervisor, because these actions may threaten other members of the group. This threat may cause those members to become defensive and avoid communication, which in turn engenders even less cooperation amongst coworkers, which may result in lower cohesion. Although individuals in a group may perform OCB, they do not necessarily contribute equally to the group, leading to a reduction in the group cohesiveness (Bommmer, Miles, & Grove, 2003).
Also, the extent to which citizenship behaviors can influence the working relations in a group and/or contribute to organizational performance is still not clear. Organ (1988), for example, suggests that OCB may have little effect on organization effectiveness if there is not an effective management system and the minimal requisite of intellectual and skilled members. Sevi (2010) argues that when employees voluntarily help members of a group who are not making a decent effort (e.g., who are withholding efforts), OCB decreases organizational effectiveness because the helpers’ activities are distractions to the group. Moreover, Nielsen, Bachrach, Sundstrom, and Halfhill (2010) also questioned the value of organization citizenship behaviors. They found that the impact is negatively correlated with performance on task-independent groups because the helping behaviors can be considered as encroaching on personal control and, consequently, decrease the members’ motivation.

Podsakoff, MacKenzie, Paine, and Bachrach (2000) also criticize the effect of OCB on organizational performance. Although OCB is generally considered to be an indicator of organizational performance and effectiveness, it is also possible that the positive performance of a unit may actually motivate citizenship behaviors. One explanation is that a departmental unit that performs well has more time, less pressure, and more satisfied employees than those that do not. The authors conclude that an organization with a high level of performance may condition its members to behave as good citizens (i.e., in helping others, sportsmanship, and not taking long breaks). The argument suggests that organizational performance can explain the presence of OCB. The relationship can be spurious; that is, groups with outstanding performance may report the use of OCB (even when the group did not perform OCBs) because outstanding performing groups tend to be those that help each other.
Other scholars also argue that OCB has a negative effect on organization performance (Podsakoff & Mackenzie, 1994; Podsakoff, Ahearne, & MacKenzie, 1997). For example, Podsakoff et al. (1997) make a case that an inexperienced employee may produce more with the help of others who are more experienced and that such assistance will increase the agency performance only if the increased productivity of the inexperienced employee is greater than the decreased productivity of the experienced employee, due to the time expended on helping. That is, the net effects of helping others will be positive only in the case of the expected benefits being greater than the expected costs. In addition, they also argue that citizenship behaviors may cause inefficiencies within an organization. For example, always helping or giving advice to other employees may lead to a culture of dependency, with the result that those being helped will not learn how to handle future problems in their jobs. In an organization with a high turnover rate, employees receiving help from others may leave the agency before the benefits provided during the course of their employment can be used for the advantage of the organization (Podsakoff & Mackenzie, 1994).

Despite these concerns, OCB is an important phenomenon to study in a workplace. Drucker (1993) argues that technical aspects of motivation and leadership must be supplemented by employees’ voluntary efforts. This behavior serves as a foundation upon which employees can take pride in their efforts, express a strong commitment to the organization, and establish reciprocity relationships. According to Hodson (2002), OCB is a central strategy for increasing organizational productivity when employees are encouraged to increase their psychological and physical efforts. The behaviors are an important component of contemporary management practices that are oriented toward voluntary compliance and
increased joint efforts, away from the rigid hierarchical rules. Organizational citizenship behaviors can also lead to an improvement in working conditions, allowing employees to express their preferences, highlighting the need for employees to routinely participate in activities at the workplace, and preserving the norm in a workplace. Additionally, this includes voluntary compliance and increased worker efforts. The employees are driven by moral obligation, close social relationships, and personalized exchanges (Westwood, Chan, & Linstead, 2004).

Research Questions

The objective of this study is to determine whether public organizational performance is associated with the antecedents of organizational citizenship behaviors. The main argument is that public employees’ perceptions of organizational performance (POP) can be explained by three important constructs: their motivation to serve the public (PSM), their views concerning their superiors’ leadership styles (TLS), and their tendency to behave as good citizens in the organization (OCB).

While the attitudes toward organizational citizenship behaviors may have a direct effect on organizational performance (Organ, 1987), it is also plausible that citizenship behaviors play a mediating role between transformational leadership styles and organizational performance. A similar argument can be made for the indirect effect of public employees with strong motivation to serve the public. For instance, the attitudes of individuals and citizenship behaviors have a mediating effect in the sense that public employees’ experiences/interactions with their leaders create an environment that can influence their opinions about the performance of the organization. Public service motivation, which is described as the
individual’s internal desire to work for the public organizations, also has an effect on employees' perceptions of organizational performance. However, the effect is mediated by the tendency of employees to behave as good citizens, which is partly explained by their strong beliefs about their civic duties as public administrators.

The following research questions guide the research.

1. To what extent do public employees’ engagements in citizenship behaviors affect their perceptions about the performance of their organization?

2. To what extent do public employees’ views of their leaders influence their perceptions about the performance of their organization?

3. To what extent does the motivation of public employees to serve the public, influence their perception of public organizational performance?

4. To what extent do public employees’ views of leadership styles indirectly affect their perceptions of public organizational performance via their behaviors as good citizens? In other words, does being good citizens in an organization mediate the effect of leadership styles on employees' perception about their organizational performance?

5. To what extent does public employees’ motivation to serve the public indirectly affect their perceptions of public organizational performance via their behaviors as good citizens?

6. To what extent do the direct and indirect effects of transformational leadership and public service motivation on public organizational performance follow the same patterns when considering the variations across multi-group characteristics: (i) gender, (ii) places of employment within the public sector, and (iii) job descriptions or major tasks performed by employees in the organization?

Main Hypotheses

While much has been written about leadership styles and the motivation of employees to serve the public (Vigoda-Gadot, 2007; Montgomery, 2011), few have examined the importance of citizenship behaviors in a public organization setting. Recently, however,
scholars have begun to examine the importance of citizenship behaviors as a factor contributing to the performance of public organizations. For example, extending the concept to an organizational level, Organ (1988, p. 4), argues that citizenship behaviors, which are discretionary actions of employees, can promote “the effective functioning of the organization.” Yen, Li, and Niehoff (2008) argue that organizational citizenship behavior (OCB) influences organizational performance positively because it provides socio-emotional support to coworkers and makes the work of others easier. Yoon and Suh (2003, p. 597) also find that “employees’ job satisfaction and trust in the manager are significantly related to OCB and that their active engagement in OCB has a positive relationship with the perception of service quality.”

Direct Effects

Organizational citizenship behaviors: The argument that citizenship behaviors have a direct effect on organizational performance is supported by the following factors. First, according to Organ (1988), when employees perform additional duties that are above and beyond what is expected of them, such behaviors have important implications for organizational effectiveness. This is because the psychological processes guiding the behaviors of the employees create a positive working environment for the individuals (Hodson, 2002). The organizational performance is enhanced through the stability of working relationships developed by the coworkers (Bolino, Turnley, & Bloodgood, 2002; Podsakoff & MacKenzie, 1994). Second, Morrison (1996) and Yoon and Suh (2003) suggest that OCB may be correlated positively with high quality customer service because the level of emphasis of OCB by human
resources management will be related to the extent to which managers motivate social exchanges, identify the organization mission, and empower the employees. Finally, Barnard (1938) and Kats (1964) argue that when an organization required employees to be cooperative and helpful to others, they contributed more to their organization than those that did not and, thus, collectively improved their organizational performance.

**Leadership styles:** The perception of employees regarding the performance of public organization can also be explained by their perception of their organization leaders. Several mechanisms explain why public employees’ favorable perception about their organization’s performance is formed by leadership styles. For example, research on organizational behavior shows that when employees perceive a leadership style based on values (i.e., one that is transformational), they will be motivated to do extra activities that are not defined in their job description (Bass & Avolio, 1993; Vigoda-Gadot, 2007). Moreover, leaders have the ability to create a conducive working environment for their subordinates by promoting positive feelings of fairness and justice and reducing feelings of inferiority due to the lack of political connections (Kacmar & Ferris, 1991).

**Public service motivation:** Organizational performance is also affected by the motivation of public employees to serve in the public sector. Perry and Wise (1990, p. 368), for example, define public service motivation (PSM) as an “individual’s predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations.” Theoretically, one can argue that PSM can be associated with organizational performance because the individuals’ motivation to serve their communities is based upon the idea of sacrifice and compassion for others (Perry & Wise, 1990; Brewer, Coleman Selden, & Facer II, 2000; Kim, 2006). However,
this theoretical mechanism remains in development because there is no strong empirical evidence for this proposition (Perry, Hondeghem, & Wise, 2010).

The underlying theoretical model for the analysis is displayed in Figure 1.

![Figure 1. The theoretical model.](image)

**Indirect Effects**

Although scholars have argued that employees’ motivation to serve the public (PSM) has an effect on organizational performance (Perry & Wise, 1990; Kim, 2005), few, if any, have made the argument that such motivation also has an indirect effect on their perception of organizational performance. The reason that public employees have a favorable perception of public organization is their strong belief in the value of public service. In the organization that they serve, this value often translates into good citizenship behaviors. Several mechanisms can
explain the indirect effect. First, scholars have argued that employees’ altruism and conscientiousness toward other employees are related to their motivation to work in the public sector (Kim, 2006). If employees have a strong motivation to serve the public, there also exists a strong likelihood that they will perform above and beyond what is expected of them (Kim, 2006). Second, scholars have also pointed out that those committed to serve in the public organization (because of its mission to help others) are more likely to engage in organizational citizenship behaviors. The non-monetary incentives are a strong motivator for employees to contribute to the improvement of the public sector performance (Rainey, 1982). Moreover, they also exhibit relatively high levels of compassion, interest in local community affairs, and expectations to sacrifice their own personal benefits for the wellbeing of others (Vandenabeele, Scheepers, & Hondeghem, 2006), thus contributing to the performance of the organization. I hypothesize that the effect of public service motivation on the perception of public employees regarding their organizational performance is mediated by the citizenship behaviors of public employees.

Employees’ perceptions of their organization’s performance can be indirectly attributed to the effect of employees' perception about their leaders. Leadership styles have an effect on employees’ perceptions about organizational performance, but the effect is mediated by the likelihood of the employees’ themselves being good citizens in their organization. In other words, the citizenship behavior of employees (OCB) can mediate the effect of employees' perceptions about their leaders on their perceptions about their organizational performance. The indirect effect can be explained in the following way: employees will exhibit altruistic behaviors if the environments are conducive to do so (Vigoda-Gadot, 2007), suggesting that
leadership styles might affect the willingness of an individual employee to voluntarily contribute to the functioning of an organization.

It has been generally argued that leaders can shape the environment in a workplace (Vigoda-Gadot, 2007). Under certain leadership styles, it is possible to encourage employees to behave consistently with civic virtue, which suggests the importance of leadership that strives to inspire others to achieve “higher levels of morality and motivation” (Burns, 1978, p. 20). In this sense, leadership styles can indirectly affect employees' perceptions about the effectiveness of their organization, e.g., through the creation of conducive working environments. I hypothesize that public employees' views of leadership transformational styles have an effect on organizational performance through the citizenship behaviors of the employees.

Multi-groups Analysis

One can also use this framework to analyze data of nested groups: (1) gender, (2) places of employment within the public sector, and (3) job descriptions or major tasks performed by employees in an organization. The nested groups help to give a better understanding of the associations between the extra-role behaviors and organizational performance. The analysis provides clues to the effect of OCB on performance across different environments, especially the indirect effects of transformational leadership and the motivations of public employees to work in the public sector. For example, the literature provides mixed results studying OCB and performance through the lens of gender. Lovell et al. (1999) find that females are more likely to become involved in OCB than males, particularly in regards to altruistic behaviors as a result
of societal gender roles (e.g., they are more helpful, courteous, and kind). While Okediji, Sanni, & Unnoh (2009) did not find a significant difference between males and females in their engagement in citizenship behaviors, Miao and Kim (2009) find a stronger relationship between OCB and job satisfaction for males than for females. This is because males are more willing to change the status quo by making constructive suggestions motivating OCB.

In addition, there exist differences of perceptions among employees who work in the service area and those at the administrative or managerial levels. For instance, previous studies on skilled and semi-skilled workers show that skilled employees are more likely to engage in OCB than the semi-skilled employees (Moore & Love, 2005). Moreover, Bright (2005) argues that employees with higher positions in the public sector are more likely to engage in altruistic behaviors than employees in lower positions because those who work at an administrative level have a broader view of the operation of the government and a better assessment of the difficulties of allocating resources. Meanwhile, those working in service areas have more direct contact with the public they serve and less time to develop or perform altruistic behaviors. One possible reason is that service employees usually engage in routine and monotonous activities that may not allow them to help other co-workers often. For example, in the process of obtaining a driver’s license, one employee receives the application, another conducts the vision tests, another the knowledge test, another the driving test, and so forth until the license is finally in the citizen’s hands.

Attitudinal differences about citizenship behaviors between employees working for the local and state governments may also exist. For example, Schede (2011) suggests that employees who work for local governments are more likely to engage in pro-social behaviors...
(e.g., volunteering and making charitable contributions) than those working for a higher level of government. This is because social connections and familiarity with their local communities (McAdam & Paulsen, 1993) provide a strong motivation for local government employees to do good for their local communities.

Methods of Analysis

A structural equation modeling (SEM) with maximum likelihood estimation (MLE) was used to test and measure the theoretical framework given the latent variables. The method of analysis consists of two parts: the measurement model (i.e., factor loadings, error variances and covariances, factor variances and covariances) and the structural model (i.e., the relationship among latent variables, for example, direct or indirect effects). To derive the measurement model, exploratory factor analysis and confirmatory factor analysis were performed. The structural model was then used to determine whether the model fit well with the observed data. This method is also appropriate when conducting multi-groups analysis (Vieira, 2011; Gefen, Straub, & Boudreau, 2000), allowing researchers to examine the direct and indirect effects simultaneously. Moreover, the analysis provides a mechanism to take explicitly into account the measurement errors in both the independent and dependent observed variables, which are crucial when making parameter estimates consisting of multiple items. The analysis minimizes the measurement errors produced by the independent variables, which may cause wrong conclusions (Raykov & Marcoulides, 2006).

In the measurement model, the operationalization of the latent variables (or constructs) was based upon scale measurements developed by scholars in the field. The model developed the latent constructs for public organizational performance (POP), organizational citizenship
behaviors (OCBs), transformational leadership style (TLS), and public service motivation (PSM).
The advantage of using previously validated scales is that the latent constructs are measured
with a higher level of certainty. The operationalization of POP, for example, was based on the
Lusthaus et al. (2002) and Vigoda (2000) approaches that measure the concept of effectiveness
and responsiveness of public organizations respectively. The latent construct for OCB was
measured using the scale developed by Lee and Allen (2002), while the PSM construct was
based on the recommendations made by Coursey and Pandey (2007). The transformational
leadership style was measured by using the multifactor leadership questionnaire (MLQ)
developed by Bass and Avolio (1993). All of these constructs have a relatively high reliability
score, i.e., Cronbach’s alpha value above .60.

Research Site

The research was conducted in the Guadalajara metropolitan area (GMA). The GMA is
located in the state of Jalisco, which is in the western-pacific region of Mexico. There are
several reasons GMA is an ideal place to test the general proposition that the attitudes of public
employees toward organizational citizenship behaviors have an effect on the organizational
performance. The metropolitan area is the center for state and local government
administration as well as economic activities because of its population and its economic
development. The metropolitan area has also witnessed several political reforms carried out by
the federal government, such as the introduction of the Civil Service System in 2003 (Olivos-
Campos, 2003), the General Program of Administrative Simplification (1989-1994), the National
Agreement to Increase Productivity and Quality (1992), the National Program to Modernize the
Public Company (1990-1994), and the Program for Modernization of the Public Administration
Despite the introduction and implementation of the administrative reforms, bureaucratic problems still persist. For example, scholars pointed out that the existence of traditional administrative systems (i.e., red-tape and inefficient distribution of the scarce resources location) is one of the main problems associated with the barriers to reform (Grindle, 2007). Other obstacles to reform include the obsolete local systems responsible for public services (i.e., lack of responsiveness and quality of the services), poor professionalization of public employees (i.e., lack of experience and excessive employment-mobility), and the lack of urban planning and economic development (i.e., in the medium and long term) (Cabrero, 2005). Another barrier to institutional reform in Mexico includes the inherent political system, in which over a period of 75 years (Grindle, 2007), a hegemonic political party (PRI\(^3\)) controlled all the administrative processes at all levels of government (federal, state, and municipal). The reforms were also difficult to implement because of the lack of information about public jobs and tasks within the public administration. The number of unions among public employees also created a barrier to achieving systematic reform.

Additionally, the study of public employees’ attitudes and perceptions becomes important when testing theories which originated in developed countries and are applied to organizational settings in a developing world (Organ et al., 2006; Hofstede, 1980). The different organizational cultures across international boundaries may lead to different conclusions concerning the behaviors of employees and thus the managerial techniques best fitted to

---

\(^3\) PRI stands for Partido Revolucionario Institucional. During the hegemonic control of PRI, in most of the cases, jobs within the public administration were given based on the employees’ loyalty to the party rather than the employees’ capacity to perform the assigned tasks.
improving organizational performance. Tierney et al. (2002), for instance, note that the extra-role behaviors of Mexican employees depend on their pre-existing relationships with their supervisors, suggesting an employment culture characterized by the employees’ sense of loyalty to their managers is an important consideration in understanding the attitudes and behaviors of employees. In a comparative study conducted by Fisher et al. (2010) in Mexico and China, citizenship behaviors of employees were found to be associated with the global business’ financial outcomes (percentage of profit) rather than customer satisfaction. The study demonstrates that, in the private sector, a movement exists to understand the extra-role behaviors of employees motivated by profits (i.e., private sector issues). According to Grindle (1997), the Mexican public employees are characterized by their active participation in society. They also have a traditional view about the role of government when it comes to the implementation of public policies. If the private and public management are somewhat alike (Rainey and Bozeman, 2000), studying citizenship behaviors within the public sector is helpful in order to enhance the public organizational performance.

Summary of Findings

The data were collected among public employees working in the public sector within the Guadalajara metropolitan area at the Federal, state, and local levels. A total of 1,016 public employees returned their respective questionnaires. The responders were 52.8% males and 45.6% females; the remaining 1.7% declined to complete the gender item. The average age was 36 years old with standard deviation of 10.1 years. That is, the majority were between 26 and 46 years old. About 60% had a bachelor degree. Also, the respondents had around 10 years’ experience working for the public sector, and most of them (i.e., 49.5 percent) were
working within the service area.

Among the 1,016 public employees in GMA, I found that transformational leadership style had an effect on the perceptions of employees regarding the performance of their organization, but the effect is indirect and mediated by the employees’ engagement in citizenship behaviors. The result suggests, in the context of public employees in Mexico, that leaders can provide opportunities for employees to help others by creating an environment that encourages citizenship behaviors. The result is consistent with the argument presented by Podsakof et al. (2000), i.e., transformational leadership style is related to the ability of leaders to motivate employees to perform above and beyond their work expectations (see also Vigoda-Gadot, 2007). The efforts of employees---once translated into citizenship behaviors---improve the perceptions of employees regarding the performance of their organization.

In addition, evidence suggests that the level of public service motivation is associated with respondents’ perceptions of organizational performance, but the association is indirect because of the mediator role in employee engagement in citizenship behaviors. In other words, employees with strong motivation to serve others will perceive that their organization is effective and responsive to the public. This is because employees are more likely to perform extra activities such as those described in OCB in order to satisfy their internal desires to serve their communities. However, there is no evidence to suggest a direct association between the individual levels of public service motivation and their perceptions of public organizational performance.

When a multi-group analysis was performed, females rather than males were more likely to engage in citizenship behaviors. The results suggest that females are strongly
influenced by the transformational leadership style and have higher levels of public service motivation compared to males. Under the same argument, employees who have higher positions within their organization (e.g., administrators or managers) and employees who work for local governments are more likely to develop citizenship behaviors. Possible reasons for these findings can be attributed to gender stereotyping or gender bias in the workplace. For example, females tend to adopt caretaking behaviors because of socially constructed roles (Lovell, et al., 1999), whereas males tend to adopt competitive, aggressive, and dominant roles (Bright, 2005). Scholars also suggest that gender roles in an organization are linked to job appraisal, which generally undervalues the informal contribution of female employees (Heilman, 2001).

As for the difference between administrators or managers and employees working in the service area, scholars have argued that managerial positions tend to be rewarded more by the organization (Bebchuk & Fried, 2009), suggesting a strong incentive to engage in OCB. Moreover, managerial positions provide opportunities for employees to have an overall view of organizational operation, highlighting the variation across professional levels (Moore & Love, 2005). They also tend to have a better understanding of the difficulties in allocating resources. Finally, local government employees are more likely to perform beyond their job description because they are familiar with local concerns and closely connected with their local communities, in contrast with public employees working for the state government (Schede, 2011).

Contributions

The research contributes to the literature in the following ways: first, several calls have
been made to study OCB in a different context than the one in the U.S (Kim, 2006; Pandey et al., 2008). Most studies related to OCB and organizational performance have generally been conducted in the developed countries (Organ et al., 2006; Pandey et al. 2008; Kim, 2006). The study in Mexico highlights different organizational settings, that is, one that is based on collaborative working relationships in a collectivist society (i.e., a society maintaining familial-like relationships), rather than an individualist society (Hofstede, 1980). Moreover, very few studies have examined the concept of citizenship behaviors among public employees (i.e., behaviors in which they voluntarily perform tasks or duties that are neither required nor rewarded but are of benefit for the organization). While scholars in the private sector have begun to pay attention to the relationship between citizenship behaviors of employees (Bateman & Organ, 1983; Organ1988; 1997) and organizational performance (Yen, Li, & Niehoff, 2008; Morrison, 1996; Yoon and Suh, 2003), there is a very little literature being produced in the context of public organizations.

Second, the theoretical framework developed in this research is important because it illustrates the influence or effects of various dimensions on the perceptions of employees regarding their organizational performance. These effects highlight the importance of transformational leadership and the levels of public service motivation to enhance the organizational performance by doing extra tasks that are neither rewarded nor prescribed as being among their main activities. Because the organizational activities are performed voluntarily, the spontaneous extra activities contribute to the functioning of the organization. In addition, the study also integrates transformational leadership style and public service motivation as antecedents for citizenship behaviors in order to explain public employees’
perceptions regarding the performance of their organization. Currently, very few, if any, empirical studies have been conducted in the developing countries, particularly on the mediating effects of citizenship behaviors of public employees between transformational leadership styles, the motivation of public employees to serve the public, and the performance of public organizations.

Third, public management scholars have suggested that citizenship behaviors might have a positive impact on organizational performance, but few have extended the argument by including the mediating effects of leadership styles and public service motivation. It is theoretically possible that citizenship behaviors are influenced by employees' perceptions regarding their supervisor’s leadership styles (e.g., the transformational style of leadership) as well as their motivation to serve in a public organization. The importance of indirect or mediating effects of citizenship behaviors should not be understated in the field of public management. This factor influences much of public employees' perception regarding the performance of their organization.

Study Layout

The next chapter provides the theoretical framework used to ascertain the perceptions of employees regarding the performance of their organization. The four major constructs are transformational leadership, organizational citizenship behaviors, public service motivation, and public organizational performance. Research hypotheses are presented along with the inclusion of the multi-group analysis.

In Chapter 3, the research design and data collection are discussed. The political and economic characteristics of the Guadalajara metropolitan area are described. The procedures
for data collection such as sample size and techniques used to collect the data among public employees in GMA are discussed. The operationalization of the main constructs is also discussed. The constructs were based on previous scales developed by other scholars in the field. The structural equation modeling used to analyze the data is also presented.

Chapter 4 reports the result of the analytical procedures, which includes the multiple imputation technique for missing values, descriptive statistics, and exploratory and confirmatory factor analysis. The chapter describes the dataset and presents in detail the multiple imputation procedures used to solve missing data. Additionally, the chapter presents the exploratory factor analysis and the confirmatory factor analysis. A discussion on the multi-group analysis is also presented.

Chapter 5 reports results from the structural equation model analysis for the aggregate data as well as for the multi-group analysis. The main hypotheses are tested in chapter 5 using the structural equation modeling. The hypothesized model was also tested across different nested groups.

Chapter 6 presents the conclusions, discussions, and opportunity for future research in the area of citizenship behaviors.
CHAPTER 2

THEORETICAL FRAMEWORK AND HYPOTHESES

The general perception in many developing countries is that public organizations are, overall, performing poorly. In some cases, the public organizations barely function at all (Grindle, 1997). This negative view of government is reinforced by the argument that bureaucrats are seldom concerned with the wellbeing of the citizens, and desire to get through their day with a minimum amount of work. In this context, Goodsell (2004, p. 4) argues that the majority of bureaucracies are characterized by “inordinate delays, long lines, undependable service, officious indifference, immense waste, and routine bribery.” Meyer and Zucker (1989, p. 22) make a similar argument highlighting that public organizations generally perform poorly because of diverse interests, which “arise in and around the organization.” As Max and Bacal (2011) argue, employees with low levels of motivation are likely to be influenced by their job environment, causing them to perform poorly in their work place. In addition to the workplace environment, employees’ poor performance can be attributed to their personal characteristics such as the levels of technical skill, training, and employees’ perception of their leaders (Miller, 2002, p. 3).

Although the term “organizational performance” is widely used by scholars and practitioners in the field of public management, pinpointing its exact meaning is difficult⁴ (Dubnick 2005, Lusthaus et al. 2002). For example, there are objective and subjective

---

⁴ According to Dubnick (2005, p. 391) the term “performance” is based on the context in which an action is performed. The action is a guided behavior motivated by “some intent or purpose.” The broad meanings of performance can be helpful in some cases but not in others. For example, the “critiques of government performance feed on the very looseness of meaning that makes the task of managing government performance so frustrating” (Dubnick, 2005, p. 391).
considerations which must be taken into account when the performance of public organizations is assessed. According to Brown and Coulter (1983), within the public organization context, objective measures are related to indicators of effectiveness, efficiency, and equity of policy inputs/outputs and impacts. On the other hand, the subjective elements or measures of organizational performance are related to citizens’ attitudes about service delivery. Often assessed through research surveys, subjective measures are carried out by taking into account constituents’ perceptions (Schneider, Ashforth, Higgs, & Carr, 1996) and satisfaction with the implementation of public organization activities (Vigoda, 2000). Such assessment involves evaluating the quality and quantity of certain public services (Lusthaus, Adrien, Anderson, Carden, & Montalvan, 2002).

There are advantages in assessing organizational performance using subjective measures. Schneider et al. (1996) find that the self-reporting on the performance of organizations is associated with third party assessments (e.g., those expressed by the customers). The technique allows researchers to capture how employees assess the extent to which the organization focuses on its internal organizational practices affecting its organizational performance (Pugh et al., 2002). Because there is a strong correlation between objective and subjective measures (Dess & Robinson, 1984; Dawes, 1999), the subjective measures are an acceptable method to capture the concepts under consideration (Menozzi, 2005).

Moreover, based on previous research, public organizational performance is regarded as the performance of employees and the organization in delivering public services. The concept also reflects organizational responsiveness (i.e., toward the fulfillment of its mission, efforts to
support local residents, and, responses to public requests and public criticisms well as
suggestions for improvement) (Vigoda, 2000; Lusthaus et al., 2002). Consistent with the
literature on public interest, the term organizational performance is understood as the
employees’ perceptions about the organization, its ability to meet the overall goal of public
interests. Vigoda (2000) for example, assesses organizational performance based on the
perception of citizens in terms of the speed and accuracy in service deliveries, which correlates
with service satisfaction and operation satisfaction. Other scholars argue that organizational
performance is also affected by both policy and cultural dimensions (e.g., entrepreneurship,
ethics, and organizational politics) and by the human resources management of public
employees (e.g., quality of leadership and management, and quality of employees) (Becker &
Gerhart, 1996; Pitts, 2009; Brewer, 2009).

What explains public organizational performance? One way to answer the question is to
examine factors affecting the extent to which individuals will voluntarily contribute to the
efforts of the collective. I argue that public organizational performance can be explained
directly and indirectly by three latent constructs: (1) organizational citizenship behavior (OCB),
(2) the motivation of employees to serve in the public sector (PSM), and (3) the importance of
transformational leadership styles (TLS). The direct and indirect effects of these constructs on
the perceptions of employees regarding the performance of their organization are also
discussed. The final section examines the arguments that suggest there are variations across
three groups: (1) gender, (2) places of employment within the public sector, and (3) job
descriptions or major tasks performed by employees in an organization.
Defining Organizational Citizenship Behaviors

Citizenship behaviors are often referred to as extra-role behaviors, pro-social organizational behaviors, and contextual performance, among other terms (Podsakoff et al. 2000). The practical importance of organizational citizenship behaviors (OCB) for public organizations is that the behaviors of employees can enhance the effectiveness of the organization through resource transformation, innovation, and adaptation (Organ 1988). For instance, Katz (1964) and Katz and Khan (1966) identified three main types of employee behaviors that are related to organizational effectiveness: (1) individuals must be motivated to enter and remain within the organization, (2) they must execute their roles’ requirements, and (3) they must participate in spontaneous and innovative activities that are beyond their roles. The extra activities are referred to by Smith, Organ, and Near (1983) as Organizational Citizenship Behavior (OCB). These behaviors have been defined as spontaneous and voluntary actions often not mentioned in the job description but, in aggregate, enhance organization performance. Public employees are also not expected to receive tangible rewards from the organization, even if performing extra activities.

In the conception of OCB, the behavior of employees in an organization can also be regarded as “good citizenship” or “being a good soldier” in the sense that employees may perform extra tasks for the organization even though these tasks might not be required by their organization or specified in their job prescriptions. The behavioral aspects of the employees, as noted by Organ (1988, p. 4), are based on the notion of “discretionary [activity], not directly or explicitly recognized by the formal reward system and that … promotes the effective functioning of the organization,” that is, the “contributions to the maintenance and
enhancement of the social and psychological context that support task performance” (Organ, 1997, p. 91). For the most part, the behaviors are difficult to specify through job descriptions because of the informal nature of the interactions established by employees.

The behavior of employees displayed by being a good citizen is explained by the observation that they voluntarily act for the goodness of the whole organization. The nature of the behavior, though difficult to pin down, is essentially not a requirement of the role or job description; the behaviors are seldom specified in the employees’ employment contract. Moreover, the behavior is based on personal choices of the employees, which include helping other coworkers and speaking well of the organization when it is criticized by others outside or inside of the organization.

Research Model and Hypotheses

Organizational Citizenship Behaviors and Organizational Performance

The conceptual underpinning of organizational citizenship behavior and the extent to which it can improve organizational performance can be explained in the following ways: first, according to the work conducted by Yen, Li, and Niehoff (2008), organizational citizenship behavior (OCB) influences organization performance positively because it provides socio-emotional support to other coworkers and makes the work of others easier. The assumption is that “employees contribute to organizational effectiveness by building socio-emotional support in the organization and facilitating more efficient work behavior” (p. 396).

Second, Morrison (1996) and Yoon and Suh (2003) argue that OCB has a positive impact on high quality customer services because “human resources management practices will lead to higher levels of OCB to the extent that they create social exchange relationships,
identification with organizational objectives, and the empowerment to exceed formal job requirements” (p. 508). Yoon and Suh (2003, p. 597) also find that “employees’ job satisfaction and trust in management are significantly related to OCB and that their active engagement in OCB has a positive relationship with the perception of service quality.”

Third, according to Barnard (1938) and Katz (1964), when an organization seeks employees that are cooperative and helpful, they tend to contribute more to their organization than those who are not “cooperative and helpful” and, thus, collectively enhance their organizational performance. The notion of cooperation in OCB is that “the accomplishment of organizational goals depends on the willingness of persons to contribute” to the efforts of the collective (Barnard, 1938, p. 83). According to Katz (1964), for a successful organization system to exist, employees must be hired and retained, the job must be executed in a decent way, and employees must perform beyond the job requirements. That is, “there must be innovative and spontaneous activity in achieving organizational objectives which go beyond the role specifications” (p. 132). Therefore, a cooperative employee is considered to be a person who executes activities that are above and beyond his/her responsibilities for the wellbeing of the organization.

Fourth, Bolino et al. (2002) also make a case that OCB has a positive impact on organizational effectiveness. Here, scholars suggest that “citizenship behaviors enhance firm functioning by contributing to the development of social capital in organizations; specifically, citizenship behaviors contribute to the creation of structural, relational, and cognitive forms of social capital” (p.505). Furthermore, Podsakoff and MacKenzie (1994) argue that organizational performance can be improved because “OCBs may contribute to organizational
success by (a) enhancing coworker and managerial productivity, (b) freeing up resources so they can be used for more productive purposes, (c) reducing the need to devote scarce resources to purely maintenance functions, (d) helping to coordinate the activities both within and across work groups, (e) strengthening the organization’s ability to attract and retain the best employees, (f) increasing the stability of the organization’s performance, and (g) enabling the organization to more effectively adapt to environmental changes” (pp. 138-39).

However, even though OCB is often associated with performance and organization effectiveness, little is known about the psychological mechanisms that are behind the relationship between OCB and its antecedents and outcomes. For example, Hui, Lam, and Law (2000) examined whether OCB is related to organizational rewards (promotions). They found that there is a positive relationship between OCB and self-interested behaviors, which are based on expected returns. The logic is that employees who perceive OCB as instrumental to get rewards from the organization (promotions) are more likely to perform citizenship behaviors at their jobs. However, when the employees obtain their rewards or promotion, they may decrease levels of OCB.

Based on the social exchange theory, the notion of fairness of supervision held by employees also explains organizational citizenship behaviors because, in a social exchange relationship, “individuals...are motivated by the returns they are expected to bring and typically do in fact bring from others” (Blau, 1964, p. 91). Korsgaard et al. (2010) argue that OCB, based on the social exchange theory, is beneficial actions to the organization in exchange for those benefits received from the organization. The exchanges, according to the scholars, are regulated by expected reciprocity (i.e., paying me forward) and the obligation to reciprocate
(i.e., paying you back). Employees’ engagement in OCB need not be based on altruistic and selfless acts. It can also be based on self-serving motives (Banki, 2010).

In fact, according to Cropanzano and Mitchell (2005), OCB can be seen as a set of moral norms that creates an expectation of reciprocal actions from others. The factors explaining employees engaging in OCB need not be voluntary but may be socially constructed by organizational norms and culture. The behaviors are based on the frequency of social interactions and the importance of reciprocity. Here, a reciprocal exchange is defined as “one that does not include explicit bargaining” (Cropanzano & Michel, 2005, p. 876). For instance, Korsgaard et al. (2010) argue that, contrary to the expected reciprocity, the normative obligations to reciprocate are based not necessarily on self-interested behaviors but on adherence to norms of behavior (i.e., thinking heuristically). Korsgaard et al. found that the OCB of individuals with high levels of concern for the wellbeing of others was influenced by the obligation to reciprocate (i.e., paying you back) rather than by expected reciprocity (i.e., paying me forward).

When employees execute tasks that are neither required nor rewarded in the organization, these actions, in aggregate, will benefit the organization because OCBs enhance resource transformation, innovation, and adaptation (Organ, 1988). In addition, OCB can lead to “contributions to the maintenance and enhancement of the social and psychological context that support task performance” (Organ, 1997, p. 91). Thus, I hypothesize that:

\[ H_1: \text{Public employees’ engagement in organizational citizenship behaviors (OCB) will be associated positively with their perceptions of public organizational performance.} \]
Figure 2. Hypothesized model.

Transformational Leadership Style and Organization Performance

The extant literature often argues for the importance of leadership styles in organizational performance (Wimbush & Shepard, 1994; Wright & Pandey, 2010). According to Vigoda-Gadot (2007), transformational and transactional leadership styles are the main concepts of the current leadership theory. Transformational leadership is, according to Burns (1978), the emotional influence of the leaders over their followers. This leadership style requires the leader to support employees’ needs in order to motivate them to work at levels higher that of their basic expectations: “the result of transformational leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents” (p. 4). Burns (1978) defines transformational leadership as a
process in which “leaders and followers raise[s] one another to higher levels of morality and motivation” (p. 20). For instance, studies on organizational behavior suggest that employees’ perceptions of leadership styles (such as transformational leadership) can influence employees’ motivation to take on extra activities that are often not defined by their job descriptions (Vigoda-Gadot, 2007).

The relationship between organizational performance and leadership style has been considered elsewhere. Ferris and Rowland (1981), for instance, suggest that the leader’s behavior influences employee job performance perceptions, and, consequently, the leader affects attitudes toward the job performance. Wang et al. (2005) argue that leadership is considered as the principal cause that affects employees, managers, and organizational performance. The theory of transformational leadership assumes that leadership is associated positively with the productivity in the organization because one of the tasks of the leader is to manage the employee behaviors to reach desirable goals. Vigoda-Gadot (2007), for example, found that there is a correlation between leadership style and organizational performance. The scholar also found a positive correlation between transactional leadership, transformational leadership, and organizational performance, but a higher association between transformational leadership and performance.

However, Vigoda-Gadot (2007) argues that, in other studies, a negative relationship between transactional leadership and organizational performance has also been supported. This occurs because transactional leadership is, according to the leader-member exchange theory, an interest-based relationship. That is, the leader’s ability to build a rewards/sanctions system necessary for the interactions (economic and social) in the organization may have a
negative impact on employee performance. Even when the transactional leader seems to promote subordinates’ interest, the subordinate may perceive this behavior as a part of the strategy.

It has also been argued that because transformational leaders are often perceived to be “doing the right things” (e.g., leaders are available to teach, guide, and give personal attention to each follower to encourage them to perform above and beyond), they are also expected to encourage and enhance employees’ identification with the organizational mission (Bass 1985). Transformational leaders are also expected to create an environment that allows employees to internalize the importance of organizational values. Recently, Vigoda-Gadot (2007) found a stronger relationship between transformational leadership and performance than the relationship between transactional leadership and individual performance among public sector employees. This was the case because leadership style shapes the perceptions of more fairness, greater equity, and a less political work environment. Moreover, such an environment should motivate excellent performance for both in-role as well as extra-role activities.

Lowe, Galen, and Sivasubramaniam (1996) in their meta-analysis study found a stronger association between transformational leadership (e.g., charisma and intellectual stimulation) and leadership effectiveness in the public sector than in the private one. Parry and Proctor-Thomson (2003) also found a positive association between public organizations’ effectiveness and innovation, and transformational leadership. They argue that transformational culture suggests that individuals should have as their goal the good of the work unit, organization, or country rather than their own self-interest. Thus, I hypothesize that:
H₂: If public employees perceive that their organization is practicing a transformational leadership style (TLS), they are likely to have a positive view of the performance of their organization (POP).

There is also evidence to suggest that transformational leadership style has an effect on organizational citizenship behaviors. Public employees who view their leader as being a transformational leader will have a strong tendency to support the important roles of good citizenship. According to Vigoda-Gadot (2007), a transformational leader, who is perceived as having professional and personal integrity, can create a friendly environment allowing employees to encourage the spirit of mutual trust and commitment. The positive association, in turn, explains their views regarding the performance of their organization. For the most part, the current literature on leadership styles suggests that when managers lead an organization, their leadership style is an important factor which drives their organizational performance (Wang et al., 2005), but the association is mediated by the likelihood of the employees’ willingness to act for the goodness (doing good and doing well) of the organization.

In addition, Podsakoff et al. (2000) argue that transformational leadership has a positive association with OCB because transformational leadership is related to the ability to motivate employees to perform above expectations: that extra effort may show up as citizenship behaviors. Furthermore, TLS influences employees’ decisions to take on extra activities or altruistic tasks that are often not defined by their job descriptions (Vigoda-Gadot, 2007). For example, OCB includes arriving on time, working late, and helping others in order to meet organizational goals. Thus, I hypothesize that:

H₃: If public employees perceive that their organization is practicing a transformational leadership style (TLS), they are likely to engage in organizational citizenship behaviors (OCB).
Public Service Motivation and Organizational Performance

Although the evidence on public service motivation and individual performance is anticipated to show a positive association, the empirical evidence suggests such an association to be rather weak (Perry & Wise, 1990, p. 370). Perry, Hondeghem, and Wise (2010) argue that even though the research supports that PSM matters for performance, there still exist some doubts about its level of importance, as well as to whether its effects are collective rather than individual.

Public service motivation (PSM) is defined by Perry and Wise (1990, p. 368) as an “individual’s predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations.” Rainey and Steinbauer (1999) define PSM as “a general altruistic motivation to serve the interests of a community of people, a state, a nation, or mankind” (p. 23). Other authors such as Vandenabeele, Scheepers, and Hondeghem (2006) define PSM as “the belief, values and attitudes that go beyond self-interest or organizational interest, that concern the interest of a larger political entity, and that induce, through public interaction, motivation for targeted action” (p. 15). In sum, Houston (2006) argues that, broadly speaking, PSM involves commitment to the public interest by serving others and sacrifice.

Parry and Wise (1990) identify three factors explaining PSM: rational, norm-based, and affective factors. Rational motives are those grounded in the individual utility maximization, norm-based motives are motives grounded on the willingness to serve the public interest, and affective motives are grounded in the individual’s emotions. The authors argue that these motives are associated with public service. Rational motive is the need to participate,
example, in the process of policy making, in order to satisfy personal interest. Norm-based motive is based on the need to serve the public interest and social equity. And affective motives are supported by the need of individual emotions such as patriotism or benevolence. Brewer, Selden and Facer (2000) empirically tested the three motives in public employees and found that in order to capture individual conceptions of PSM, individuals should be classified into four groups: Samaritans (i.e., individuals who are highly motivated to help others) who are concerned about other individuals, communitarians (i.e., people motivated by civic duty and public service) concerned about their communities, patriots (i.e., individuals act for causes that are bigger than themselves such as working for the public interest) concerned about their country, and humanitarians (i.e., those individuals that have strong sense of social justice and public service) concerned about humankind. They found that all four groups demonstrated the three motives (i.e., rational, norm-based, and affective).

The theoretical underpinning of PSM also closely related to the new public service (NPS). The idea of “public spirit,” according to DeLeon and Denhardt (2000), is associated with the employees’ concern for the public interest. The public interest, DeLeon and Denhardt argue, goes beyond politics and is based on the self-interest of the individual because, when citizens act for the interest of the community, “they move from a lonely, insulated existence to one of virtue and fulfillment. The process of contributing to the community is ultimately what makes one whole” (p. 93). In NPS, the notion of public interest is defined as “the result of a dialogue about shared values” (Denhardt & Denhardt, 2003, p. 29), while public service motivation (PSM) is “a desire to serve the public interest, loyalty to duty and to the government as a whole, and social equity” (Perry & Wise, 1990, p. 369). The literature on NPS and PSM
suggests that public employees seek to serve the public interest. I hypothesize that:

$$H_4:$$ If public employees have a strong commitment about public service motivation (PSM), they are likely to have a favorable view of the performance of their organization (POP).

Public Service Motivation and Organizational Citizenship Behaviors

The association between public service motivation (PSM) and organizational citizenship behaviors (OCB) is nothing new. Theoretically, several factors can explain the association. For example, DeLeon and Denhardt (2000), in their discussion of self-interest versus the public spirit, argue that democratic citizenship considers that the “the role of the citizen looks beyond self-interest to the larger public interest” (p. 93) because citizens that act for the public interest are people emotionally attached to serving the public.

Kim (2006) found that the higher the levels of public service motivation (PSM) expressed by public employees, the more positive the perceptions they have regarding performing tasks that are above and beyond their job descriptions. He argues that individual employees’ altruism and conscientiousness are related to employees’ motivation to work in the public organization. Kim (2006) argues that public employees in Korea with high public service motivation are more likely to express favor regarding good citizenship behaviors than employees with low service motivation. Specifically, some Korean employees in the public sector often act based on altruism and tend to be conscientious in relation to others. Additionally, public employees with a strong motivation to serve the public can promote the effective functioning of the public organization through good citizenship behaviors. For example, employees motivated to serve others can aid co-workers by assisting to lift a heavy
load or by not being late and not wasting time while working.

Compared to employees with low levels of public service commitment, some studies have found that those who are committed to the public organization’s missions and general goals are more likely to engage in organizational citizenship behaviors, such as helping new employees, helping co-workers with their tasks, and not taking long or unnecessary breaks, among others. For instance, a study conducted by Pandey et al. (2008) found evidence to support the argument that a positive relationship between public service motivation and interpersonal citizenship behavior highlights the importance of non-monetary incentives as a means to improve public sector performance. In another study, Deckop et al. (1999) found that pay-for-performance is associated negatively with extra-role behaviors among employees with low levels of commitment, but not for workers with high levels of commitment to the organization. This suggests that the commitment of public employees in performing their official duties can mediate the impact of organizational performance via extra-role behaviors.

Furthermore, Christensen and Whiting (2009) argue that individuals with high levels of public service motivation show high levels of compassion, interest for the good of the community, and the expectation to sacrifice personal benefit for the wellbeing of others. These authors argue that the above values are closely related to those of citizenship behaviors. For example, when individuals are loyal to the organization, they are more likely to look for the good of the organization. Thus I hypothesize that:

H₅: If public employees have a strong commitment to public service motivation (PSM), they are likely to engage in organizational citizenship behaviors (OCB).
Mediator Roles of Organizational Citizenship Behaviors

In light of the above hypotheses, it is also possible to deduce that, if public employees have a strong motivation to serve as public servants (PSM), we can expect them to view favorably the voluntary performance of additional duties often not defined by their job descriptions (OCB). The linkages explain their perceptions about the effectiveness of an organization (Organ, 1988). In other words, public employees with high levels of public service motivation (e.g., employees with high commitment to the public interest) will have a strong tendency to be good citizens; such attitudes are associated with the performance of their organization. The public employees’ perceptions of their engagement in citizenship behaviors will mediate the positive association between public service motivation\(^5\) and public organizational performance.

The reason that public employees have a favorable perception of public organizations is because of their strong beliefs and values to serve the public (PSM). In the organization that they serve, the values can translate into good citizenship behaviors. Several mechanisms can explain the mediating effect: first, scholars argue that an employee’s altruism and conscientiousness toward other employees are related to their motivation to work in the public sector. If employees have a strong motivation to serve the public, there is also a strong likelihood that they will perform above and beyond what is expected of them (Kim, 2006). Second, scholars also point out that those committed to serve in a public organization are more

\(^5\) The literature also considers the relationship between public service motivation and transformational leadership. Following Paarlberg and Lavigna’s (2010) argument, transformational leadership can also promote public service motivation because theoretically, transformational leadership evokes emotions that encourage followers beyond their self-interest in order to reach higher goals. It also shapes an ideology based upon higher level values to create a vision of the future for public service values.
likely to engage in organizational citizenship behaviors. The non-monetary incentives are a strong motivator for employees to contribute to the improvement of the public sector performance (Rainey, 1982). Moreover, they also have relatively high levels of compassion, interests in local community affairs, and expectations to sacrifice their personal benefits for the wellbeing of others (Vandenabeele, Scheepers, & Hondeghem, 2006). Thus I hypothesize that:

\( H_{M1} \): PSM is associated with public organizational performance because of the influence of OCB.

The mediator role of OCB can also be tested when considering the transformational leadership style (TLS) and organizational performance (POP). That is, if employees perceive that their organization is based on a transformational leadership style, they are also likely to have a strong positive view about the performance of their organization; but the effect is mediated by their citizenship behaviors. For instance, based on hypotheses \( H_1, H_2, \) and \( H_3 \), it is reasonable to infer that, if public employees perceive a transformational leadership style existing in their organization, they can be expected to behave as good citizens. The positive association, in turn, explains their perceptions of the performance of their organization.

The indirect association can be explained in the following way: employees will exhibit altruistic behaviors if their workplace environments conduce them to do so (Schein, 2010), suggesting that leadership styles (TLS) might affect the willingness of an individual employee to voluntarily contribute to the functioning of an organization (OCB). While it is generally argued that leaders shape the environment in a workplace (Vigoda-Gadot, 2007), under certain leadership styles employees are encouraged to behave consistently with civic virtue; this suggests the importance of having a leader that can inspire others to achieve “higher levels of morality and motivation” (Burns, 1978, p. 20). In light of these arguments, leadership styles can
indirectly affect employees’ perceptions about the effectiveness of their organization; but the effect depends on the creation of a conducive working environment. The working environment can inspire employees to contribute voluntarily to the functioning of the organization. Thus, I hypothesize that:

\[ H_{M2}: \text{OCB plays a mediator role between TLS and POP.} \]

Individual Characteristics

Scholars have also studied the variation across individual characteristics. This dissertation delves into the differences across (1) gender, (2) job descriptions or major tasks performed by employees in an organization, and (3) places of employment within the public sector. The inclusion of these individual characteristics helps to give a better understanding of the relationship between the extra-role behaviors and organizational performance as well as the influence of transformational leadership and the motivation to work for the public interest.

Gender Differences

The perceptions about organizational performance between females and males may vary. Lovell et al. (1999), for example, found that females are more likely to engage in OCB and behave altruistically than males. Based on the socially constructed perspective, because of gender stereotyping, they are expected to be more helpful, courteous, and kind toward their co-workers compared to males. Deviating from the norms would penalize them more than males, suggesting that female employees are more likely to engage in these activities and benevolent actions. However, the literature on the association between OCB and
organizational performance across genders provides mixed results. While Okediji et al. (2009) did not find a significant difference between males and females who engaged in citizenship behaviors, Miao and Kim (2009) found a stronger relationship between OCB and job satisfaction for males than females. The difference can be attributed to the fact that males are more willing to change the status quo by making constructive suggestions compared to females. On the other hand, males may be more likely to engage in OCB because of the expected rewards if they act contrary to the norms, whereas females are less likely to be rewarded, since their actions are expected given societal norms. Lack of differences can be attributed to the gender neutrality of the concept of OCB, when both male and female generally performed OCB.

The argument that gender plays an important role in explaining employees’ tendency to perform OCB can also be found in management literature. Because OCB benefits the organization since it has no obligation to compensate those who demonstrate such behaviors, there is a strong case for management to utilize the different expectations of their employees based on the gender roles. For instance, female employees are believed to be more consistent with the tenets of support and care-giving than with dominance and aggression. However, their services or actions tend to be under-valued by the organization. Their tendency to engage in OCB more than males, because of gender roles, often determines their behaviors in the workplace (e.g., they are more helpful, courteous, and kind) (Lovell et al., 1999).

Moreover, there are also differences among males and females when it comes to the motivation to serve in the public sector. For example, according to organizational theorists, male employees have more opportunity to be employed as managers, compared to female employees, who tend to be found in service-oriented employment activities (Bright, 2005;
Parry 1997; Naff & Crum, 1999). The differences, as suggested by Bright (2005), can be explained by social reasons. That is, males are expected to be more competitive, aggressive, and dominant, whereas females are considered to assume caretaking roles in society (i.e., the gender socialization perspective). According to this argument, the motivation to serve the public is also linked to the gender role.

Variation across Occupational Tasks

There are also variations across employees assigned to different employment activities (e.g., service, managerial, or maintenance). For example, the argument for certain employees having stronger OCB than others can be linked to the notion of street level bureaucracy (e.g., teachers, police officers, health workers, and lawyers) (Lipsky, 1980). According to Lipsky, certain occupations have more discretion than others when implementing public programs. According to Bright (2005), public employees with higher managerial positions are more likely to engage in altruistic behaviors than employees working in a lower government position. While employees working and serving the public in the service area may have direct contacts with the public, those who work at the management level tend to have an overall view of government operations, and thus have a better assessment of the difficulties of coordinating resources.

Bright (2005) also suggests that employees with higher educational levels tend to be in higher employment positions. They are more likely to have higher levels of PSM because they are generally active in community service and thus show compassion towards others. They are also more likely to demonstrate good citizenship behaviors, which influence their perceptions...
of organizational effectiveness because of their internal desire to serve others. The employees can enhance departmental and organizational performance “by ‘lubricating’ the social machinery of the organization, reducing friction, and/or increasing efficiency” (MacKenzie, 1997, p. 135).

Compared to employees working in the service area, administrators at the managerial level may be influenced by their leaders, since they are evaluated for their performance (Dvair et al., 2002). They are likely to perform activities voluntarily in order to receive better appraisals. As suggested by MacKenzie, Podsakoff, and Paine (1998), sales managers tend to have better appraisals than salespeople, suggesting different tasks or occupational positions influence the behavior of employees. The literature also suggests that managers tend to value citizenship behaviors and reward the employees when making appraisal of their subordinates (Allen & Rush 1998; MacKenzie et al., 1998). Moore and Love (2005) made a similar observation when they examined those who worked in the IT professions. They found that IT professionals are less likely to display OCB than professionals from other areas. Other studies also have shown variation across different types of employment such as restaurant employees (Stamper & Van Dyne, 2001), nurses (Altuntas & Baykal, 2010), teachers (Belogolovsky & Somech, 2010), service workers (Felfe & Heinitz, 2010), and military personnel (Gurbuz, 2009).

Levels of Government

Although all levels of employees in the public sector face similar administrative constraints and challenges (e.g., wicked problems⁶), how they respond to the problems varies

---

⁶ For example, Rittel and Webber (1973) argue that social policy programs are more likely to fail because of the
according to the differences of the working environments at the federal, state, and local levels. The comparisons of attitudes regarding OCB among employees are likely to reflect the uniqueness of employment conditions at each level of government. State and local employees, for example, undertake different activities and have consistently received a higher degree of public trust than federal employees (Durst & DeSantis, 1997). For instance, Schede (2011) suggests that employees of local government tend to be driven by their working environments at the local level, which shapes their perception of what the government can and cannot do for the welfare of the citizens. The argument also suggests that employees from different levels of government have different work-related tasks and thus different expectations about desirable social-related outcomes.

Local government employees are more likely to perform pro-social behaviors (such as volunteering and making charitable donations) compared to those working at the higher level of government (Schede, 2011) because they have stronger ties with the local communities (McAdam & Paulsen, 1993). Local government employees tend to work closer to their familiar environments; therefore, they tend to be more sensitive to local conditions affecting the daily life of their communities. This suggests that they are more likely to engage in citizenship organizational behaviors because of their familiarity with their local problems.

The next chapter provides the research design to examine the attitudes of public employees concerning Organizational Citizenship Behavior (OCB) and determine whether there nature of their problems. Some of the issues underlying these problems are an unclear definition of equity and the indisputable public good. In addition, more often than not, the results of the social policies are not assessed as correct or false. These authors refer to them as “wicked” problems, which include no straightforward solutions, the involvement of several individuals and organizations, and the existence of stakeholders with different preferences.
is an association between OCB and employees’ perceptions about public organizational performance.
CHAPTER 3
RESEARCH DESIGN AND DATA COLLECTION

In this Chapter, I present the research design and discuss the data collection procedures. The next section presents the geographical, political, and economic background of Guadalajara metropolitan area (GMA), highlighting the rapid economic and population growth of the region. The section also discusses the challenges facing local, regional, and state administration in coping with the population growth, as well as the institutional reforms that were introduced by federal and state governments in the early 1980s.

The chapter also discusses the data collection procedures with special attention to issues related to sample selection, development of the survey instrument, construct reliabilities, and validity. The main discussion focuses on the analytical procedures related to the exploratory factor analysis (EFA) and the confirmatory factor analysis (CFA). Both analyses are part of the processes followed in implementing structural equation modeling (SEM). Based on the hypothesized model, the final section outlines the methods used to evaluate the differences across three groups: (1) gender, (2) levels of government in which respondents were employed, and (3) the main employment activities of respondents.

Selection of Guadalajara Metropolitan Area (GMA)

This study was conducted in the Guadalajara metropolitan area (GMA), located in the western-pacific region of Mexico (see Figure 3). The metropolitan area was chosen for several reasons. First, the metropolitan area is the center of state and local government administration, as well as of economic activities because of its population and its economic development. Guadalajara City, for instance, is the capital of the State of Jalisco, where most
government administrative offices are located. Second, the metropolitan area has also witnessed several political reforms instituted by the federal government, such as the introduction of the Civil Service System in 2003 (Olivos-Campos, 2003), the General Program of Administrative Simplification (1989-1994), the National Agreement to Increase Productivity and Quality (1992), the National Program to Modernize the Public Company (1990-1994), and the Program for Modernization of the Public Administration (1995-2000) (Moyado-Estrada, 2002).

Figure 3. The research site: The Guadalajara metropolitan area, Jalisco, Mexico. Source: State of Jalisco (Web Site).

The GMA is the largest metropolitan area in Jalisco State and the second largest in Mexico. Additionally, the region boasts the second largest economy in the country, with a relatively strong industrial production capacity, particularly for high technology industries. Although the region has experienced a gradual decrease in manufacturing production since the 1982 debt crisis and the subsequent 1994 peso crisis, the region still plays an important role in Mexico because of its population size, as well as its economic-political characteristics. The decentralization policies of the federal government that began in the early 1980s have impacted the provision of public services in the region. It is expected that in 2030, the
metropolitan area will have 67% of the total state population. Because of the growth in the region, the different government levels anticipate an increased demand for the production and provision of public services.

Political and Demographic Structure of GMA

In 2010, it was reported that the GMA had 4.4 million inhabitants, less than Mexico City, which had approximately 22.4 million people (see Table 1). If the undocumented population were taken into account, the estimated population would have been even larger. Guadalajara and Zapopan are the biggest cities in the region, each with over a million inhabitants as shown in Table 1. The peripheral municipalities (i.e., Ixtlahuacán de los Membrillos and Juanacatlán) are the smallest jurisdictions in terms of population size. According to the National Institute of Statistics and Information (INEGI)\(^7\) (2007), the GMA is made up of 8 municipalities (see Figure 3). Six of them, Guadalajara, El Salto, Tlajomulco de Zúñiga, Tlaquepaque, Tonalá, and Zapopan, are experiencing rapid and continuing urbanization, while the rest of the municipalities, such as Ixtlahuacán de los Membrillos and Juanacatlán, are peripheral in terms of economic activities and population size. These municipalities are not located within the urban area, but are highly integrated with the central cities.

The region is politically fragmented, but since the decentralization policies of the federal government were implemented in the early 1980s, state and municipal governments have played important roles in governing the region. Scholars have also argued that the decentralization policies have made a difference in the improvement of large cities in most

---

\(^7\) INEGI, a Mexican institution designated to manage information about the country. The official name in Spanish is Instituto Nacional de Estadística Geografía e Informática.
metropolitan areas in Mexico (Cabrero Mendoza, 1996; Ramírez Sáiz, 1998; Grindle, 2007).

There are about 21 state agencies\(^8\) and more than 20 large federal agencies\(^9\) located in the region.

Table 1

**Population of the Guadalajara Metropolitan Area (GMA)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>80,840,62</td>
<td>91,067,435</td>
<td>95,753,396</td>
<td>100,638,07</td>
<td>112,336,538</td>
</tr>
<tr>
<td>Jalisco State</td>
<td>5,302,689</td>
<td>5,991,176</td>
<td>6,322,002</td>
<td>6,752,113</td>
<td>7,350,682</td>
</tr>
<tr>
<td>Guadalajara Metropolitan Area</td>
<td>3,003,868</td>
<td>3,482,417</td>
<td>3,699,136</td>
<td>4,095,853</td>
<td>4,434,878</td>
</tr>
<tr>
<td>Municipality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guadalajara</td>
<td>1,650,205</td>
<td>1,633,216</td>
<td>1,646,319</td>
<td>1,600,940</td>
<td>1,495,189</td>
</tr>
<tr>
<td>Ixtlahuacán de los Membrillos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Membrillos</td>
<td>16,674</td>
<td>20,598</td>
<td>21,605</td>
<td>23,420</td>
<td>41,060</td>
</tr>
<tr>
<td>Juanacatlán</td>
<td>10,068</td>
<td>11,513</td>
<td>11,792</td>
<td>11,902</td>
<td>13,218</td>
</tr>
<tr>
<td>El Salto</td>
<td>38,281</td>
<td>70,085</td>
<td>83,453</td>
<td>111,436</td>
<td>138,226</td>
</tr>
<tr>
<td>Tlajomulco de Zúñiga</td>
<td>68,428</td>
<td>100,797</td>
<td>123,619</td>
<td>220,630</td>
<td>416,626</td>
</tr>
<tr>
<td>Tlaquepaque</td>
<td>339,649</td>
<td>449,238</td>
<td>474,178</td>
<td>563,006</td>
<td>608,114</td>
</tr>
<tr>
<td>Tonalá</td>
<td>168,555</td>
<td>271,857</td>
<td>337,149</td>
<td>408,729</td>
<td>478,689</td>
</tr>
<tr>
<td>Zapopan</td>
<td>712,008</td>
<td>925,113</td>
<td>1,001,021</td>
<td>1,155,790</td>
<td>1,243,756</td>
</tr>
</tbody>
</table>


Municipal governments with various administrative capacities have elected mayors and municipal councils (*cabildos*) responsible for a variety of functions related to local issues (Mexican Constitution, Article 115). The responsibilities of municipal councils and appointed officials are somewhat vague (Moyado-Estrada, 2002); however, their roles continue to change since the institutional reforms of the early 1990s. However, local governments depend on federal fund transfer and state funding for the construction and maintenance of infrastructure. Although most municipalities have good availability of water supplies, local officials still regard

\(^8\) [http://www.jalisco.gob.mx/wps/portal/Gob_dependencias](http://www.jalisco.gob.mx/wps/portal/Gob_dependencias)

public utilities as the most important issue for local governments in Mexico (Cleary, 2007). In addition to public agencies, there are various types of advocacy groups and human services non-governmental organizations in the region (the State of Jalisco, for example, had about 548 registered NGOs in 2002) (Rosas, 2002). There are also several regional governments that are responsible for coordinating regional policies, such as the Metropolitan Council of Guadalajara, *Sistema de Agua Potable y Acantarillado (SIAPA)*.

In terms of the average annual population growth rate, however, the inner city (Guadalajara) has experienced a steady decline of population growth during the period of 2005-2010 (see Table 2).

Table 2

<table>
<thead>
<tr>
<th>Average Annual Population Growth Rate$^{10}$ of GMA (Estimation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-95</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td><strong>Mexico</strong></td>
</tr>
<tr>
<td>Jalisco State</td>
</tr>
<tr>
<td>Guadalajara Metropolitan Area</td>
</tr>
<tr>
<td><strong>Municipality</strong></td>
</tr>
<tr>
<td>Guadalajara</td>
</tr>
<tr>
<td>Ixtlahuacán de los Membrillos</td>
</tr>
<tr>
<td>Juanacatlán</td>
</tr>
<tr>
<td>El Salto</td>
</tr>
<tr>
<td>Tlajomulco de Zúñiga</td>
</tr>
<tr>
<td>Tlaquepaque</td>
</tr>
<tr>
<td>Tonalá</td>
</tr>
<tr>
<td>Zapopan</td>
</tr>
</tbody>
</table>

*Source:* Data were compiled from the Census of 1990, 2000, and 2010 and Population Counts in 1995 and 2005. The projection was conducted by the author.

$^{10}$ The average population growth rate was calculated by using the mathematical formula $P_1=P_0e^{rt}$ then $r=(ln(P_1/P_0))/t$; where $r$ = Average annual population growth rate, $P_1$ = Population at the end of period $t$, $P_0$ = Population at the beginning of the period $t$, $e=2.7172...$, $ln$ = Natural logarithm, $t$ = Period of time (Alpha & Wainwright, 2005). The period of time was calculated based on the Census and Count dates. For example, the period of time between the Count I of 1995 (November 5, 1995) and the Census XII of 2000 (February 14, 2000) was approximately $t=4.27$ years.
In contrast, the municipalities of Tlajomulco and Ixtlahuacán de los Membrillos have seen
tremendous growth during that same time period; i.e., the average growth rate was estimated
to be greater than 12% per year. That is, during the same period of time, the municipalities
have experienced a doubled growth rate in terms of population size (see Table 1), suggesting an
anticipated increase in future demand for public services. The population projection for GMA
also suggests that the population will eventually pressure the public employees in the federal,
state, and local governments to respond to their local needs. Yet, in Mexico, according to
Cabrero (2005), the majority of Mexican municipalities have obsolete administrative systems
and their human resources have inadequate professional skills. Given the limited resources,
the local, state, and federal governments will face tremendous pressure to improve their
service delivery.

The unemployment rate in the region was estimated at 7.1% for July-September of 2009
(Estrada-Cortes, 2009). In 2011, it was estimated that those living in poverty, which represent
about 42.5% of the total economically active population in the region, earned between US$ 9
and US$ 22 per day (En un trimestre creció 46% el desempleo en Guadalajara, 2011). If the
number of migrants and the non-registered population were taken into account, the official
data would likely be an underestimation of the poor and extreme-poor populations in the
region.

One indicator of urban poverty in the GMA can be assessed through the types of
housing and the locations in which people live. Although the official count for migrants that
arrived within the state is not known, some suggest that migrant workers in GMA live in poor
conditions around the east side of the metropolitan area. Most poor households found in *colonias* live in extreme poverty and are involved in the informal sector (see Rosas 2002).

Concentrated poverty was also most evident in the *colonias* or neighborhoods around Tonalá municipality, located on the outskirts of the metropolitan area. In 2000, for example, the *colonias* accounted for 20% of urban housing in the GMA (Cabrales Barajas & Canosa Zamora, 2001).

Institutional Reforms in Mexico

Given the political structure, poverty, and population density in the metropolitan area, there have been numerous calls for political reforms. For example, community leaders have called for the metropolitan governments in Mexico to act and develop mechanisms that would allow a regional approach to solving complex regional concerns. In this instance, the Governor of Jalisco, Emilio González Márquez (*Necesario, un nuevo modelo: Emilio*, 2007), argued that it is necessary to rethink the possibility of an intermediate level of government between the State and the city. Although such a reform would involve new challenges for various levels of government (i.e., municipal, state, and federal) regarding the provision of urban services, the reform would also lead to a coherent set of regional planning processes and shared administrative responsibilities.

At the federal level, much of the institutional reform was introduced during the early period of the 1980’s by the Mexican government under the Party of the Institutional Revolution. The reform aimed to improve the government’s performance i.e., to “promise better governance and deeper democracy as public officials are held more directly accountable
for their actions and as citizens become more engaged in local affairs” (Grindle, 2007, p. 2). The reforms went through two important implementation stages (Grindle, 2000). In the 1980s, the first stage of reform—under the administrative decentralization policy—emphasized the federal efforts to assign more responsibilities to the states and municipalities (reform to article 115 of the Mexican Constitution).

During the second stage of reform, which occurred in 1998, there was a marked increase in political and fiscal responsibilities among state and local governments (under Article 115), which strengthened the municipalities’ regulatory role and allowed them to assess and collect property taxes. Under the reform, the federal government recognized the municipalities as part of its branch to implement public policies, not only for administrative reasons, but also to endue them with policymaking autonomy (Grindle, 2007). The reform provided the municipalities with additional resources and autonomy to make decisions regarding local expenditures (Raich, 2003).

The decentralization policy was supported by the Fox administration (2000-2006), which emphasized the importance of decentralizing power in the country by giving to the states and municipalities more control over their administrative, fiscal, and political concerns. The President launched the “Program for Authentic Federalism,” which attempts to make the government more efficient and responsive to their constituents. Additionally, the program established citizenship participation to strengthen local government and improve intergovernmental relations (Grindle, 2007). The reform also increased local governments’

---

11 The reform assigned responsibilities to municipalities to deliver running water, drainage and sewer systems, public lighting, public markets, trash collection, cemeteries, slaughterhouses, streets maintenance, public parks, and public safety.
accountability (Diaz-Cayeros, McElwain, Romero, & Siewierski, 2002). Other efforts were made at the federal level to change the attitudes and behaviors of public employees in Mexico, including the introduction of the Civil Service System in 2003 at the federal administration level (Olivos-Campos, 2003).¹²

Localities have attempted to coordinate with the State Government on projects related to clean water and the sewage system¹³ (in Spanish the official name is “Sistema de Agua Potable y Acantarillado” or SIAPA). However, the implementation of state projects at the regional level has been difficult. The projects were first introduced in 1978 by the State Government Initiative in order to meet the local residents’ needs at the regional level. In 1989, the Metropolitan Council of Guadalajara was set up through similar initiatives in order to coordinate and regulate region-wide urban growth. More recently, in 2009, the Law of Metropolitan Coordination was introduced by the State of Jalisco with the objective to establish basic functions, competencies, and responsibilities of municipalities within the metropolitan area.

At the regional level, formal cooperative arrangements within the GMA had mixed results. For example, though SIAPA has shown to be an efficient way to manage running water and sewage, in other circumstances (such as the metropolitan police or even in the Metropolitan Council), there have been serious problems associated with coordinating policies. One reason is the lack of an institutional framework to coordinate various policy preferences of

---

¹² Most municipalities in the GMA have their own ordinances or statutes on civil service systems. See for example: [http://portal.guadalajara.gob.mx/sites/default/files/politicasInternasdelSCC_0.pdf](http://portal.guadalajara.gob.mx/sites/default/files/politicasInternasdelSCC_0.pdf)

¹³ The Mexican Constitution (Article 115) assigns municipalities the responsibilities for the provision of water and sanitation. However, local government depends on federal fund transfers and state funding for the construction and maintenance of infrastructure. Although there is good availability of water supplies in most municipalities, local officials still regard public utilities as the most important issue for local governments in Mexico (Cleary, 2007).
local governments, meaning that according to the Mexican Constitution (Article 115), there is no other type of government entity which coordinates policies between the state government and the municipality.

Understanding Perceptions and Attitudes of Public Employees in Mexico

In light of the institutional reform in Mexico, it is important to examine the perceptions of the public employees regarding the performance of public organizations, particularly in the Guadalajara metropolitan area. According to Schneider, Ashforth, Higgs, and Carr (1996), the employees’ self-reporting on the performance of their organization is associated with third party assessments (e.g., those expressed by the customers). The technique allows researchers to explain how employees measured the extent to which the organization focused on its internal organizational practices affecting its organizational performance (Pugh, Dietz, Wiley, & Brooks, 2002). Because there is a strong correlation between objective and subjective measures (Dess & Robinson Jr., 1984; Dawes, 1999), the subjective measures are an acceptable method to capture the concepts under consideration (Menozzi, 2005). Moreover, understanding the attitudes of public employees will be essential to investigate the extent to which ordinary employees are motivated to serve the public as well as the capacity of their supervisors to encourage them to go above and beyond their normal duties.

In addition, the research conducted in developing countries such as Mexico on citizenship behaviors and public sector performance has been limited. For example, Fisher, McPhail, and Menghetti (2010) argue that few studies have considered the link between employees’ behaviors and attitudes, and organizational performance. They found that OCBs
are associated with global business’ financial outcomes (percentage profit) rather than customer satisfaction, when comparing those in Mexico and China. In the public sector very few, if any, studies have been done in relation to OCBs and public organization performance.

Writing of Mexican employees, Tierney, Bauer, and Potter (2002) note that their extra-role behaviors depend on the relationships they have with their supervisors. In Mexican culture, worker attitudes at the workplace are based on collaborative relations, i.e., as characterized by their sense of loyalty to their managers. Another study on Mexico was conducted by O’Connell et al. (2001), who studied antecedents for organizational citizenship behaviors among Mexican retail salespeople. They argue that the individual personality may be an explanation of OCB. The personality variable was captured in terms of respondents' conscientiousness (i.e., behaviors that help the organization function, such as working late and not wasting company resources) and customer service attitudes, which are the most significant personality characteristics of Mexican employees that may motivate their citizenship behaviors in an organization.

Data Collection Procedures

Data Collection

A self-administered questionnaire under the unsupervised administrative method was used to collect information from the public employees. The unsupervised administrative technique—a popular way to collect primary data—has been used in social science research because of the relative ease of implementation (McKnight, McKnight, Sidani, & Figueredo, 2007; Bourque & Fielder, 1995). According to Bourque and Fielder (1995), the unsupervised
approach is a convenient method for respondents to complete the survey. Another advantage of the approach is that the likelihood of collecting representative samples is relatively high because of a wider coverage. In the context of doing research in Mexico, where mail surveys and phone interviews are limited and somewhat impractical, the approach provides an efficient way to administer data collection. Moreover, given lack of trust in government among residents in Mexico, the respondents are likely to provide information freely on issues on which they otherwise would be reluctant to provide through mail surveys or interviews.

Respondents were invited to complete the survey. Once they had completed the questionnaires, their responses were kept confidential. The survey was placed in a total of 32 public or government offices in local, state, and federal agencies, including commissions and various institutes (see Appendix A). The survey was implemented based on “voluntary response” i.e., the respondents were self-selected and they participated in answering the survey voluntarily.

However, as noted by Bourque and Fielder (1995), there are disadvantages in using this method to collect data from the public. For example, a lack of control over the respondents and potential bias in the sample selection are two of the disadvantages. The lack of control over respondents implies that, once the questionnaire has been distributed to the potential respondents, the researcher cannot be sure of who has actually completed the survey. Another potential problem is related to sample selection, which can cause bias in the final analysis. Despite the limitations, though, the approach in collecting the data is an acceptable method. To minimize the lack of control over the respondents, public employees who volunteered to complete the survey were briefed on the importance of the information they could provide.
The survey instrument is relatively short, with no open-ended questions.

Moreover, to ensure the representative sampling, a comparative analysis among different groups of respondents was performed. For instance, the number of male and female respondents was comparable (i.e., 46% female, 54% male). The graduation rate among public sector employees is about 68 percent, which is consistent with the observations that were reported by Merilee Grindle (2007) for elected and appointed directors of municipal government in her case studies of Mexico. The frequency distribution for age was also normally distributed (i.e., Mean=36 years old, SD=1.1).

Sample Size

A total of 1,500 questionnaires was distributed among public employees working in federal, state, and local agencies. The decision on sample size was based on the data requirements of the structural equation modeling (SEM). Depending on the complexity of analysis and estimation methods, the appropriate sample size to conduct an SEM varies. The sample size, therefore, was pre-determined. According to McQuitty (2004), when conducting an SEM, it is important to pre-determine the sample size in order to achieve a desirable statistical power. Schreiber et al. (2006), for example, suggest at least 10 cases per free parameter to be estimated, while a study conducted by Garver and Mentzer (1999) recommends at least 200 cases. Kline (2011), on the other hand, suggests that a small sample size occurs if the number of cases is less than 100 cases, a medium sample size is between 100 and 200 cases, and a large sample size is when the cases are larger than 200.

Another consideration is based on the complexity of an analysis to be conducted.
According to Hair, Black, Babin, Anderson, and Tatham (2006), if the SEM model contains more than six constructs, the minimum sample size should be larger than 500 cases. Other scholars have suggested that, at a minimum, a sample size can be determined by a rule of thumb that is 10 to 15 cases as many as the number of variables.

Survey Instrument

There were five sections in the survey instrument (see Appendix B). The first part of the survey gathered information about public service motivation, while the second and third parts of the survey sought to gain insight on respondents’ perceptions on organizational citizenship behaviors and transformational leadership styles. The fourth part of the survey gathered information about the respondents’ perceptions on the performance of public organizations. Finally, the general information on respondents' gender, the main activity of their employment, and their employment at various levels of government were also obtained.

Respondents were presented with a total of 52 items in the survey instrument, which was designed to capture public employees’ opinions regarding their perceptions of public organizational performance (POP), their levels of organization citizenship behaviors (OCBs), their levels of public sector motivation (PSM), and their perception of the transformational leadership style (TLS) (see Appendix B).

The public organizational performance (POP) was operationalized through two latent constructs previously used by scholars in the field. The first dimension, which was used by Lusthaus et al. (2002), was on effectiveness, while the second dimension, which was developed by Vigoda (2000), was responsiveness. The operationalization of the first dimension was
executed based on a set of questions that the authors suggested to assess the organizational effectiveness, but the authors did not report the construct validity or reliability (Lusthaus et al., 2002). The second dimension was used by Vigoda (2000), who reported that the scales have an internal reliability of .70, which is considered acceptable in this type of research.

The construct for organizational citizenship behavior (OCB) scales has also been used by scholars in the field and shown to have high construct reliabilities (Lee & Allen, 2002). For example, Lee and Allen (2002) reported the construct reliabilities of .83 for OCBI and .88 for OCBO. The internal reliability of the dimensions was also closely related to the construct of public sector motivation (i.e., commitment with the public interest, compassion, and interest for public policy making). The internal reliability for the construct was reported in terms of $R^2$ (i.e., the percentage of item’s variance that is explained by the construct), which has a Cronbach’s alpha above .70. Reporting the reliability in terms of $R^2$ has its advantages. Coursey and Pandey (2007) argue that the approach, when used to assess the reliability of the construct public sector motivation, has shown to display an acceptable reliability score. Kim (2009), who also used a similar scale, reported the reasonably high internal reliabilities of the items in terms of Cronbach’s alphas: commitment to the public interest (.70), compassion (.71), and attraction to policy making (.75).

On the latent construct of transformational leadership style (TLS) scales, the items were developed by Bass and Avolio (1993). They reported the values for internal validity usually beyond the cutoff of .70 on the Cronbach’s alpha. The TLS captures five dimensions such as idealized influence of attributes and behavior, inspiration, intellectual stimulation, and individualized considerations. Although there have been arguments among scholars regarding
the validity of the items (regarding ambiguity with respect to level of analysis) i.e., whether the items explicitly capture leadership at the individual or group level, the items have been widely used in the study of leadership (see Schriesheim, Wu, & Scandura, 2009).

For the PSM construct, the original scale was developed by Perry and Wise (1990) and (Perry, 1996). The original measure consisted of 24 items. The items were subsequently modified by Coursey and Pandey (2007) with 10 items. Coursey and Pandey suggest that the shorter version can adequately capture the concept of public sector motivation. They also claim that the items are high in validity and reliability scores. The PSM construct can be derived from three components: (1) compassion, (2) public interest, and (3) compassion. The items have been used widely in the US (Coursey & Pandey, 2007; Bright, 2008; Perry 1996), as well as internationally (Vandenabeele & Walle, 2008; Kim & Vandenabeele, 2010), reflecting the reliability of the items in capturing the motivation of employees to work in the public sector across cultures.

The latent constructs developed from these items are described in detail below.

Operationalization of Variables

Public Organizational Performance (POP)

Technically, when scholars speak of organizational performance, it is the people in the organization that are being assessed for performance of duties, tasks, and administrative activities. Dubnick (2005) argues for the importance of a result-oriented performance, which emphasizes the processes of what is being produced, rather than the outcomes of production. In other words, the focus is on the achievement, instead of the actions. While there are various
ways to measure organizational performance, either through its processes and/or through its outcomes, two approaches are commonly used: “objective” or “subjective” measures. The objective measure is output related, for example, the number of citizens served with any organizational service (these measures usually are reported for the organization officials). The subjective measure can be the individual perception on how the organization is performing the service deliberation processes (usually this assessment is done by the organizations’ external stakeholders).

In order to operationalize the construct of public organizational performance (POP), that is, speed, accuracy, and outcomes desired to respond to citizens’ needs, the subjective measures developed by Lusthaus et al. (2002) were employed. The advantage of the scales proposed by Lusthaus et al. is that they can be used to evaluate organizational performance in terms of organizational effectiveness. The measures developed by Vigoda’s (2000) approach were used to capture the level of organization responsiveness. In both approaches, the respondents were asked to report how much they agreed with the items on a response scale ranging from 1 (strongly disagree) to 5 (strongly agree). For example,

“Your organization is effective in meeting those goals as expressed in its charter, mission statement, or other documents that provide the raison d’être for the organization.” (Lusthaus et al., 2002, Chapter 5)

“Your organization responds to public requests quickly and efficiently.” (Vigoda, 2000, p. 176)

The remaining items can be found in the survey instrument (Appendix B).

Organizational Citizenship Behavior (OCB)

Organizational citizenship behaviors are defined as spontaneous and voluntary actions
often not mentioned in the job description that, in the aggregate, enhance organization performance. Public employees are also not expected to receive tangible rewards from the organization if performing extra activities. There are two dimensions to OCB. One is related to the individual, while the other is related to the organization in which the individual is employed. The concept of citizenship behaviors was measured by using a 16-item scale developed by Lee and Allen (2002).

The distinction between individual level citizenship behaviors and organizational level citizenship behaviors was important to consider because of the different antecedents. For example, Williams and Anderson (1991) argue that individual altruism has often been considered a specific type of behavior that occurs without expectation of any external reward. On the other hand, citizenship behavior toward organizational compliance is also crucial because of expected rewards (e.g., more pay) or the avoidance of punishment. In addition, Lee and Allen (2002) argue that citizenship behaviors benefiting the organization were more cognition-driven (e.g., fairness and recognition) than affect-driven (e.g., concern for others and empathy); whereas citizenship behaviors that benefited individuals the most were the other way around.

Examples of items in the survey capturing the concept of organizational citizenship behavior at the individual level (OCBI) are as follows:

“Willingly give your time to help others who have work-related problems”

“Adjust your work schedule to accommodate other employees’ requests for time off”

“Go out of the way to make newer employees feel welcome in the work group”

The construct for organizational citizenship behaviors at the organization level (OCBO)
were captured, for example, by the following statements (also see Lee & Allen, 2002, p. 42):

“Attend functions that are not required, but that help the organizational image”

“Keep up with developments in the organization”

“Defend the organization when other employees criticize it”

Each of the items was purposely designed to gauge the respondents’ agreement with the statements ranging from strongly disagree (1) to strongly agree (5). The rest of the items can be found in the survey (Appendix B).

Public Sector Motivation (PSM)

The construct of public service motivation is defined by Perry and Wise (1990) as an “individual’s predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations” (p. 368). In this study, a similar approach adopted by Coursey and Pandey (2007) was employed to capture the concept of public service motivation. Coursey and Pandey argue that the items they developed are a relatively new PSM scale, based on Perry’s broad scale; and that the scale has equal or better validity and reliability compared to the original scale. The number of items to operationalize the construct of PSM was purposely designed to be shorter. There were 10 items in the survey to capture the concept proposed by Coursey and Pandey (2007), as opposed to 24 items in Perry and Wise (1990).

There were 10 items capturing three major dimensions of public service motivation:

(1) Attraction to public policymaking (PP), which includes statements such as “Politics is a dirty word” and “The give and take of public policy-making does not appeal to me.”

14 All these observable variables are reversed; this means that the higher values of the item indicate lower levels of
(2) Commitment to the public interest (CI), which includes statements such as “I unselfishly contribute to my community” and “Meaningful public service is very important to me.”

(3) Compassion (CO), which includes statements such as “It is difficult for me to contain my feelings when see people in distress” and “I am often reminded by daily events about how dependent we are on one another).”

The assessment of the above items is based on a five-point Likert scale ranging from 1 (Strongly disagree), to 5 (Strongly agree). The rest of the items can be found in the survey (Appendix B).

Transformational Leadership Style (TLS)

The concept of transformational leadership is defined as the ability of a leader to encourage collective interest of the followers, as well as to help them reach extraordinary goals. As such, the transformational leadership style is captured by five dimensions (Bass & Avolio, 1993): (1) idealized influence (attribute), which captures the charisma of the leader if the leader is regarded as having confident, powerful, and higher-order ideals and ethics; (2) idealized influence (behavior), which refers to the charismatic actions of the leader, such as values, beliefs, and commitment to the mission; (3) inspirational leadership, which captures the ways the leader is perceived to motivate his followers by viewing an optimistic future, emphasizing high goals, projecting an idealized vision, and causing the followers to believe that the vision is reachable; (4) intellectual simulation, which captures the perception of PSM.
respondents regarding the actions of a leader that appeal to the followers’ sense of logic and creativity and encourage them to solve difficult problems; and (5) individualized consideration, which captures the perceptions of respondents relating to the behaviors of a leader that motivate satisfaction and support and attentiveness to the follower’s needs, and consequently allows them to self-actualize, and achieve personal development.

The constructs for the transformational leadership style were developed by using the multifactor leadership questionnaire (MLQ), as suggested by Bass (1985) and Bass and Avolio (1993) (see Appendix B). The MLQ instrument is widely accepted in the literature as one of the best scales to construct the dimensions of transformational leadership styles. However, Muenjohn and Armstrong (2008) argue that there have been some critiques of this type of instrument. Basically, the authors argue that the five transformational factors tend to correlate highly with each other and consequently, these factors can be represented as a single factor to capture the transformational leadership style. Despite the limitations, the MLQ was used to operationalize the latent construct for transformational leadership. The CFA was used to test the reliability of the items.

The items from the MLQ are relevant in the Mexican public sector context because, as suggested by Tierney, Bauer, and Potter (2002), Mexican employees tend to be responsive to the transformational style of leadership. Moreover, the items have been tested across different cultures such as those in Venezuela, Mexico, and the Dominican Republic (Northouse, 2010). In addition to being in wide use among the research community, the items have also been translated into Spanish and found to have relatively high validity (Bass, 1997). Although the contextual meaning of leadership varies across cultures, scholars also recognize the
differences in theoretical emphases used to capture the concept of leadership, which suggests a need to modify the items based on the context in which leadership styles are being assessed.

Examples of items in the survey capturing leadership style (Bass & Avolio, 1993) are as follows:

“Talks enthusiastically about what needs to be accomplished”

“Gets me to look at problems from many different angles”

“Helps me to develop my strengths”

Respondents were provided with a response to a Likert scale ranging from 0, meaning “Not at all” to 4, meaning “Frequently, If not always” (see Appendix B). Permission has been given to use these items in this research (items are protected under copyrights laws).

Differences between Groups

In addition to the measurement variables suggested in the theoretical model (Figure 1), information was collected on different groups. That is, differences related to gender, levels of government in which the respondents were employed, and types of employment activities (i.e., maintenance, services, or management). The categories for levels of government and type of employment activities are relevant in the Mexican public sector context because of the fragmented structure of GMA. Moreover, because the social structure tends toward bias against women employees in Mexico, understanding the variation across gender is also appropriate.

For gender, female respondent was coded 1, while male was coded as 0. The level of government was coded as follows: if the respondent worked for the federal government, s/he
was coded 1; if the respondent was employed by state agencies, s/he was coded 2; and if the respondent worked for local governments, s/he was coded 3. Public employees’ main employment activity was coded as a categorical variable, that is, 1 when job classification was classified as maintenance, 2 for services, and 3 for supervisory/management.

Data Analysis

Data Preparation

For the data preparation in SEM, scholars warn about the need to resolve missing data, verification of normality distribution of the observed variables, and construct reliabilities and validity. Data preparation is also important in SEM for at least two reasons (Kline, 2011). First, the MLE requires the frequency distribution of variables to be normally distributed. Otherwise, an alternative estimation method is required. Second, the data problems, if unresolved, will lead to failure in reaching logical solutions and poor conversions. For example, missing data, if inadequately treated, may cause basically biased results. Furthermore, replacing data with the mean may cause reduction of the variance among the variables and/or increase the correlation coefficients.

Although several empirical studies have warned of several issues dealing with data preparation, in this study, the issues concerning missing data, multivariate normality, EFA, and reliability scores for latent variables were considered in the following ways: the missing data was resolved by using the multiple imputation method; the normality assumption was checked by conducting an evaluation of the skewness and kurtosis values; and the EFA was executed with the Principal Components method to ensure the underlying factors that explain the
correlation among a set of observed variables. Reliabilities of factors or latent constructs were ensured by calculating the Cronbach’s alphas for each construct and establishing goodness of fit criterion through CFA.

Missing Data

Missing data is an issue in social science; if unresolved, it will lead to bias when conducting inference statistics are conducted. According to McKnight et al., (2007), adequate management of missing data is important because of potential problems for reliability and validity. Missing data also affect statistical procedures such as the likelihood to reject the null hypothesis, even if the null hypothesis is false. That is, replacing missing values without knowing their patterns may cause biases in the results. Deleting the cases with missing data implies a smaller sample size and, consequently, smaller statistical power.

There are several ways to deal with missing data. In this research, the missing data problem was handled following the PASW 18 User’s Guide\textsuperscript{15}. First, the frequency of missing cases that were caused by incomplete survey items\textsuperscript{16} was examined, and the patterns of missing data were also analyzed. For example, variables were subject to missing data when respondents failed to complete at least one of the survey items. In the literature, the patterns of missing data have been classified by Rubin (1976) as three types of missing data: (1) missing completely at random (MCAR), (2) missing at random (MAR), and (3) missing not at random (MNAR). McKnight et al. (2007) also distinguish three types of missing data by examining the

\textsuperscript{15} At: http://www.helsinki.fi/~komulain/Tilastokirjat/IBM-SPSS-Missing-Values.pdf

\textsuperscript{16} McKnight et al. (2007) point out that amount is used in the literature indistinctively as number of subjects with missing data, missing cases for a particular variable, or the total number of missing observations for a data base.
variables (items in a survey), that is, “subjects randomly omit responses” (MCAR), “subjects omit responses that are traceable to other responses” (MAR), and “subjects fail to respond to incriminating items” (MNAR).

Second, a Little’s Chi-square statistic (Little, 1988) was performed to test whether data were missing in a completely random fashion. The null hypothesis, for the test, was that the missing data occurred completely at random and the $p$ value was set at a .05 significance level. If the $p$-value was smaller than .05, so the conclusion was to treat the missing data as having occurred, not by chance, but by systematic error. If there was a pattern and the missing data was not random, the pattern of the missing data must be determined in order to minimize potential bias and corrected using the appropriate technique.

There are two approaches to replace missing data: single imputation (e.g., replacing missing values with the mean) and multiple imputations (i.e., in the data replacing process this procedure takes into account both the individual and sample values). It is well supported in the literature that multiple imputation is considered superior to a single imputation because, for example, it is not sensitive to the type of missing data (i.e., MCAR, MAR, and MNAR). Given the distribution and patterns of missing data in this study, discussed further in the next chapter, a multiple imputation technique was implemented.

Multivariate Normality

The assumption of multivariate normality means that (1) all the univariate distributions are normal, (2) the joined distribution of any two variables is bivariate normal, and (3) all the bivariate scatterplots are linear and homoscedastic (Kline, 2011). If the assumptions are
violated, our results may be biased because the standard errors will be underestimated (Olsson, Foss, Troye, & Howell, 2000) and the multivariate non-normality will affect the Chi-square values in the SEM (Kline, 2011).

The multivariate non-normality can be assessed through univariate distributions. One way is to inspect visually or using the measures of skewness and kurtosis criteria to determine the normal distribution of the variables in the data set. The skewness indicates that the distribution is asymmetrical with respect to the normal distribution curve, while kurtosis indicates if the shape of the distribution is peaked or flat with respect to the normal distribution curve. Both indicators have been used to check for the non-normality assumption (Kline, 2011).

Although there is no general agreement on the threshold values for what should constitute a serious skewness problem, Kline (2011) argues that the absolute values of the skew index that are larger than 3 can be considered an extreme skewed distribution, and the absolute value of a kurtosis index larger than 20 is considered to be an extreme kurtosis value. Similarly, the work conducted by Curran, West, and Finch (1996) suggests that the frequency distribution of variables with skewness and kurtosis coefficients greater than 3 and 21, respectively, violates the normality distribution assumptions. The assumption of normality is particularly sensitive when the sample sizes are small (e.g., less than 50), but it is less sensitive as the sample size gets larger than 200 (Hair et al., 2006).

For the purpose of this study, based on the criterion set by Curran et al. (1996) and Kline (2011), a univariate skewness value of 2 and a kurtosis value of 7 were used as the acceptable threshold levels when assessing the normality assumption.
Exploratory Factor Analysis

An exploratory factor analysis (EFA) was performed in order to develop a set of theoretical constructs given multiple items specified in the survey instrument. The procedure was part of a purification mechanism, which selects the most important items capturing the theoretical constructs (i.e., public service motivation, organizational citizenship behaviors, and the perceptions of respondents regarding transformational leadership style and organizational performance). The procedure was not used to restrict the number of items to be extracted, nor was the procedure used to require a prior specified pattern of relationship between constructs. Nevertheless, the procedure allows us to separate the multiple items developed in the survey instrument into a single construct and thus eliminates those items that have poor communalities. The aim here was to produce a parsimonious model.

The criterion to assess whether a construct has been appropriately identified was done based on factor loading scores. The objective of the procedure was that, given a multiple item capturing the communalities of a construct, the strength of the relationship can be measured by the score of factor loadings. The term "factor loadings" refers to the correlation between the observable variables and the factors, and it is the main criterion used to define a particular factor. In addition, the squared factor loading indicates the percentage of variance of the observable data that is explained by the factor. Those constructs with loading weight higher than .6 were considered to have a strong factor loading and the construct (as a single variable) has communality derived from the multiple items.

Once the constructs had been determined, the procedures testing for reliability and validity of the constructs were performed. The reliability of the construct, which was based on
the assessment of the consistency of items within a single construct, was examined using Cronbach’s coefficient alpha. A large Cronbach’s alpha value (i.e., α) would indicate that the measures have a high reliability score. An acceptable or adequate value for alpha’s coefficient was set around .7 (Nunnally, 1978; Kline, 2011). The Cronbach’s alpha score also indicated the internal consistency of the items influenced by the latent construct.

The determinate factor, which can also be used as a measure of reliability, was calculated as one minus the proportion of total variance due to the random error (Kline, 2011). For example, if the coefficient α was equal to .7, then it was estimated that 30% (i.e., 1.00 - .7 = .3) of the total variance was due to the random error. Kline (2011) suggests that the reliability coefficients around.9, .8, and .7 have been considered to be “excellent,” “very good,” and “adequate,” respectively. However, the Cronbach's alpha value of less than .5 would mean that most of the variance represented by the coefficient had been caused by random errors and was thus unacceptable.

The validity of all the constructs was also assessed. The procedure, explained further below, was based on a confirmatory factor analysis (CFA), a basic analytical tool to evaluate construct validity. The procedure provided an indication of convergent (i.e., different items theoretically designed that are strongly interrelated) and discriminant validity (i.e., items from the survey developed for a theoretical construct that is different and not inter-correlated). According to (Brown, 2006), one of the strengths of CFA can be attributed to the ability of the procedure to estimate convergent and discriminant validity.

In the next section, the SEM methodology is described. The methodology consists of two parts: procedures to determine the measurement model and the structural model.
Structural Equation Modeling

The structural equation modeling (SEM), with maximum likelihood estimation (MLE), was used to test simultaneously the relationships (direct and indirect) between several independent and dependent latent variables (Gefen, Straub, & Boudreau, 2000). The method of analysis has also been named covariance structure analysis, covariance structure modeling, and analysis of covariance structures or latent variable analysis (Kline, 2011; Hair et al., 2006).

The procedures involved in SEM were implemented in two parts. First, the technique involved the development of a measurement model, which included the identification of latent constructs (e.g., assessments of factor loadings, errors in variances and co-variances, factor variances, and co-variances). Second, the technique involved the development of a structural model, which measured the direct and indirect relationships among latent variables. This was done after conducting a confirmatory factor analysis (CFA). While the CFA established the patterns on how each observed variable loads in specific latent variables, the analysis did not produce direct or indirect effects connecting the various constructs of interest (Garson, 2011). Subsequently, using information developed from the CFA, a structural model was developed. In addition, a multi-group analysis was conducted to assess the differences across categorical variables such as gender, the main employment activity of respondents, and the level of government in which the respondents were employed.

Confirmatory Factor Analysis

At the most general level, a confirmatory factor analysis (CFA) is a measurement model that deals with latent variables and their observed variables. Before developing the estimation
of parameters with CFA, it is necessary to check if the constructs of interest are identified. Kline (2011) argues that a construct is identified if it meets the following conditions. First, the number of free parameters is less or equal to the number of observed variables, where the degrees of freedom ($df$) do not get a negative value. For example, a negative value suggests the construct with observed variables is under-identified because the number of parameters to be estimated is greater than the observed parameters (i.e., in this case $df = -1$). Second, each construct must have a scale. The most common way to accomplish the scale requirement is by using the value 1 for a factor loading. The same procedure would be applied for each construct (Byrne, 2010; Kline, 2011).

In this study, the parameters of the latent constructs were estimated using the maximum likelihood estimation (MLE) embedded in CFA. The main goal of using MLE was to estimate the parameters that maximized the probability to replicate the observed measures (Brown, 2006). The MLE process was executed with the computer program AMOS 18. The process involved iterative checks, which were performed until the best parameters were estimated and the minimum difference between the matrix of observed data and the estimated matrix from CFA was obtained. The process also involved checking for convergence of the structural model. Of course, there were cases when the model failed to converge due to under-identified models and the violation of the normality assumption (Kline 2011). These were resolved accordingly and are discussed further below.

In order to assess whether the CFA model fit the data, several goodness of fit indices were used: (1) relative Chi-square ($\chi^2$) statistics, (2) root mean square error of approximation (RMSEA), and (3) comparative fit or incremental indices (CFI). The decision to use these indices
was consistent with previous studies. There have been several categories to inform the researcher whether the structural model has fitted the data well. Brown (2006), for example, argues that model fit indices can be classified into three categories: (1) absolute fit indices, (2) fit adjusting for model parsimony indices, and (3) comparative or incremental indices. Brown (2006) also suggests at least one index from each category must be reported because the indices provide different information about model fit. In addition, scholars have reported the goodness of fit for the standardized root mean square residual (SRMR), adjusted goodness of fit index (AGFI), and the normalized chi-square.

The first category used to identify the latent constructs was based on the Chi-square ($\chi^2$) statistics. The $\chi^2$ basically took the difference between the theoretical model and the observed data by testing “the null hypothesis that the estimated variance-covariance matrix deviates from the sample variance-covariance matrix only because [of] the sampling error” (Baumgartner & Homburg, 1996, p. 149). If the result of this test was statistically significant, it meant that there had been a large enough difference between the structural model and the observed data. However, if the difference was found not to be statistically significant, it was concluded that the structural model must be accepted. However, the method of $\chi^2$ statistics has a well-known problem of being sensitive to the sample size (Bagozzi & Yi, 1988; Hair et al., 2006). As the sample size increased, so too would the $\chi^2$ value; hence, the difference between the hypothesized model and data will yield a statistically significant result. Consequently, the results would reject the model that may have an acceptable fit to the data. In order to overcome this problem, other fit indices, such as the normed Chi-square ($\chi^2/df$) statistics (Bagozzi & Yi, 1988; Hair et al., 2006), were used in this study. A normed Chi-square value of
less than 3 was used as the cutoff point to assess an acceptable model fit (Hayduk, 1987). Other indices described further below have also been used to assess the goodness of fit of the hypothesized model.

The second category used in this study was based on the logic of a parsimony correction. Here, the root mean square error of approximation (RMSEA) was used, which took into account the error of approximation index by evaluating the extent to which the model had fitted the observed data well (Brown, 2006). Brown also suggests that the index can be seen as the opposite to the Chi-square statistics in the sense that the test determines whether the structural model has exactly emulated the original data. The cutoff point for RMSEA was set at less than or equal to .05 (for a good model fit). Another index considered by this study was the RMSEA, where the confidence intervals were included. The minimum value was set at the 90% level. For RMSEA, when we had a value that was larger or equal to .10, the structural model was rejected (the minimum values should not be less than .08).

The third criterion used in this study was based on the comparative fit indices (CFI). The underlying idea of this index is based on the analogy between the structural model and a baseline model (also called the null model) (see Kline, 2011). The assumption of the null model was that the population covariances among the observed variables were set at zero\(^{17}\). If the variables in the null model are unrelated, the value for the Chi-square (\(\chi^2\)) statistics will be larger than the structural model, suggesting a marked difference between the hypothesized and the null models. Following Kline (2011), if the \(\chi^2\) value obtained by the hypothesized model

\(^{17}\) The comparative fit indexes have been criticized because the zero covariance is implausible. AMOS (software to conduct SEM analysis) allows the null model with covariances among the observed variables to be equal rather than zero, which is more realistic (Kline, 2011).
is less than the null model’s Chi-square value, the conclusion is that the model has an improvement compared to the null model. Otherwise, the hypothesized model is regarded to have a poor model fit. The decision was also based on Brown's argument (2006). When the cutoff point for the CFI was found to be below .9, the hypothesized model was rejected. If the CFI value fell between .9 and .95, the model was accepted to have a good fit to the data. If the CFI was equal to or larger than .95, the model was regarded as having an excellent model fit.

The study also employed another criterion to determine the goodness of fit of the model: the standardized root mean square residual (SRMR) and the adjusted goodness of fit index (AGFI). The results of the analysis were based on absolute fit indices. For example, when SRMR was used, the analysis “represents the average discrepancy between the sample observed and hypothesized correlation matrix” (Byrne, 2010, p. 77). If the obtained SRMR value was .01, the structural model was regarded as having explained the correlations within an average error of .01. The cutoff value for SRMR index was set at .05. As for the AGFI, if the model were to be regarded as an acceptable model that fits the data, the threshold for the AGFI would need to be set at a value greater than .9. The AGFI is an extension to the goodness of fit index (GFI). According to Raykov and Marcoulides (2006), the GFI can be considered as the proportion of variance and covariance explained by a model.

Second Order Confirmatory Factor Analysis

A second-order confirmatory factor analysis was also performed, especially for constructs that relied on previously assessed first-order CFA. The analysis examined whether a higher order construct also had a high validity score when we included two or more secondary
factors to come up with the higher order construct. For example, organizational citizenship behavior was made up of two factors (i.e., OCB to individual and OCB to organization). In order to assess a second order construct validity, the same criteria for conducting the first order CFA were implemented.

Structural Model

An SEM, as established by the hypothesized model, was implemented at the final stage of the analysis. The assessment of the model fit was performed the same way as the criteria used to assess the goodness of fit, discussed in the last section. All the coefficients in the SEM model were reported in terms of standardized coefficients in order to compare the strength of the latent variables. The decision was also based on different measurement scales used in this study.

Multi-Group Analysis

A multi-group analysis for the same hypothesized model was conducted in order to investigate the effect of categorical variables (i.e., gender, level of government worked for, and main activity). The analysis allowed us to simultaneously examine the difference between two separate groups. A two-step approach was used as suggested by Jöreskog and Sörbom (2001). First, it was assumed that the observed measures were invariant across groups; then, an estimation of covariance matrix for each group and overall Chi-square values for the groups involved in the analysis were performed (to set up the values for the null hypothesis). Second, it was assumed that at least two parameters from the structural model were not equivalent.
across the groups (i.e., the alternative hypothesis). The objective was to test whether the
difference between two groups was indeed based on the difference of the Chi square statistics.
If the $p$-value difference was relatively small (e.g., less than $0.01$), we rejected the null
hypothesis. In other words, there was evidence to suggest that there were variations across
the two groups. The model fit indices for each analysis and their respective sample size were
also reported.

The next chapter presents the procedures used in dealing with the observed data
gathered among public employees in the Guadalajara metropolitan area.
CHAPTER 4

RESULTS OF ANALYTICAL PROCEDURES

Chapter 4 presents the analytical procedures used to examine the dataset collected among 1,016 public employees in the Guadalajara metropolitan area. The objectives are twofold. The first is to present the techniques in correcting for missing data before conducting exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Both analyses were implemented as part of the procedures in order to perform the final stage of the structural equation modeling (SEM). The second is to present the results of the analytical procedure related to a multi-group analysis. The analysis is crucial when determining the variations across three categories: (1) gender, (2) levels of government in which respondents were employed, and (3) the main employment activities of respondents. In order to determine the measurement model, the procedures used to estimate the covariance matrix and maximum likelihood of estimation (MLE) techniques are also reported. All the analyses were performed using the predictive analytics software (PASW) 18 and analysis of moment structures (AMOS) 18.

Data Descriptions

Survey Respondents

A total of 1,500 self-administered questionnaires were distributed to public sector employees in the metropolitan area of Guadalajara. The surveys were placed in 32 public organizations at the three levels of government (see Appendix A). A total of 1,016 surveys were completed and returned, representing a 67.7% response rate. Table 3 shows that the majority of responders were male (i.e., 52.8%) and about 45.6% female. About 1.7% of the respondents
refused to answer the gender item. While some of the respondents had high school diplomas, most reported that they had earned a bachelor’s degree education (i.e., 59.1%).

Table 3

*Characteristics of Survey Respondents (N=1,016)*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>536</td>
<td>52.8</td>
</tr>
<tr>
<td>Female</td>
<td>463</td>
<td>45.6</td>
</tr>
<tr>
<td>Missing</td>
<td>17</td>
<td>1.7</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary School</td>
<td>23</td>
<td>2.3</td>
</tr>
<tr>
<td>Middle School</td>
<td>70</td>
<td>6.9</td>
</tr>
<tr>
<td>High school</td>
<td>223</td>
<td>21.9</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>600</td>
<td>59.1</td>
</tr>
<tr>
<td>Master degree</td>
<td>74</td>
<td>7.3</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td>10</td>
<td>1.0</td>
</tr>
<tr>
<td>Missing</td>
<td>16</td>
<td>1.6</td>
</tr>
<tr>
<td>Level of Gov.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>139</td>
<td>13.7</td>
</tr>
<tr>
<td>State</td>
<td>420</td>
<td>41.3</td>
</tr>
<tr>
<td>Municipal</td>
<td>429</td>
<td>42.2</td>
</tr>
<tr>
<td>Missing</td>
<td>28</td>
<td>2.8</td>
</tr>
<tr>
<td>Employment Activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td>503</td>
<td>49.5</td>
</tr>
<tr>
<td>Operation</td>
<td>251</td>
<td>24.7</td>
</tr>
<tr>
<td>Administrative</td>
<td>227</td>
<td>22.3</td>
</tr>
<tr>
<td>Missing</td>
<td>35</td>
<td>3.4</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part time</td>
<td>314</td>
<td>3.9</td>
</tr>
<tr>
<td>Full time</td>
<td>652</td>
<td>64.2</td>
</tr>
<tr>
<td>Missing</td>
<td>50</td>
<td>4.9</td>
</tr>
</tbody>
</table>

The majority of respondents worked for the state and municipal governments. Only 13.7% of the respondents were employed by the federal government. More than half of the respondents were employed in activities linked to public services (i.e., they dealt face-to-face with citizens) and most (64.2%) worked full-time.

Additionally, Table 4 shows that respondents in the sample have an average age of 36 (SD=10.1) years old. The majority of the respondents were aged between 26 and 46 years old.
The average years of work experience in the public sector was approximately 10 years ($SD=7.9$); and the average number of years that they had been working in their current organization was about 7 ($SD=7.1$) years.

Table 4

Additional Information of Survey Respondents

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>$SD$</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>993</td>
<td>36</td>
<td>10.1</td>
<td>18</td>
<td>65</td>
</tr>
<tr>
<td>Years working in public sector</td>
<td>883</td>
<td>9.7</td>
<td>7.9</td>
<td>0</td>
<td>46</td>
</tr>
<tr>
<td>Years working in current organization</td>
<td>986</td>
<td>7.4</td>
<td>7.1</td>
<td>0</td>
<td>41</td>
</tr>
</tbody>
</table>

Missing Data

Table 5 shows the frequency distribution of missing data by survey items. About 3% of the total items in the survey were not completed or left missing by the respondents. Only five items (i.e., PSM4, RESP, PSM5, TLS5, and PSM2) have missing values above 3 percent. The item PSM4, for example, has the highest frequency of missing data (4.7%). As shown in Figure 4, when examined closely, all variables have at least one missing value. While the majority of the respondents completed all the questions in the survey, about 33.6% did not. The percentage of missing values due to incomplete response to all items represents only 1.2% of the total possible responses. On average, respondents generally failed to complete at least two of the 55 items in the survey.

The distribution of variables on respondents’ characteristics (not shown here) has a minimal amount of missing data, that is, less than 5% of the total cases. The variable that sought to gather information regarding the number of years that respondents worked for the
public sector, i.e., “Work for Public Sector,” has about 13% missing values. The pattern was less of a concern, as explained further below, when a multi-group analysis was conducted.

Table 5

*The Frequency Distribution of Missing Data*

<table>
<thead>
<tr>
<th>Missing</th>
<th>N</th>
<th>Percent</th>
<th>Valid N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSM4 I unselfishly contribute to my community.</td>
<td>48</td>
<td>4.7%</td>
<td>968</td>
<td>3.5</td>
<td>1.3</td>
</tr>
<tr>
<td>RESP Main responsibility</td>
<td>35</td>
<td>3.4%</td>
<td>981</td>
<td>1.7</td>
<td>.8</td>
</tr>
<tr>
<td>PSM5 Meaningful public service is very important to me.</td>
<td>34</td>
<td>3.3%</td>
<td>982</td>
<td>4.0</td>
<td>1.2</td>
</tr>
<tr>
<td>TLS5 Instills pride in me for being associated with him/her</td>
<td>33</td>
<td>3.2%</td>
<td>983</td>
<td>2.7</td>
<td>1.1</td>
</tr>
<tr>
<td>PSM2 The “give and take “of public policy-making does not appeal</td>
<td>32</td>
<td>3.1%</td>
<td>984</td>
<td>2.7</td>
<td>1.3</td>
</tr>
</tbody>
</table>

*Items with missing values less than 3% are not reported.

Figure 4. Description of missing values.

Although the items listed in Table 5 suggest the number of missing values was minimal\(^{18}\), i.e., less than five percent (Kline, 2011), further analysis was needed to detect for additional

---

\(^{18}\)The variables with more than 15% of missing values and the cases with more than 50% of missing values are suggested to be excluded from a final analysis (Hair et al., 2006).
patterns that might affect the final analysis. In order to detect for patterns, a separate-variance t test was conducted. The approach tested for the differences of variance between items “with” and “without” missing values and then determined whether the differences had an effect on the other items in the survey. Let us take the item PSM4 “I unselfishly contribute to my community”, which has the highest number of missing cases (i.e., 4.7 percent), as an example. When the values for the survey item PSM4 were not reported by the respondents, the average score on the PSM2 item was reported at 2.31 (on a 5-point scale with a minimum score of 1 and maximum of 5). However, when the values for PSM4 were present, the mean score for the PSM2 item was 2.71. The difference of means under these two conditions was statistically significant (t = 2.2, p < .05), suggesting that the data were not missing completely at random (MCAR). Also, when the values for the PSM4 item were missing, the average score for the OCB8 item was reported at 3.98; but when the values for the PSM4 were present, the average score of OCB8 item decreased to 3.6. The difference was statistically significant (t = -2.3, p < .05).

A further analysis using a separate-variance t test was also conducted for the other items presented in Table 5. The analysis did not suggest an obvious pattern. The missing values found in these items did not have an effect on the other variables. A similar analysis was conducted to determine the patterns of missing values for the differences between gender, the main employment activities, and the employment at various levels of government. The analysis, conducted separately on each of the variables, produced no systematic pattern.

In order to statistically test whether the data were missing completely at random for PSM4, the Little’s Chi-square test was performed (Little, 1988). In other words, the data were
missing completely at random (MCAR) if the missing values were not dependent on the values of the other variables. The p value was statistically significant at a .05 level. If the p-value were lower than the .05 level, then the null hypothesis (or status quo) was rejected. In the case of PSM4, the Little's MCAR test yielded the following results: Chi-Square = 9327.484, df = 8593, p = .00. Thus, it can be concluded that the data were not missing completely at random for PSM4.

Given that the patterns of missing data were not random, the literature suggests that it would be inappropriate to use a listwise deletion technique or a singly imputation to replace the missing values. Either technique will lead to biased estimations due to the loss of information or the constant replacement respectively. The term constant replacement means that every missing datum will be replaced by the mean. The appropriate method to minimize the problem of missing values would be to use the multiple imputation method, which consists of an interactive calculation process that considers both the individual and sample values to replace the missing data (McKnight, McKhinght, Sidani, & Figueredo, 2007).

Table 6

*Frequency Distribution of Categorical Variables after Multiple Imputations (N=1,016)*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>546</td>
<td>53.7</td>
</tr>
<tr>
<td>Female</td>
<td>470</td>
<td>46.3</td>
</tr>
<tr>
<td><strong>Employment related activity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td>515</td>
<td>50.7</td>
</tr>
<tr>
<td>Operation</td>
<td>270</td>
<td>26.6</td>
</tr>
<tr>
<td>Administrative</td>
<td>231</td>
<td>22.7</td>
</tr>
<tr>
<td><strong>Govt. level employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>143</td>
<td>14.1</td>
</tr>
<tr>
<td>State</td>
<td>439</td>
<td>43.2</td>
</tr>
<tr>
<td>Municipal</td>
<td>434</td>
<td>42.7</td>
</tr>
</tbody>
</table>
To ensure the replicability of the final results, a fixed value of “20112012” was assigned as the random seed. The number of imputations, executed through the automatic imputation method in PASW18, was assigned at 5. Table 6 shows the count frequency for the categorical variables after running the multiple imputation method.

Testing For Normality Assumption

The normality assumption was examined by using the criteria of skewness and kurtosis absolute values (Curran, West, & Finch, 1996). The criteria implemented to check for normality assumption were based on the following: if the corresponding (skewness, kurtosis) values were (0, 0), the frequency of distribution of the data was regarded as being normal; if the corresponding criteria (skewness, kurtosis) values were (2, 7), the distribution was regarded as having a moderately non-normal distribution; and if the values were (3, 21), the distribution was regarded as having a severely non-normal. Based on these criteria, none of the frequency distributions for each of the variables violated the normality assumption. The highest item’s absolute values for skewness and kurtosis were 2 and 7 respectively (see Appendix C), which are lower than the specified threshold levels of 3 and 21. In addition, the frequency distribution for each observed variable was checked for outliers through scatter plots, and the correlation among variables was also performed to determine the level of multicollinearity. None of these issues was found.

Exploratory Factor Analysis

An exploratory factor analysis (EFA) was conducted to determine the number of factors
that best represent the observed variables\textsuperscript{19} in the data set. These observed variables or measured responses have been developed and specified theoretically in the previous Chapters.

There were several reasons to conduct the EFA. First, the analysis provided information on the measurement reliability of the constructs. Second, based on the factor loading scores of each observed response, the analysis validated whether the previously developed scales actually fit the observed data. That is, if a list of answered-items, when analyzed together, provides a strong indicator that it has been influenced by the theoretical constructs of interest (i.e., the latent variables), then the items that made up the observed variables, when analyzed together (factor loading), must also produce a coefficient with an absolute value above .6 in order to validate the reliability of the latent variable. A similar decision was made for a cross-loading coefficient with an absolute value lower than .3. These criteria were based on Hair et al.’s (2006) arguments that standardized factor loading should be at least .5 or higher, and commonly .7 or higher. In order to avoid under-identified problems, only factors with at least three items were considered acceptable in this study.

Another consideration when conducting the EFA was the correlations between the survey items. While a high correlation can be a problem (e.g., it increases the $\chi^2$ value in confirmatory factor analysis), a lower correlation meant that these items were unlikely to be influenced by the same factor. If the items were correlated with a coefficient that is above .7, they were considered to be highly correlated (Hair et al., 2006). In the presence of a high correlation coefficient, one of the items was removed. For example, it was observed that items POP5 and POP4 exceeded the cutoff value ($r = .77$), where item POP5 was excluded from the

\textsuperscript{19} Note: observed variables or observed measures or items and constructs or factors or latent variables are interchangeable.
subsequent analyses. In addition, the removal of this item does not affect the theoretical construct since it still has the minimum (3) items which represent the concept of public organizational performance.

The EFA was conducted by using the extraction method of principal components. The results of the KMO analysis and Bartlett’s test are presented in Table 7. These results show strong support that factoring, which is a set of factors that best represent the data set, is allowed among the 52 observed variables. The overall Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy index of .93 suggests that the correlation matrix of the observed variables is able to perform factoring. A highly significant Bartlett’s Test of Sphericity statistic ($p<$ .001) rejects the null hypotheses that the correlation matrix is an identity matrix, which is inappropriate for factoring.

Table 7

*KMO and Bartlett’s Test for factoring*

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>.93</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td></td>
</tr>
<tr>
<td>Chi-Square</td>
<td>21193.81</td>
</tr>
<tr>
<td>df</td>
<td>1275</td>
</tr>
<tr>
<td>Significance</td>
<td>.000</td>
</tr>
</tbody>
</table>

The output of EFA (Appendix D) shows that seven out of nine factors\(^{20}\) met the above mentioned conditions. The nine factors explained 54.91% of the total variance (Appendix E). The seven factors characterized the constructs for this study: they are public organizational performance, organizational citizenship behavior to organization, organizational citizenship

\(^{20}\) The factors explained 54.9% of the total variance.
behavior to individuals, commitment to the public interest, compassion, attraction to public policymaking, and transformational leadership.

Public Organizational Performance

The concept of public organizational performance (POP) was operationalized according to the survey items designed to capture the ideas of organizational effectiveness and responsiveness. The notions of effectiveness and responsiveness originally consisted of three items each (6 items in total). However, based on the EFA, only four items adequately captured the concept of public organizational performance21 (Table 8). This means that, for the responders of the survey, the concepts of effectiveness and responsiveness both were interpreted as somewhat similar to the idea of public organizational performance.

Table 8

Public Organizational Performance ($\alpha = .89$)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Standardized Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>POP4</td>
<td>Your organization is effective in moving toward the fulfillment of its mission.</td>
<td>.81</td>
</tr>
<tr>
<td>POP3</td>
<td>Your public organization is making a sincere effort to support those residents who need help.</td>
<td>.80</td>
</tr>
<tr>
<td>POP2</td>
<td>Your organization responds to public requests quickly and efficiently.</td>
<td>.80</td>
</tr>
<tr>
<td>POP1</td>
<td>Your organization seriously responds to public criticism and suggestions for improvement.</td>
<td>.77</td>
</tr>
</tbody>
</table>

21 As mentioned earlier, for the latent construct of public organizational performance (POP), two items were dropped from the final analysis. Item POP5 was excluded because of a high correlation with item POP4. Item POP6 was dropped because of the construct’s reliabilities issues. That is, by deleting POP6 the Cronbach’s alpha increased from .886 to .887 with .001 increments. In order to enhance the internal reliability of the underlying construct for POP and to avoid further problems when conducting SEM, POP6 was dropped from the final analysis. The construct POP now has 4 items, which are adequate to measure the theoretical construct.
The notions of organizational effectiveness and responsiveness were not regarded as a discrete concept. Based on the EFA, the results in Table 8 indicate that the four items measuring the concept of public organizational performance have relatively strong factor loadings i.e., ranging from .77 to .81. The Cronbach’s alpha of .89 indicated there was a high internal consistency of the observed variables.

Organizational Citizenship Behaviors

The underlying construct of organizational citizenship behavior (OCB) consists of 16 items. Based on the EFA, the observed responses were influenced by two factors or dimensions of OCB: one dimension was the organizational citizenship behaviors related to the organization (OCBO), while the other was the organizational citizenship behaviors related to the individuals (OCBI). These factors were derived from the theoretical operationalization of OCB. The final analysis for OCBO took into account only 5 items, which produced a Cronbach’s alpha value of .86. The final analysis for OCBI also included 5 items, which had a Cronbach’s alpha value of .79 (see Table 9).

The decision to exclude 6 other items from the final analysis were based on the followings reasons: two of the observed measures or items from the survey, OCB9 (“Attend functions that are not required but that help the organizational image”) and OCB5 (“Show genuine concern and courtesy toward coworkers, even under the most trying business or personal situations”) did not meet the criterion of factor loading (i.e., > .6). Consequently, they were excluded from further analysis in order to avoid issues of cross-loading that affected the validity of the underlying construct (i.e., poor convergent and discriminate validity). The other
4 observed measures (i.e., OCB10, OCB11, OCB3, and OCB8) were also excluded from the final analysis because they affected the Cronbach's alpha reliability score. The original Cronbach’s alpha value for OCB0, before excluding the items, was .88; and after the exclusion of two of the observed measures (i.e., OCB10 and OCB11), the alpha value decreased to .86. Although the value was high with a marginal loss of internal consistency (i.e., .02), the exclusion actually enhanced the model's parsimony and avoided further problems when the final stage of the SEM was implemented. The same argument can be presented for the observed items OCB3 and OCB8, which decreased the alpha values from .82 to .79.

Table 9

Organizational Citizenship Behavior

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Standardized Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCB16</td>
<td>Demonstrate concern about the image of the organization.</td>
<td>.76</td>
</tr>
<tr>
<td>OCB14</td>
<td>Express loyalty toward the organization.</td>
<td>.74</td>
</tr>
<tr>
<td>OCB12</td>
<td>Show pride when representing the organization in public.</td>
<td>.70</td>
</tr>
<tr>
<td>OCB15</td>
<td>Take action to protect the organization from potential problems.</td>
<td>.68</td>
</tr>
<tr>
<td>OCB13</td>
<td>Offer ideas to improve the functioning of the organization.</td>
<td>.66</td>
</tr>
<tr>
<td>OCB6</td>
<td>Give up time to help others who have work or non-work problems.</td>
<td>.72</td>
</tr>
<tr>
<td>OCB2</td>
<td>Willingly give your time to help others who have work-related problems.</td>
<td>.68</td>
</tr>
<tr>
<td>OCB7</td>
<td>Assist others with their duties.</td>
<td>.67</td>
</tr>
<tr>
<td>OCB1</td>
<td>Help others who have been absent.</td>
<td>.67</td>
</tr>
<tr>
<td>OCB4</td>
<td>Go out of the way to make newer employees feel welcome in the work group.</td>
<td>.61</td>
</tr>
</tbody>
</table>
Public Service Motivation

The underlying latent construct for public service motivation (PSM) was based on 3 dimensions or factor components: (1) commitment to the public interest (PI), (2) compassion (CO), and (3) attraction to public policy making (PP). The EFA's output confirms these three dimensions, influencing 10 of the observed responses. All the observed responses met the required factor loading criteria (i.e., > .6). The results of EFA are presented in Table 10.

Table 10

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Standardized Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSM7</td>
<td>I consider public service my civic duty.</td>
<td>.69</td>
</tr>
<tr>
<td>PSM6</td>
<td>I would prefer seeing public officials do what is best for the whole community even if it harmed my interests.</td>
<td>.68</td>
</tr>
<tr>
<td>PSM5</td>
<td>Meaningful public service is very important to me.</td>
<td>.68</td>
</tr>
<tr>
<td>PSM4</td>
<td>I unselfishly contribute to my community.</td>
<td>.61</td>
</tr>
<tr>
<td>PSM10</td>
<td>I have little compassion for people in need who are unwilling to take the first step to help themselves.</td>
<td>.75</td>
</tr>
<tr>
<td>PSM8</td>
<td>It is difficult for me to contain my feelings when seeing people in distress.</td>
<td>.68</td>
</tr>
<tr>
<td>PSM9</td>
<td>I am often reminded by daily events about how dependent we are on one another.</td>
<td>.63</td>
</tr>
<tr>
<td>PSM2</td>
<td>The “give and take “of public policy-making does not appeal</td>
<td>.80</td>
</tr>
<tr>
<td>PSM3</td>
<td>I don’t care much for politicians.</td>
<td>.71</td>
</tr>
<tr>
<td>PSM1</td>
<td>Politics is a dirty word.</td>
<td>.70</td>
</tr>
</tbody>
</table>

The reliabilities of each of the dimensions showed a somewhat mixed result. For example, the PI and CO dimensions barely met the set threshold of α value, which is above .7, while the Cronbach's alpha reliability score for the dimensions for PP was only .63. Although
the Cronbach’s alpha reliability score was just above the .6 level, scholars suggest that this value is still acceptable because of the diversity of the psychological constructs (Kline, 2011).

Transformational Leadership Styles

The underlying construct of the transformational leadership styles (TLS) has been argued to influence four observed responses (see Table 11). The factor loadings for all the observed responses were greater than .6 and thus were considered as demonstrating a strong correlation between the observed variable and the factor (Hair, Black, Babin, Anderson, & Tatham, 2006).

Table 11 presents the results from the EFA on the TLS. Note that Table 11 presents only one out of five original dimensions of leadership styles. Although there are different types of transformational leadership styles, the dimension most important tends to be the “inspirational leadership” element of the transformational leaderships, that is, the ways the leaders motivate their followers within the public sector. For example, TLS6 (“Talks enthusiastically about what needs to be accomplished”) and TLS14 (“Articulates a compelling vision of the future”) items described in the table highlight the importance for leaders, in the context of Mexican public services, to inspire their subordinates. Only one item was not listed in Table 11 because of copyrights laws.

---

22 From the EFA’s output (Appendix D), the original construct of TLS was made up of 5 items. The Cronbach’s alpha value of .82 indicates a high internal validity of these items. However, by the deletion of item TLS8, the alpha coefficient decreased from .82 to .81. Because the Cronbach’s alpha score is still somewhat high and for a parsimony consideration, TLS8 was excluded from future analysis.
Table 11

Transformational Leadership Style

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Standardized Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLS6</td>
<td>Talks enthusiastically about what needs to be accomplished</td>
<td>.74</td>
</tr>
<tr>
<td>TLS7</td>
<td>Specifies the importance of having a strong sense of purpose</td>
<td>.73</td>
</tr>
<tr>
<td>TLS14</td>
<td>Articulates a compelling vision of the future</td>
<td>.68</td>
</tr>
<tr>
<td>TLS4</td>
<td>---purposely left blank for copyrights reasons, only three items of the scale are allowed to be displayed---</td>
<td>.66</td>
</tr>
</tbody>
</table>

Measurement Model

While the exploratory factor analysis (EFA) identifies the number of latent constructs, given the number of observed measures, the analysis did not specify whether the underlying constructs (identified through EFA) were actually influencing the observed responses in a predicted way. In this section, the technique for using the confirmatory factor analysis (CFA) is reported. The aim of the analysis was to establish the conceptual soundness of the latent constructs before implementing a structural equation modeling (SEM). Because the final results of the SEM were dependent on the reliabilities of the underlying constructs, “the unique variances or reliabilities of multiple indicators for latent constructs are tested first through the CFA” (Schreiber et al., 2006, p. 335).

The measurement model of SEM is what the literature commonly refers to as the CFA. This measurement model establishes the number of unobserved variables (latent constructs), how the observed variables are associated with the latent constructs, and the relationship between indicator errors (Brown, 2006). The model performs a statistical procedure that
examines the relationships among the hypothesized latent constructs and tests them for their construct validity. The construct validity is indicated by convergent and discriminant validity (Kline, 2011). The idea behind the convergent and discriminant validity is that they involve the examination of observed measures against each other. To establish the convergent validity, the observed measures are theorized to be closely related and then tested to verify if they are, in fact, related. On the other hand, for establishing discriminant validity, a set of observed measures of a latent construct is hypothesized to be not related to other observed measures of other latent constructs. As noted by Hair et al. (2006, p. 776), the basic idea of construct validity “is the extent to which a set of measured items actually reflects the theoretical latent construct those items are designed to measure.”

The estimation of the CFA models for the latent variables (i.e., POP, PSM, OCB, and TLS) was performed as follows: first, to examine the validity of an individual latent construct, a 1st-order CFA was implemented, and when necessary, some adjustments were made according to the modification indexes. This was to ensure an adequate validity of the constructs. The second step implemented the 2nd-Order CFA, which examined the overall construct validity (i.e. discriminant and convergent validity). The covariance matrix was used as input data, and the maximum likelihood method of estimation (MLE) was performed. The criteria used to assess the construct validity were based on the following fit indices cutoffs: goodness of fit indices (i.e., bigger is better), AGFI > .90, and CFI > .95. The badness of fit indices (i.e., smaller values are preferred) were also used: $\chi^2/df < 3$, RMSEA < .05, and SRMR < .05. The following analysis was performed in AMOS 18.

Table 12 summarizes the results of the measurement model and presents the test
diagnostics results based on an SEM. In the following sections, the procedures explaining the development of the constructs are presented in detail. In general, the results supported the construct validation in the sense that all of the latent constructs, as hypothesized, met the goodness of fit threshold requirements. That is, the goodness of model fit indices met the thresholds requirements ($\chi^2/df < 3$, AGFI > .90, CFI > .95) and the badness of fit indices threshold levels (RMSEA < .5, and SRMR < .5). Note that two of the latent constructs (i.e., OCBs that were related to individuals and compassion) had perfect goodness of fits. Both of these latent constructs were just-identified, meaning that the model has just enough degrees of freedom to estimate all the free parameters involved (Hair, Black, Babin, Anderson, & Tatham, 2006).

Table 12

Results Summary: Measurement Model and Factor Structure Diagnostics

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Factor Structure Diagnostics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>First Order CFA</td>
<td></td>
</tr>
<tr>
<td>Public Organizational Performance</td>
<td>.32</td>
</tr>
<tr>
<td>OCBs Related to Organization</td>
<td>3.53</td>
</tr>
<tr>
<td>OCBs Related to Individuals</td>
<td>Perfect Fit</td>
</tr>
<tr>
<td>Public Service Motivation: Public Interest</td>
<td>2.46</td>
</tr>
<tr>
<td>Public Service Motivation: Compassion</td>
<td>Perfect Fit</td>
</tr>
<tr>
<td>Transformational Leadership</td>
<td>1.87</td>
</tr>
<tr>
<td>Second Order CFA</td>
<td></td>
</tr>
<tr>
<td>Organizational Citizenship Behavior</td>
<td>48.16</td>
</tr>
<tr>
<td>Public Service Motivation</td>
<td>22.80</td>
</tr>
<tr>
<td>Thresholds</td>
<td>&lt;3</td>
</tr>
</tbody>
</table>

Public Organizational Performance

To assess the validity of the construct of public organizational performance (POP), a CFA was performed. The construct, which consisted of four observed measures, was obtained from
the earlier exploratory factor analysis (EFA). First, the CFA was executed and produced the following results: $\chi^2 = 3.57$, $\chi^2/df = 15.29$, AGFI = .922, CFI = .99, RMSEA = .12 and SRMR = .02. The result obtained for the $\chi^2/df$ and RMSEA suggested a poor model fit. However, all the standardized regression weights for the four items of POP scale were statistically significant at $p < .001$. In addition, all the standardized factor loadings yielded above the threshold level of .6.

In order to improve the model fit, the modification index technique was implemented as proposed by Jöreskog and Sörbom (1993). The procedures produced an acceptable model fit, which is explained below.

According to Jöreskog and Sörbom (1993), the constrained parameter$^{23}$ in the model can be calculated based on a modification index$^{24}$ which “…measures how much Chi-square is expected to decrease if this particular parameter is set free and the model is re-estimated” (p.127). The process was executed by adding a path in the model. The larger the modification index, the better the overall model fit will be if that path is added to the model (Kline, 2011). For instance, by adding to the baseline model a path between POP3 and POP4 errors (i.e., a modification index of 16.35) and then re-estimating the model (Figure 5), the re-specified model showed an improvement in model fit i.e., $\chi^2 = .32$, $\chi^2/df = .32$, AGFI = .99, CFI = 1, RMSEA = 0, and SRMR = 0. All of these indices were greater than the threshold values.

Figure 5 shows the path analysis to test the credibility of the latent POP variable i.e., by

$^{23}$ According to Jöreskog and Sörbom (2001, p. 3), “Fixed parameters (assigned specific values), constrained parameters (unknown but equal to one or more other unknown parameters), [and] free parameters (unknown and not constrained to be equal to other parameters).”

$^{24}$ The idea behind the modification indexes is that it allows a variable to be dropped or a path added as part of the estimation. It derives “the best indicators of latent construct prior to testing a structural model” (Schreiber et al., 2006, p. 325). However, as suggested by the literature, efforts to modify or change a factor must be justified theoretically; otherwise the analysis will be regarded as exploratory rather than confirmative.
decomposing the relationships of the observed variables and testing their reliability. The factor loadings—depicted by the values assigned on the respective lines (Figure 5)—represent the percentage of the variance that can be explained by the latent variable (i.e., public organizational performance). For example, the factor loading of .79 for the observed variable POP3 indicates that approximately 62% [i.e., .79 x .79 = .62] of the variance of POP3 can be explained by the latent variable POP. In other words, approximately 38% is the error [i.e., 1.00 - .62 = .38] or the variance that can be explained by other variables.

Figure 5. CFA for public organizational performance.

CFA for Organizational Citizenship Behavior

The measurement model for the latent construct organizational citizenship behaviors (OCB) was made up of two dimensions: The perceptions regarding organizational citizenship behavior related to the organization and the individual. The CFA for each dimension was estimated separately through a first-order CFA; and the overall CFA was also estimated before the second order CFA was implemented.
Organizational Citizenship Behavior for Organization

The construct validity obtained previously through the EFA was examined further. For the citizenship behaviors that were related to the organization (OCBO), the CFA procedure was implemented and yielded the following results: $\chi^2 = 71.31$, $\chi^2/df = 14.26$, AGFI = .91, CFI = .97, RMSEA = .11 and SRMR = .03. Two indices ($\chi^2/df$ and RMSEA) indicated the model was a poor fit to the data, even though all the standardized regression weights were statistically significant at ($p < .01$). They also had relatively strong factor loadings. A perusal of the standardized residual covariances matrix indicated that the observed variables OCB13 and OCB15 have coefficient estimates that were greater than the absolute value of 2.58. The value is considered in the literature to be large (e.g., Byrne, 2010). The observed variable OCB15 also had high residuals with other variables. Based on these findings, the construct for OCBO was modified by deleting the item OCB15.

The results from the modified model (i.e., deleted OCB15) show $\chi^2 = 3.53$, $\chi^2/df = 1.79$, AGFI = .99, CFI = .99, RMSEA = .03, and SRMR = .01. They indicated the structural model has a good fit to the data (Figure 6).

![Figure 6. Organizational citizenship behaviors related to organization.](image-url)
Organizational Citizenship Behavior for Individuals

The latent construct for organizational citizenship behavior related to individuals (OCBI) has the following the goodness of fit indices: $\chi^2 = 145.55$, $\chi^2/df = 29.11$, AGFI = .82, CFI = .90, RMSEA = .16, and SRMR = .06. The analysis suggests that the model has a poor fit to the data. Examining the standardized residual covariance matrix closely suggests that the observed measures OCB2 and OCB1 have a high coefficient (4.72) that was above the suggested cutoff of less than two in absolute value. The coefficients are also high when compared to the other variables. The observed measures were dropped from the construct. However, the deletion obtained a just-identified model for OCBI (Figure 7), that is, the number of “known” parameters = “unknown” estimates.25

The just-identified model has $df = 0$, which suggests that the number of unknown parameters is equal to the known parameters. In the current situation, there were 6 known parameters (i.e., 3 variances, 3 covariances) and 6 parameters for estimation (i.e., 3 factor loadings and 3 error terms). According to Brown (2006), a just-identified model would produce a unique solution that perfectly reproduced the correlations among the observed variables. The evaluation of goodness of fit of the model would not apply because, by definition, the solution always has a perfect fit. However, Brown (2006) also argues that the just identified-model may not apply when the errors of the observed variables are correlated (i.e., an under-identified model where the number of parameters is smaller than the number of estimates and the number of parameters is determined by $p=(n)(n+1)/2$ where $n=\text{the number of observable variables}$. In this case $n=3$ (OCB4, OCB6, and OCB7), so the number of parameters is $[(3)(4)/2]=6$ but the number of estimated parameters is also 6 because there are three factor loadings and three errors (i.e., six arrows). Moreover, since the degrees of freedom are calculated by the difference of the number of parameters and the number of estimates, then we have the casethat a just-identified model has zero degrees of freedom.

---

25 According to Byrne (2010), the number of parameters is determined by $p=(n)(n+1)/2$ where $n=\text{the number of observable variables}$. In this case $n=3$ (OCB4, OCB6, and OCB7), so the number of parameters is $[(3)(4)/2]=6$ but the number of estimated parameters is also 6 because there are three factor loadings and three errors (i.e., six arrows). Moreover, since the degrees of freedom are calculated by the difference of the number of parameters and the number of estimates, then we have the casethat a just-identified model has zero degrees of freedom.
consequently is no solution for the model).

The results for the just-identified model for OCBI are displayed in Figure 7.

Figure 7. Organizational citizenship behaviors for individuals.

Second Order CFA of Organizational Citizenship Behavior

The second order CFA was performed for both dimensions of organizational citizenship behavior (OCB). The overall CFA was also implemented to determine the construct validity of the latent variable OCB. The baseline model reported the following values: $\chi^2 = 75.88$, $\chi^2/df = 5.8$, AGFI = .96, CFI = .97, RMSEA = .07, and SRMR = .04. The indices $\chi^2/df$ and RMSEA were somewhat out of the threshold levels. They were corrected by using the modification index, where a path was linked between OCB13 and OCB6 in order to improve the model-fit to the data. The process gained an improvement on the model fit indices: $\chi^2 = 48.16$, $\chi^2/df = 4$, AGFI = .97, CFI = .98, RMSEA = .05, and SRMR = .03. Figure 8 depicts the overall CFA for the OCB constructs that included both dimensions.

Based on the results of the modified model above, a second-order CFA was performed for the latent construct, OCB (see Figure 9). The analysis evaluated the construct validity of the second order analysis for the latent constructs that had been developed previously with two dimensions. The examination of the goodness of fit indices reported the following values: $\chi^2 = $
48.16, $\chi^2/df = 4$, AGFI = .97, CFI = .98, RMSEA = .05, and SRMR = .03. The results suggest an acceptable model fit for the latent construct (Figure 9). In addition, all the standardized regression weights were statistically significant at the $p < .01$ level.

Figure 8. Overall confirmatory factor analysis - organizational citizenship behaviors.

Figure 9. Second order confirmatory factor analysis - organizational citizenship behavior.
Public Service Motivation

The measurement model for the latent construct public service motivation (PSM) was made up of three dimensions: (1) commitment to the public interest (CI), (2) compassion (CO), and (3) attraction to the public policy making (PP). They correspond to the theoretical definitions presented in the previous chapters. In order to examine the construct validity, the first order CFA for each dimension of the construct was performed. The second order CFA for PSM was also performed in order to obtain the PSM construct.

Commitment to the Public Interest

The dimension of the construct for respondents' commitment to the public interest (PI) consisted of four observed measures. The CFA of the base model for the dimension showed that $\chi^2 = 1.91$, $\chi^2/df = 5.45$, AGFI = .97, CFI = .98, RMSEA = .06, and SRMR = .02. The indices suggest that the structural model has an acceptable fit to the data. However, by using the modification index for the observed measures PSM5 and PSM6, the modified model (Figure 10) produced substantially higher values for the fitness to data: $\chi^2 = 2.47$, $\chi^2/df = 2.47$, AGFI = .99, CFI = .99, RMSEA = .04, and SRMR = .01.

Figure 10. CFA for commitment to the public interest.
All the standardized regression weights are reported to have statistically significant values at
the \( p < .01 \) level, but two of the observed measures have values that are slightly below the
threshold level (.6).

cfa for compassion and attraction to public policy making

The confirmation for two of the PSM dimensions, compassion (CO) and attraction to
public-policy making (PP), were performed by just-identified models. According to Brown’s
suggestion, a just-identified model has a unique solution that perfectly reproduces the
correlations among the observed measures. As such, the goodness of fit indices need not be
examined since the solution always has a perfect fit. All the factor loadings of both constructs
(Figures 11 and 12) were statistically significant at the \( p < .01 \) level. The latent construct PP has
two indices that were slightly below the threshold level for this study (see Figure 12).

**Figure 11.** CFA for compassion.

**Figure 12.** CFA for attraction to public policy making.
Overall and Second Order CFA of Public Sector Motivation

Based on the results of the first order CFA and the just-identified models, the overall CFA model and second order CFA were implemented in order to evaluate the construct validity of PSM. The baseline model (Figure 14) reported the following fit indices values: $\chi^2 = 57.19$, $\chi^2/df = 1.84$, AGFI = .98, CFI = .99, RMSEA = .03, and SRMR = .03. The values showed a good overall model fit for PSM. Also, all the values for factor loadings were statistically significant at the $p < .01$ level.

In Figure 13, a perusal of AMOS output indicated that the covariance between PP and PI (.09) was not statistically significant at the $p < .05$ level. The covariance between PP and CO was also relatively low (.14) compared to the covariance between PI and CO (.65). Based on this information, the observed variable for attraction to public policy making (PP) was dropped from the PSM model. Finally, the second order CFA was performed in order to evaluate the construct validity for PSM. The model was based on the results for the two dimensions of PSM: public interest (PI) and compassion (CO). Figure 14 showed that PSM met the assumptions of construct validity based upon the results of the following model fit indexes: $\chi^2 = 22.80$, $\chi^2/df = 1.90$, AGFI = .98, CFI = .99, RMSEA = .03, and SRMR = .02. Furthermore, all of the factor loadings were statistically significant at the $p < .01$ level, which indicates that PSM model fits the data well.
Figure 13. Overall CFA of public service motivation.

Figure 14. Second order CFA for public service motivation.
Transformational Leadership Style

The baseline model for the transformational leadership style (TLS) was made up of five observed variables with the following goodness of fit indices: $\chi^2 = 26.04$, $\chi^2/df = 13.02$, AGFI = .93, CFI = .98, RMSEA = .11, and SRMR = .03. The results suggest a poor model fit because the values for $\chi^2/df$ and RMSEA are above the suggested threshold level (i.e., $\chi^2/df < 3$ and RMSEA < .05). All the factor loadings were greater than .6 and statistically significant at the $p < .01$ level. To improve the goodness of fit for the latent construct, a modification indices was determined by establishing a possible link between the errors of observed variables TLS4 and TLS14 (i.e., by treating the covariance between e1 and e4 as a free parameter). The approach decreases the $\chi^2$ value and, thus, increases the baseline model fitness to data.

The modified model (Figure 15) yields the following values: $\chi^2 = 1.87$, $\chi^2/df = 1.87$, AGFI = .99, CFI = .99, RMSEA = .03, and SRMR = .01, which indicates a good model fit to data for the TLS construct. In addition, most of the factor loadings were above the threshold value of .6 and statistically significant at the $p < .01$ level.

![Figure 15. CFA for transformational leadership style.](image-url)
Construct and Discriminant Validity

Additional evidence for discriminant validity of the latent constructs is presented in Table 13. The reliabilities of the first-order factors were contrasted with the inter-trait correlations (i.e., Pearson's $r$ correlations). The results indicated that all the correlations were lower than the estimated reliabilities, which, according to Churchill (1999), satisfies the discriminant validity requirement. That is, the latent constructs were not highly correlated with each other.

Table 13 also presents the descriptive statistics of the variables. For instance, the construct of OCBs that are related to the organization has the highest average score (i.e., 4.09), while the OCBs related to individuals has the lowest score on the scale that ranges from 1 to 5 Likert scale (i.e., 3.5). This may indicate that employees are more likely to agree to perform activities outside of their job responsibilities which benefit their organizations, rather than their coworkers. The transformational leadership style, which has a mean score of 2.94, is based on the scale that ranges from 0 to 4.

The correlate coefficients in Table 13 suggest that there is a positive association between transformational leadership and OCBs related to the organization ($r = .47$). The association is the highest among the inter-trait correlations, suggesting that the respondents' views on transformational leadership style are linked to their behaviors in performing extra activities for the organization. On the other hand, the association between respondents' perception of public organizational performance and their public service motivation related to compassion is the lowest ($r = .14$). The association, although the lowest among the inter-trait correlations, highlights the extent to which respondents that held strong values to help others
attached a lower score to their perception of the performance of their organization.

Table 13

*Discriminant Validity: Inter-trait Correlations and Reliabilities*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Public Organizational</td>
<td>3.67</td>
<td>1.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. OCBs Related to Organization</td>
<td>4.09</td>
<td>.84</td>
<td>.41*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. OCBs Related to Individuals</td>
<td>3.54</td>
<td>.89</td>
<td>.21*</td>
<td>.43*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Public Interest</td>
<td>3.70</td>
<td>.93</td>
<td>.21*</td>
<td>.38*</td>
<td>.29*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Compassion</td>
<td>3.68</td>
<td>.95</td>
<td>.14*</td>
<td>.33*</td>
<td>.26*</td>
<td>.44*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Transformational Leadership Style</td>
<td>2.94</td>
<td>.84</td>
<td>.41*</td>
<td>.47*</td>
<td>.28*</td>
<td>.21*</td>
<td>.21*</td>
<td>.81</td>
</tr>
</tbody>
</table>

*Notes:* Elements in parenthesis on the diagonal are Cronbach’s alphas. Elements below the diagonal are intertrait correlations. All correlations are statistically significant at the *p < .01 (2-tailed) level.

Multi-Group Analysis

A multi-group analysis was conducted to test whether the theoretical model also fits the data across three groups: (1) gender, (2) levels of government where respondents were employed, and (3) the main employment activities of respondents. The baseline model discussed previously appears to be a good fit to the data ($\chi^2 = 434.94$ with 197 degrees of freedom, CFI = .9, and RMSEA = .034). The same baseline model, subsequently, was used to test the differences across the three groups. The multi-group analysis, as suggested by Joerskog and Sorbom (2004) and Byrne (2010), was conducted separately for each group, and the results for the goodness of fit are presented in Table 14. Although the baseline model fits the data reasonably well when tested across the nested-groups, the models for two categories did not fit the data well (i.e., operation-oriented employment activity and employment at the federal government).

On the main employment activities related to operation (i.e., maintenance and building...
roads), the structural model did not appear to be a good fit to the data. The “solution is not admissible” due to the “estimation of negative variances,” meaning an inappropriate model or the sample size is too small Jöerskog and Sörbom (2004). The structural model for employment at the federal government also produced poor goodness of fit results. Table 14 shows that four out of six factors (sample size, AGFI, RMSEA, and SRMR) did not meet the suggested thresholds. Thus, both categories (i.e., the employment activity related to operation and the employment category of federal government) were not considered for further analysis. Excluding these variables from the final analysis did not affect the conclusion of the analysis. However, the interpretation of the results of the final analysis need to be taken with caution since the results apply only to the variations across categories, i.e., between state and local governments employees, service and administration types of employment activities, and females and males.

The multi-group analysis allows formal testing on the influence of categorical variables simultaneously, such as the difference between male and female employees in the proposed theoretical model. It is assumed that the estimated parameters are equivalent or invariant across the group.

The main task is to test the variation across groups by conducting the following procedures (see Jöerskog & Sörbom, 2004): first, analyze a separate factor structure for each group assuming their estimates are equal. Second, estimate the configural model simultaneously for the groups. The configural model is the baseline value upon which to compare the invariant across the groups. The approach determines whether the configural model fits the data well for both groups simultaneously. The goodness of fit index for each group is presented in Table 14 suggesting the model fits the data well. Third, a test of
significance is conducted between the two groups by setting one of the groups as a constrained model, while the other is set as an unconstrained model. The Chi-square analysis with the appropriate degree of freedom tests whether the constrained and unconstrained models are statistically different (i.e., $\chi^2$ difference approach as suggested by Jöreskog & Sörbom, 2004). If the analysis yields a statistically significant result, then the groups are invariant.

Table 14

<table>
<thead>
<tr>
<th>Model Structure Diagnostics</th>
<th>RMSEA; Interval 90% of Confidence</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Models</td>
<td>Number of Obs.</td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Baseline</td>
<td>1016</td>
<td>434.94</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>470</td>
<td>307.04</td>
</tr>
<tr>
<td>Male</td>
<td>546</td>
<td>319.49</td>
</tr>
<tr>
<td>Activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>515</td>
<td>293.95</td>
</tr>
<tr>
<td>Operation</td>
<td>270</td>
<td>Solution is not Admissible</td>
</tr>
<tr>
<td>Administrative</td>
<td>231</td>
<td>317.75</td>
</tr>
<tr>
<td>Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>434</td>
<td>306.6</td>
</tr>
<tr>
<td>State</td>
<td>439</td>
<td>363.6</td>
</tr>
<tr>
<td>Federal</td>
<td>143</td>
<td>302.66</td>
</tr>
<tr>
<td>Thresholds</td>
<td>&gt;200</td>
<td>&lt;3</td>
</tr>
</tbody>
</table>

Note: The degrees of freedom are the same (i.e., $df=197$) for all the nested models because they are analyzed with using the same structural model.

Based on the multi-group analysis for gender, the configural model produces invariance results of $\chi^2 = 626.53$ with 294 degrees of freedom$^{26}$, $\chi^2$/df = 1.59, AGFI = .93, CFI = .97, and

$^{26}$ The degree of freedom was calculated as follows: the model has 22 observed variables (i.e., items), which means that $22(23)/2 = 253$. There are 2 models, which suggests that $(253)(2) = 506$ is the total number of sample moments. I have 56 parameters to be estimated for each model, which means that $(56)(2) = 112$ parameters in total are to be estimated. Thus, the degrees of freedom are the result of $506 - 112 = 394$.  

115
RMSEA = .024. The results suggest the model fit the data well for each group (see Table 14) i.e., the hypothesized model for the multi-group comparison has an acceptable goodness of fit index across females and males. In light of the goodness of fit results for the configural model, a Chi-square test (i.e., $\chi^2$ difference approach) was conducted to test the statistical difference across the groups. The results from the unconstrained model\(^{27}\), which serves as the baseline model, are as follows: $\chi^2 = 626.53$ with 394 degrees of freedom (i.e., $p < .000$). The constrained model\(^{28}\) has the following results: $\chi^2 = 632.62$ with 399 degrees of freedom ($p < .000$). The difference across gender is statistically significant ($\Delta \chi^2 = 6.09$, $\Delta df = 5$, $\Delta p < .000$).

A multi-group analysis for two groups of employees with different employment activities i.e., activity linked to service or administration was also conducted. The chi-square analysis suggests an invariant across the groups ($\Delta \chi^2 = 22.44$, $\Delta df = 16$, $\Delta p < .000$). A similar finding was found for groups that worked for the state and local governments ($\Delta \chi^2 = 14.2$, $\Delta df = 16$, $\Delta p < .000$).

The next chapter presents and discusses the final SEM results. The chapter also formally tested the direct and indirect relationships among the latent constructs. The next chapter also presents the results for the differences across gender, level of employment, and types of employment activities.

\(^{27}\) The parameters are unconstrained for both females and males groups.

\(^{28}\) All the factor loadings for the observed variables are constrained for females and males (equal across groups).
CHAPTER 5

RESULTS FROM THE STRUCTURAL EQUATION MODELING AND MULTI-GROUPS ANALYSIS

This chapter reports the direct and indirect effects of organizational citizenship behaviors (OCB), transformational leadership style (TLS), and public service motivation (PSM) on the perceived performance of public organizations (POP). Based on the SEM, there is evidence to support the direct effect of organizational citizenship behaviors (OCB) on the respondents’ perceptions of public organizational performance (POP). There is also evidence to support the relationships between transformational leadership style (TLS) and POP, as well as between TLS and OCB, but the relationships are greater when the OCB was treated as a mediator variable. That is, if employees perceive a transformational leadership style is present in their organization, they will be more likely to perform activities related to OCB; also, through OCB, they have a favorable perception of the performance of public organizations. The SEM results also show a significant relationship between public service motivation (PSM) and OCB, but there is no evidence to suggest the PSM has a direct effect on POP. That said, the association is statistically significant between PSM and POP, but only when OCB was treated as a mediator variable.

The results for potential differences across nested groups are also reported, such as gender, main tasks performed by employees in their workplace (service and administrative tasks), and the level of government in which the employees worked (i.e., local and state governments). The SEM analysis found evidence that the mediation effect of OCB is larger for female than male employees. The indirect effect was also greater for employees working as administrators, compared to those whose main job activities were in the service area, which
suggests differences in perceptions among employees assigned to various tasks. There is also
evidence that employees working for the local government tend to have higher coefficients on
each of the latent constructs, compared to those working for state governments. The following
section presents the SEM results in greater details.

Results from Structural Equation Model

The theoretical model hypothesized the relationships among four latent constructs: (1) transformational leadership styles, (2) public service motivation, (3) organizational citizenship behavior, and (4) public organizational performance. The relationships are tested using a structural equation modeling (SEM) and executed in AMOS18. The structural model (Figure 16), which is a conceptual representation of the relationships among latent variables, has already been determined and assessed for construct validity in the previous chapter. The model's goodness of fit indices was as follows: $\chi^2 = 434.94$, $\chi^2/df = 2.20$, AGFI = .95, CFI = .97, RMSEA = .03, and SRMR = .04. These indices indicated the model fits the data well. The detailed SEM model is in Appendix F.

Figure 16 presents the results of the SEM in a form of a diagram. The figure shows that most of the inferential results (i.e., the estimated regression weights) are statistically significant at the $p < .01$ level. The standardized coefficient for the PSM$\rightarrow$POP pathway is negative and not statistically significant ($\beta = -.21$, $p > .05$). The value of .33 means that about 33% of the POP variance is explained by the predictors (i.e., TLS, OCB, and PSM). Similarly, .72 means that 72% of the OCB variance is explained by TLS and PSM. The amounts of explained variance are
considered in the literature to be high\textsuperscript{29} (Kline, 2011). Moreover, the correlation (Pearson's $r$) between TLS and PSM is .37. Both factors shared approximately 14% of the variation [$r^2 = .37 \times .37 = .137$]. The details of the results are presented in Table 15.

\[ \text{Figure 16. Full results of structural equation modeling.} \]

Direct Effects

Four of the direct paths hypothesized by the theoretical model were statistically significant and in the expected direction: transformational leadership style-public organizational performance ($H_1$), transformational leadership style-organizational citizenship behaviors ($H_2$), organizational citizenship behaviors- public organizational performance ($H_3$), and public service motivation- organizational citizenship behaviors ($H_4$). Contrary to prediction, there was no

\textsuperscript{29} For example, Kline (2011) points out that values of less than 1 percent, around 10 percent, and greater than 30% are considered as small, medium, and large respectively.
There is evidence to support the first hypothesis that public employees’ perceptions of transformational leadership style (TLS) are positively associated with their perceptions of public organizational performance (POP). The structural model shows a positive and statistically significant association between these two variables ($\beta = .15$, $p < .05$). This means that an increase in one SD above the mean of the public employee’s perceptions of transformational leadership style will predict .15 SD increase in the mean of employees’ perceptions of organizational performance, holding PSM constant.

This result is consistent with previous research which studied the relationship between transformational leadership style and organizational performance (Wright & Pandey, 2010; Vigoda-Gadot, 2007; Burns, 1978; Bass, 1985; Rayney & Ryu, 2004). The basic concept asserts
that when employees perceive that their organizational leadership style responds to their authentic needs, expectations, and values, there is a tendency for the employees to perceive a favorable performance of their organization. One explanation is that the tasks of leaders are to manage employees and encourage them to reach desirable goals that can meet the organizational mission. In the context of Mexican public employees, they generally value transformational leaders, i.e., leaders that place a strong emphasis on the importance of what needs to be accomplished, in addition to a strong sense of purpose. They tend to identify with their leaders’ visions to better fulfill their organization’s mission, as well as to quickly and efficiently respond to the citizens. The findings of this study support the argument that Mexican employees tend to have strong attitudes about the effect of their transformational leaders.

The second hypothesis was also supported. That is, public employees’ perceptions of transformational leadership style (TLS) in their organization were associated positively with their engagements in organizational citizenship behaviors (OCB). Results from the structural model also showed the relationship to be positive and statistically significant ($\beta = .43, p < .01$).

Substantively, the result indicated that, on average, an increase in one $SD$ of the public employees’ perceptions of TLS is associated with an increase of .42 standard deviation on the employees’ perceptions of OCBs, ceteris paribus PSM.

This finding is consistent with the previous research that suggests employees are likely to perform extra-role behaviors such as those related to organizational citizenship behavior (e.g., Podsakof et al. 2000, Organ et al. 2006, Vigoda-Gadot, 2007) and that such behaviors are linked to the perceptions about the performance of their organization. If the leadership style within the organization is perceived as transformational, employees will perform above and
beyond what is expected of them. They are motivated by the authentic needs, aspirations, and organizational values that go beyond their self-interest motive. Among the Mexican employees, the association between citizenship behaviors and perception of organizational performance is particularly evident. The public employees in the sample are more likely to help their coworkers. They perceive their leader as someone who has a strong sense of purpose, are able to articulate a compelling vision of the future, demonstrate a concern for the organization’s image, express loyalty, and protect the organization from potential problems.

The third hypothesis is also supported by the analysis: public employees’ engagements in organizational citizenship behaviors (OCB) are associated positively with their perceptions of public organizational performance (POP). The statement is supported with a relatively large\(^{30}\) standardized coefficient value of .59; and furthermore, the association is statistically significant at \(p < .01\). The estimated parameter suggests that, if the perception of public employees of OCB increased by one standard deviation above the mean, we can expect their perceptions of public organizational performance to increase by about .46 of a standard deviation.

The result is in accordance with the studies related to OCB and organizational performance. For example, Organ et al. (2006) describe several ways in which citizenship behaviors may contribute to organizational performance. The main idea is that when employees execute spontaneous actions that are neither rewarded nor described in their job descriptions, their actions benefit the organization. This occurs because these actions maintain and enhance the social and psychological environment to perform different tasks within the work team (Organ 1997). Specifically, the analysis suggests that when employees favorably

\(^{30}\) According to Kline (2011), an absolute standardized direct effect < .10 can be considered as “small,” around .30 as “common” and > .5 as “large.”
perceive the value of citizenship behaviors, they will also have a favorable opinion regarding the functioning of public organizations. The pride of working in the organization leads to a positive view of their organizations, i.e., being responsive and efficient in delivering the services that are required by the public they serve.

Theoretically, it is also possible that if public employees have a favorable view of public service motivation (PSM), their perceptions regarding public organizational performance will also be favorable ($H_4$). However, the literature is not clear on the effect of PSM on public organizational performance. While some scholars argue that there is a positive association between PSM and organizational performance, others find the association to be modest (Perry & Wise 1990; Brewer & Selden 2000; Kim 2005). Yet, Perry, Hondeghem, and Wise (2010) argue that there are concerns whether there is an influence of the level of PSM on the individual or group performance given the endogenous factors. However, there is no evidence to support the association between the levels of PSM and the perceptions of organizational performance among Mexican public employees. The SEM analysis produces a negative coefficient, and the association is not statistically significant ($\beta=-.21$, $p>.05$). Public employees who are motivated to serve the public do not necessarily perceive the government to be responsive or effective in delivering public services.

On the other hand, I found a positive association between PSM and OCB. If public employees have a favorable view of public service motivation (PSM), then they will perform organizational citizenship behaviors (OCB) in their organizations ($H_5$). There was a strong support for this hypothesis because of a large positive coefficient and statistically significant association between PSM and OCB (i.e., $\beta=.58$, $p<.05$). The result indicated that, on average, an
increase of one standard deviation above the mean of the public employees’ level of PSM will predict .58 standard deviation increases in the mean of employee perceptions of OCB.

The positive association between PSM and OCB is consistent with the literature (e.g., Kim, 2005; Pandey, Wright, & Moynihan, 2008), suggesting that the motivation to work in the public sector contributes to employees’ motivation to engage in citizenship behaviors. The employees maintain and enhance the social and psychological environment of their work place and thus better execute their assigned responsibilities and specific tasks. The contributions can take the form of helping coworkers accomplish their activities, as well as manifesting concern for the functioning of the organization.

Indirect Effects

There are very few studies, if any, that consider the mediator role of OCBs to explain organizational performance. The mediator variable is often used to explain the relationship between the other two variables (Baron & Kenny, 1986). For instance, given a particular analysis, TLS is positively associated with POP because of the influence of OCBs. The explanation is as follows: if the employees perceive the leadership style is based upon the their authentic needs and what needs to be accomplished, they also tend to place great emphasis on the importance of having a leader with a strong sense of purpose, as well as a vision for the future. They view their leader as someone who can create an environment that can enhance organizational effectiveness and responsiveness. They are also likely to perform activities that are beyond what is expected of them in order to maintain and enhance the effectiveness of the organization.
The SEM analysis supports the general proposition that the respondents’ perceptions of transformational leadership style affect their views on the performance of public organization; such an effect is mediated by their engagement in citizenship behaviors (H6). Based on the information in Table 15, the indirect effect of TLS → OCB → POP pathway can be determined by calculating both pathways as a product of the direct effects of TLS → OCB and OCB → POP [i.e., (.43)(.59) = .25]. The total effect was calculated as the sum of direct and indirect effects (i.e., .15 + .25 = .40).

The indirect effects of TLS can be interpreted as follows: the indirect effect of the TLS → OCB → POP path indicated the indirect effect of TLS on POP via the influence of OCB. The path has a value of .25, which is greater than the direct effect of .15 on the TLS → POP path (i.e., the condition to be a mediator variable is that the direct effect is significantly smaller or non-significant). The indirect effect is statistically significant because both paths (i.e., TLS → OCB and OCB → POP) are statistically significant (Kline, 2011). Otherwise, no conclusions can be made on the mediator role of OCB between TLS and POP. Substantively, the indirect effect of .25 indicated that, on average, the level of public employee perceptions of POP can be expected to increase by .25 standard deviation for every increase of one standard deviation of the TLS via the prior effect on OCB.31

The indirect effect of PSM on POP was also mediated by OCB. For example, the indirect effect of the PSM → OCB → POP path has a value of .34, and the indirect effect is also statistically significant. The presence of an indirect effect for PSM on POP through OCB can also be

---

31 The rationale of the indirect effect value (.25) is the following: TLS has a direct effect on OCB (.43), but only part of this amount (i.e., .59 of it) is transferred to POP via OCB. The result, .25 [i.e., (.43)(.59) = .25] indicates that the level of public employee perceptions of POP is expected to increase, on average, .25 standard deviation for every increase of one standard deviation on TLS via its prior effect on OCB.
examined by the PSM→POP path, which is not only negative, but also statistically not
significant (β = -.21, p>.05) (see Kline, 2011). Note that PSM has a direct effect on OCB (β = .58,
p<.05) but only .59 of that effect is transferred to POP via OCB. The indirect effect of .34 (i.e.,
(.58)(.59)=.34) can be interpreted as the expected average increase on POP due to the increase
of one standard deviation on PSM via its prior effect on OCB. The results suggest that PSM is
associated with public organizational performance because of the influence of OCB. In other
words, employees with a strong motivation to serve the public will perceive their organizations
as effective and responsive to the concerns of citizen. They are also more likely to perform
extra activities such as those described in OCB to fulfill their internal motivations of serving
their communities.

In short, the SEM analysis establishes the mediator role of OCB, i.e., between TLS and
POP and between PSM and POP. That is, if employees’ perceptions on leadership style
conditions their desire to achieve organizational goals, they are also motivated to serve their
communities, which influences their views on organizational performance. They are also more
likely to perform extra tasks not prescribed in their job description; these extra activities, in
aggregate, will contribute to the functioning of their organizations. Comparatively, the results
also suggest that OCB played a stronger mediator role when the association between PSM and
POP is considered, compared to the association between TLS and POP. This is because the
indirect effect of PSM and POP (β = .34, p<.01) is greater than the indirect effect between TLS
and POP (β = .25, p<.01) (see Table 15). Moreover, because the indirect effects are statistically
significant but the direct effects are not statistically significant, I conclude that the mediating
effect of OCB played a crucial role in explaining the simultaneous links between the latent
constructs TLS, PSM, and POP (Kline, 2011).

Multi-Group Analysis

In addition to testing the suggested theoretical model, the mediator role of OCB can also be explored across the nested groups such as gender, main tasks performed by employees in their workplace (service and administrative tasks), and the level of government employment of the respondent (i.e., local and state governments). I found evidence that the mediator role of OCB is larger for female than male employees. The indirect effect was also greater for administrators, compared to those whose main activities were in the service area. There was also evidence that local government employees have a stronger coefficient effect on each of the latent constructs than those employees working for the state governments. The SEM analysis supports the theoretical model across these groups. Table 16 summarizes the results of the direct and indirect effects of OCB, TLS, PSM, and POP for the nested groups.

Gender

The multi-group analysis for gender shows a strong mediator effect of OCB between TLS, PSM, and POP. Because the indirect effects are statistically significant for both groups (i.e., males and females), but the direct effects (see Table 16) are not statistically significant in both cases, we can conclude that OCB explains the relationship between TLS and POP, and between PSM and POP. For example, if the group of females perceived an increase of one \( SD \) of their TLS, the females will be associated for an increase of .30 of \( SD \) on their perceptions on POP and keeping constant PSM variable.
Table 16

Results of Structural Equation Modeling for the Nested Groups

<table>
<thead>
<tr>
<th>Models</th>
<th>Direct Effects</th>
<th>Indirect Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TLS→POP</td>
<td>PSM→POP</td>
</tr>
<tr>
<td>Baseline</td>
<td>.15*</td>
<td>-.21</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>.05</td>
<td>-.38</td>
</tr>
<tr>
<td>Male</td>
<td>.21</td>
<td>-.09</td>
</tr>
<tr>
<td>Activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>.22</td>
<td>-.14</td>
</tr>
<tr>
<td>Administrative</td>
<td>.19</td>
<td>-.29*</td>
</tr>
<tr>
<td>Operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>0</td>
<td>-.32*</td>
</tr>
<tr>
<td>State</td>
<td>.15</td>
<td>-.26</td>
</tr>
<tr>
<td>Federal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < .01; *p < .05

The finding for the indirect effect suggests that both males and females perceived transformational leadership style as affecting their citizenship behavior levels, which in turn influenced their perceptions of the performance of their organization. The result also suggests that both males and females are more likely to perform activities that are spontaneous, not described in their job description, nor do they expect to be rewarded for their extra activities. However, there are variations across these two groups. The mediating effect for the female is much stronger than for the male in both cases (i.e., β_F = .30 vs. β_M = .24 and β_F = .45 vs. β_M = .29 respectively), suggesting that females’ attitudes (particularly regarding citizenship behaviors) played an important role in influencing their perceptions about organizational performance.

One possible explanation for these differences is that females have higher levels of PSM than male employees, because females are more oriented toward services compared to male
employees (Bright, 2005; Parry, 1997; Naff & Crum, 1999). Bright (2005) argues that males are expected to be more competitive, aggressive, and dominant, whereas females are expected to assume caretaking roles in the society (i.e., the gender socialization perspective). On the other hand, females are more likely to engage in OCBs than males because of gender stereotyping (e.g., they are more helpful, courteous, and kind) (Lovell et al., 1999). Furthermore, Moss et al. (2005) suggest that females are more influenced than males by leaders (both male and female), who often used consultation and inspirational appeal. By contrast, male followers perceived that their leaders used exchange (i.e., transactional leadership) more often (see Appendix G for detailed models).

**Employment Activities: Services versus Administration**

Based on the multi-group analysis related to the type of employment activities, the theoretical model fits the data for respondents who work in the services area (face-to-face interaction with the public) and data from employees in administrative or managerial positions. However, the model for the respondents with operation activities (e.g., maintenance) has a poor model fit and therefore was excluded in the final analysis. Table 16 shows that the model fits the observed data for employees working in activities related to services. The observed data also fit the hypothesized model for respondents employed in administrative positions. While the indirect effects of the latent constructs are statistically significant, the direct effects are not significant (see Table 16). The results suggest that OCB mediates the

---

32 The observed data reported for public employees working in the operations area (i.e., maintenance, building roads, etc.) did not fit the hypothesized model. The solution is not admissible due to the “estimation of negative variances” reported in AMOS.
relationship between TLS, PSM, and POP.

One of the important findings in this study is that the associations between the latent constructs are relatively larger for the observed data reported by respondents with administrative positions, rather than those employed for handling service activities. A similar finding has been reported by other scholars, especially on their tendency to pay household taxes and give medical attention to patients. According to Bright (2005), employees with higher positions in public organizations are more likely to be influenced by the altruistic motive, i.e., to serve the public, compared to those working at a lower level of public organizations. Another argument is that employees who work at a lower level of management perform their task as required by their job description and rarely have a compelling interest to serve others in the workplace.

In addition, the finding suggests that employees with a higher educational level are more likely to have a higher level of PSM (i.e., $\beta = .32, p<.05$). That is, if administrators have higher levels of community service and compassion to serve others, they are more likely to perform their tasks above and beyond their main job responsibilities. These behaviors may contribute to the enhancement of the department and organizational performance. For example, according to Podsakoff and MacKenzie (1997, p. 135), the public service motivation and citizenship behaviors improve organizational performance by enhancing “the social machinery of the organization, reducing friction, and/or increasing efficiency.” The finding is also consistent with Bright (2005), who finds that public service motivation is associated with the management level of public employees.

The analysis also shows that the association between TLS and POP among respondents
with administrative positions is higher than it is among respondents who are employed in the service area (i.e., $\beta = .32, p<.05$). The effects can be attributed to the motivation, morality, and empowerment of employees holding a managerial position in the public organization (Dvair et al., 2002). Furthermore, these employees will more likely perform activities that are above and beyond what is required of them. Such actions are rarely found in their formal contracts or prescribed as part of their responsibilities, which explains why they are more likely to contribute to the performance of their organization (see Appendix H for detailed SEM models).

Government Employment: Local versus State Government

The multi-group analysis (see Table 16) showed that employees who worked for local government had the highest values for the observed associations compared to the other groups (i.e., state and federal). The associations are also statistically significant for both indirect effects on the local employees, meaning that the respondents have relatively strong attitudes toward TLS and PSM and that such attitudes have an effect on the respondents to perform extra-role activities. Taken together, the latent constructs (TLS, PSM, and OCB) contribute to their perceptions about public organization performance. However, the observed data for those employed at state and the federal level did not fit the hypothesized model and, therefore, were excluded in the final analysis.

The finding suggests that Mexican local government employees are likely to perceive a better organizational performance based on their perceptions of a transformational leadership style. There is evidence to suggest that they are likely to be influenced by their leaders (i.e., $\beta = .42, p<.01$). They are also likely to internalize the motivation to serve others and to perform
activities not described in their job description; these attributes influence their view of the performance of their organization (i.e., $\beta = .47, p<.01$). The high motivation of Mexican local government employees to perform altruistic activities at their place of employment is consistent with Schede’s (2011) research suggesting that local government employees are more likely to perform pro-social behaviors, such as volunteering and making charitable donations compared to other levels of government (see Appendix I for detailed SEM models).

Summary

The results presented in this Chapter partly support the theoretical model developed in Chapter 2, which suggests the OCB plays a mediator role between TLS, PSM, and POP. The mediator model, which is a causal model (Kline 2011), also suggests that TLS and PSM have an effect on POP because of the presence of OCB. Otherwise, the direct associations between TLS, PSM, and POP and their associated coefficients are reduced and no longer significant (Baron & Kenny, 1986). A multi-group analysis was also performed to test the variations across groups of respondents. The evidence supports the differences across the nested groups in the dataset across gender (i.e., males and females), main activity of respondents (i.e., services and administrative responsibilities), and the employment of respondents by the level of government (i.e., local and state).

The findings show that being public employees who are motivated to serve in the public sector has a positive effect on the respondents’ view of the performance of public organizations (direct effect); and that the positive effect is mediated by the tendency to act for the benefit of other employees and organizations (indirect effect). Employees who perceive leaders in their organizations as having characteristics of transformational leadership style are likely to have a
positive view of the performance of public organizations (direct effect). The effect is mediated by their tendency to engage in activities that would contribute to the functioning of the organization without expecting any kind of reward (indirect effect). The multi-group analysis suggests that the mediator role of OCB has a relatively strong impact in explaining the relationship between TLS, PSM, and POP on females, administrators, and local government employees, compared to their male, service, and state government employee counterparts, respectively.

The results of this research present three implications for theories of organization and practices. First, theoretically, citizenship behaviors are important to consider when examining organizational performance because the actions of employees can either increase or decrease the organizational efficiency. Scholars argue that employees with strong personality traits, such as good sportsmanship or “being a good soldier” improve coworker or managerial productivity (Organ, 1988; Podsakoff & MacKenzie, 1994). For example, experienced employees can voluntarily help teach tasks to new employees, with the result that the new employees increase their productivity over a shorter period of time. Consequently, this will increase the organizational performance (Organ, Podsakoff, & MacKenzie, 2006). Similarly, over time, this behavior can be translated into a mechanism to improve and disseminate best practices in the organization. Another way employees with strong OCB increase the organizational performance is by liberating organizational resources for productive proposes. For example, employees who help each other solve problems will need less managerarial supervision. The managers will then have time for other important tasks that will increase organizational performance.
Second, it is important to create a working environment that nurtures an atmosphere where public employees will desire to perform activities that are not prescribed in their job descriptions. Although such efforts may not be part of the organizational culture in Mexico, several steps could be introduced to encourage employees to actively participate in achieving the organizational mission. For example, implementing current human resources practices in recruitment and selection would identify employees who are more likely to develop OCBs within their work place. Furthermore, the establishment of training and fair reward programs would also promote these citizenship behaviors. The findings of this study also suggest that an employee with higher levels of PSM (e.g., a desire to serve their community) and influenced by a transformational leadership (i.e., based on values), will be motivated to undertake responsibilities beyond his/her job description in order to meet the organization mission.

Public employees are also motivated to perform OCB and work in the public sector because of emotional attachments such as strong convictions about public interests (Bright 2005). Otherwise, “low levels of OCB in public administration damage its ability to provide better service to citizens, thereby undermining its creativity, innovative practices, and ultimately the democratic system” (Vigoda 2007, p. 677).

Third, the findings suggest it is important to reconsider the gender role in the context of Mexican public administration. Because female employees tend to assist others in their duties, as well as displaying stronger preferences for transformational leadership styles compared to male employees, recognizing their contributions to the functioning of organizational performance would ensure that they would continue to contribute to the effectiveness of an organization. While there is a tendency for such a role to be taken for granted in Mexico, the
findings highlight the importance of work or the nature of work that is outside the bureaucratic traditional measures of organizational performance (Kark & Waismel-Manor, 2005). Compared to male employees, female employees tend to be caring and considerate for the welfare of others. They also generally display empathy and sympathy to others—behaviors that are associated closely with civic virtue—but not often recognized by the bureaucratic tradition. Several efforts can encourage the recognition of female employees in the functioning of an organization, such as the revision of formal policies and procedures and the recognition of informal patterns of interaction among employees within the organization.
CHAPTER 6

CONCLUSIONS, DISCUSSIONS, AND FUTURE RESEARCH

The main objective of this dissertation is to examine the attitude of public employees concerning organizational citizenship behavior (OCB) and determine whether there is an association between OCB and employees’ perceptions about public organizational performance. The term OCB is often used by scholars in the field of public management to describe the behaviors of employees that are spontaneous and voluntary actions, not described in their employment contracts. Examples of citizenship behaviors may include an employee helping other co-workers, performing tasks above and beyond what is expected of them for the benefit of an organization, or doing extra work with co-workers and assisting them without expecting financial rewards. These behaviors, according to Organ (1988, 1997), promote the effective functioning of the organization because OCB is one of the foundations for maintaining and enhancing a social-psychological context for employees to perform tasks and carry out their responsibilities. The environment also can contribute to resource transformation, innovation, and adaptation.

The conceptual idea surrounding OCB is not new, however. For instance, Barnard (1938), Katz (1964), and Katz and Kahn (1966) argue that when organizations have employees who are cooperative and helpful, they are more likely to contribute to the functioning of the organization than those who are not. Collectively, their actions improve the performance of an organization, i.e., individual and organizational actions to deliver services to their constituents. The presence of OCB in an organization is also closely related to the idea of cooperative organization in that it is based on the motivation of individual members. That is, “the
accomplishment of organizational goals depends on the willingness of persons to contribute” to the efforts of the collective (Barnard, 1938, p. 83). Katz and Kahn (1966 p. 337) extend the concept suggesting that, for an organizational system to exist and become successful, employees must be hired and retained based on their tendency to contribute not only to the organization, but also to those inside and outside the organization. The employees must be able to execute what is expected of them in addition to inducing “innovative and spontaneous behavior: performance beyond job requirements for accomplishments of organizational functions.” Even though these behaviors are not critical to employees’ main job responsibilities and task accomplishments, these actions can foster psychological and physical efforts to improve the group or organizational performance (Katz & Kahn, 1966; Organ, 1988).

However, there are dark sides to citizenship behaviors. Employees displaying OCB may not contribute to the organizational effectiveness if employees who were provided with assistance withhold their efforts. Employees who help others can be distracted from performing their main activities and thus fail to contribute to the organizational performance (Sevi, 2010). In addition, those employees who were provided with assistance may not learn from their mistakes, thereby creating a culture of dependency (Podsakoff & Mackenzie, 1994). Banki (2010) argues that employees engaged in OCB have self-serving motives or hidden agendas, which can decrease the group cohesiveness if there is lack of trust and communication among employees. It is also not clear how the influence of OCB may affect employees’ relations to the functioning of an organization. However, Organ (1988) argues that OCBs may have little impact on organizational effectiveness if there is an inappropriate management system and an inadequate number of skilled employees. Other scholars suggest that employees who help new
employees will benefit the organization only if the inexperienced employees improve their productivity relative to the experienced workers (Podsakoff & MacKenzie, 1997; Organ, Podsakoff, & MacKenzie, 2006). In other words, OCBs contribute to the benefit of the organization only if the expected rewards of helping others are larger than the marginal cost of being helped.

Despite the dark sides of OCB, studying organizational citizenship behavior is important to the functioning of an organization. According to Yen, Li, and Niehoff (2008), citizenship behavior promotes socio-emotional supports to other co-workers and makes easier the work of others. Encouraging OCB in an organization is a central strategy for increasing organizational productivity when employees are encouraged to increase their psychological and physical efforts. Such a strategy is an important component of contemporary management practices (i.e., it is oriented toward voluntary compliance and increased working efforts) and moves away from management fiat or rigid hierarchical rules. If employees engage in OCB, their actions improve the environment and conditions in a workplace, allowing them to express their preferences, make decisions, and explore new ideas, highlighting that OCB can preserve the norms in a workplace. This management technique, introduced in the private sector, also serves as a foundation for public employees to engage in extra efforts to achieve crucial organizational goals, where employees can take pride, instill a strong emotional commitment to the organization, and reduce potential conflicts.

What Have We Learned?

In the context of the Mexican public sector, we learn that Mexican public employees are engaging in OCB, and that the public employees' OCB has a positive effect on their perceptions
concerning organizational performance. The factors that motivate public employees’ OCB in the Guadalajara metropolitan area (GMA) can be explained partly by their perception of transformational leadership style and partly by their motivation to serve in the public sector. Although public employees’ perception of the transformational leadership style has a positive effect on organizational performance, the effect is stronger when the mediating role of OCB is included in the analysis. In addition, aside from the influence of the leadership style, the empirical analysis also shows that OCB played an important mediating role between public service motivation and public organization performance. The evidence boosted the general proposition that OCB plays an important role given the absence of an association (direct effect) between public service motivation and the employees’ perception of organizational performance. For instance, the association between public service motivation and organizational performance is negative, and the association is not statistically significant, suggesting the lack of evidence for the direct effect.

The general findings of this study highlight the importance of OCB for the Mexican public sector. The findings are consistent with the arguments presented by scholars in developed countries. For instance, Drucker (1993) argues that technical aspects of motivation and leadership must be supplemented by voluntary actions of employees’ efforts. The behavior serves as a foundation for employees to take pride in their efforts, express a strong commitment to the organization, and establish reciprocity relationships. The behaviors are an important component of contemporary management practices that are oriented toward voluntary compliance and increased joint efforts away from the rigid hierarchical rules. This is because the psychological processes guiding the behaviors of the employees create a positive
working environment for the individuals (Hodson, 2002). The literature suggests that the organizational performance can be enhanced if OCB can be encouraged further by the management.

Although the finding suggests that the PSM is not statistically significant in explaining the public employees’ perception of public organizational performance, the fact that the association is negative presents a theoretical puzzle. Public employees may have a relatively strong motivation to serve in the public sector, but they viewed the performance of public organization negatively. One possible explanation is based on the organizational culture in Mexico, where performance of public agencies tends to be viewed as being inefficient and bureaucratic. Public employees may have a high level or strong motivation to serve in the public sector because of the inappropriate management system, excessive red tape, and unskilled employees; they believe they can make a positive difference in the performance of the public sector. The findings speak to public administration practices in Mexico. Indeed, Cabrero (2005) points out that the majority of public agencies in Mexico have obsolete administrative systems. The public employees tend to be poorly trained and lack adequate skills to perform and deliver public service. Another explanation is based on the argument presented by Scott and Pandey (2005), who point out that the motivation to serve in the public sector can be frustrating for public employees, especially if they fail to witness the connection between their efforts and the organizational outcomes. Despite the belief in making a difference, they can be frustrated with procedural rules with no clear connections between performance and rewards.

The theoretical framework was further tested on three nested groups: gender (male and
female), employment activity (administrative and service), and respondents from two levels of
government (local and state). The findings revealed that females are more likely to engage in
OCB compared to males. This can be partly explained by the argument that female employees
have the tendency to be more sensitive to a leadership style (Moss et al., 2006) and have a
stronger motivation to serve in the public sector compared to male employees (Bright, 2005).
The difference can also be explained by gender roles where females are expected to be helpful,
courteous, and kind (Lovell et al., 1999), whereas males are viewed as being more competitive
and aggressive (Bright 2005). The results have several implications for current human resource
practices and Mexican public administration. Female employees need to be valued because of
their OCB, i.e., they have a relatively higher disposition to perform OCB than male employees.
It is necessary also to recognize their informal interactions, not necessarily through monetary
rewards, but through job appraisals that recognize their roles and engagement in OCB.

The research also found that public employees with administrative positions have higher
levels of OCB when compared with employees who engage directly in the services area.
According to Bright (2005), employees at lower levels of management generally perform their
basic tasks based on their job description and rarely have the opportunity to help others in the
organization due to the incentive structure. Those at the management level tend to have a
favorable job appraisal if they engage in OCB, suggesting that there is a stronger appreciation of
OCB at the managerial level than among those working at the lower level. This finding is
important for current Mexican human resource practices. Public employees with
administrative positions who perceive the strong presence of a transformational leadership
style in their organization generally have positive attitudes about OCB, which suggest that
Mexican employees are influenced by inspirational leaders who are able to change the morality of their employees. The finding is consistent with the argument presented by Denhardt and Campbell (2006) i.e., the importance of transformational leaders in encouraging democratic values and the assertion of public interest.

The results also suggest that Mexican managers can be instrumental in promoting citizenship behaviors, i.e., by reinforcing the values of public interest over self interest in order to enhance Mexican public sector performance. For instance, the study conducted by O’Connell et al. (2001) suggests that Mexican employees in the private sector engaged in organizational citizenship behaviors, indicating that the individual personality may be an explanation for OCB. Moreover, in Mexican culture at the work place, the interaction between managers and their subordinates is based on collaborative relations, i.e., as characterized by employees’ sense of loyalty to their managers. Writing of Mexican employees, Tierney, Bauer, and Potter (2002) note that their extra-role behaviors depend on the relationships they have with their supervisors.

The findings also show that employees who work for local government tend to have more favorable attitudes concerning OCB than state government employees. Public employees’ engagement in OCB appears to vary by the level of government employment. The result suggests that OCB among employees working for municipal government can be explained by their familiarity with their local environment; i.e., they have stronger social connections with their communities and are highly motivated to do extra activities for the wellbeing of their communities (McAdam & Paulsen 1993; Schede, 2011). This finding is not the exception. In Mexico, as suggested by the empirical evidence, the street level bureaucracy, particularly at the
local level, played a role in delivering services to the citizens. The decentralization policy introduced in the early 1980s may also explain the tendency for public employees working for the local government to have higher OCB than state employees. As noted by Cabrero-Mendoza (1996), Guillen (1996), Ramirez-Saiz (1998) and Ziccardi (1995), the decentralization policies in Mexico have led to improvement in the large cities of most metropolitan areas.

Limitations and Future Research

While this dissertation makes contributions to the field of public management, it also has several limitations. First, it is based on perceptions of employees and not their actual behaviors. For example, the study has not examined actual in-role behaviors of public employees (i.e., those activities described in the job description). Although subjective measures of employees’ behaviors are important when studying organizational performance, formal behaviors or in-role behaviors may provide additional insights to explain the organizational performance because they can also contribute to a friendly environment in the workplace.

The measurement used to operationalize the motivation of public employees to serve in the public sector also has its weaknesses. Even though operationalizing PSM has received great attention in the field of applied research, the measurement of public service motivation is still in its infancy. Scholars suggest that the concept needs items development across various settings, especially the dimensions of attraction to public policy-making and compassion (Coursey & Pandey, 2007). For example, attraction to the public policy-making dimension for Mexican public employees did not have an effect on the broader concept of public service motivation, which suggests that the instruments and items in the survey developed by previous
scholars need to be revised to capture PSM across international boundaries and organizational cultures.

The measurement used to operationalize the leadership styles also has its weaknesses. One of the principal criticisms of this scale is that there is a high correlation among the dimensions measuring leadership style (Muenjohn & Armstrong, 2008). Moreover, Schriesheim, Wu, and Scandura (2009) argue that one of the weaknesses of using the multifactor leadership questionnaire (MLQ) is related to the unit of analysis. When implementing the MLQ, scholars are often unclear whether the items captured information related to the individuals, groups, or organizations, i.e., whether they related to the leadership style of an individual manager, a group, or the organization in general. In addition, the transformational leadership style is only one type of leadership style that may be experienced by all public employees in Mexico. Martinez (2005), for example, argues that Mexican leadership style is based on “paternalism,” which indicates that leaders are generally benevolent by taking care of their employee’s basic needs and families. In light of this argument, public employees’ perception of a leadership style must also take into account the societal view regarding a paternalistic leader and how such a leadership style influences public employees’ OCB.

There are also weaknesses in trying to measure the concept of OCB. For example, the organizational citizenship behavior scale suggested by Organ (1988) was based on previous work that has been criticized (Barnard, 1938; Katz, 1964; Katz & Kahn, 1966). One of the criticisms is that the latent construct is difficult to operationalize because of the fuzziness of the concept. Scholars have difficulty in separating the differences between in-role behaviors and
extra-role behaviors (Morrison, 1994). That is, without a precise definition, it is difficult for researchers to establish extra-roles performed by employees. Moreover, extra-role activities varied given different job characteristics.

One of the main weaknesses of this study is measuring public organizational performance. For instance, it was difficult to differentiate among and operationalize the different concepts related to organizational outcomes and outputs. Public employees that responded to the survey may have misinterpreted the differences between outcomes and outputs in the organization in which they are employed. Moreover, most public agencies in Mexico are operating under a low budget. Given the unpredictable changes in resources (e.g., budgets can unexpectedly change from year to year), it is uncertain how they can meet service requirements for their residents (Boyne & Meir, 2009). In addition, according to Dubnick (2005), the term “organizational performance” is a relative concept. The concept can be understood in terms of individual or organizational efforts (i.e., actions) or in terms of results or organizational achievements. The confusion in conceptualization may cause responders to refer to both types of “organizational performance.” The distinction is important because of its implications for how respondents might answer. The “red tape” phenomenon, which emphasizes actions being performed, rather than the results of those actions, is an example of this controversy (Dubnick, 2005).

Although the concept of public organizational performance is difficult to operationalize objectively, when captured through the employees’ perceptions of effectiveness (i.e., extent to which an organization accomplished its goals) and responsiveness (i.e., emphasizing the quality of the achieved goals), the concept produced an important insight. For example, about 33% of
the variability of the public organization’s perceptions was explained by the public employees’
engagement in organizational citizenship behaviors, leaving an open question regarding other
factors that might explain public organizational performance.

Future studies, therefore, need to examine further the measurement reliability and
validity of these constructs. Although the measures used in this research had been empirically
tested for their reliability and validity in former studies (Lusthaus et al., 2002; Vigoda, 2000; Lee
& Allen, 2002; Coursey & Pandey, 2007; Bass, 1985; Bass & Avolio, 1993), some observed
variables have relatively lower reliability scores and levels of construct validity. That is, in order
to fit the data with the model, modification processes had to be executed to improve the model
fit (e.g., dropping items). Although these processes are valid in order to increase the model fit, it is important to recognize that the process also led to losing information.

Second, there was a potential sampling bias during the collection of data. The survey
was implemented based on “voluntary response,” i.e., the respondents were self-selected, and they participated in answering the survey voluntarily because they have strong opinions, and thus overstated their response. Although considerable efforts have been made to minimize the potential selection bias, i.e., by briefing the respondents on the importance of the information they provided, they might have provided the same response related to independent and dependent variables. This may cause biases in response because the same employee was providing information concerning their own public organization and, because of their loyalty to their organization, it may have led them to either overestimate or underestimate their responses.

The specific characteristics of Guadalajara Mexico may also limit the external validity of
the findings. Other Mexican cities may have different experiences regarding the behaviors of public employees. Public employees may behave differently in smaller metropolitan areas located outside the state capital. Despite the limitation, the study of public employees’ attitudes and perceptions in GMA is still important when testing theories originated in developed countries (Organ et al., 2006; Hofstede, 1980). The different organizational cultures across international boundaries may lead to different conclusions concerning the behaviors of employees, and thus, the managerial techniques best to improve organizational performance.

Future research should also consider how to minimize the potential problem of response and selection biases. The limitations can be minimized in the following ways: first, the suggested theoretical model should be implemented in different settings. For example, a similar study can be conducted in different metropolitan areas or countries to determine if the results are anomalous or have external validity. Second, future research can take on an experimental or quasi-experimental study, which can improve the causal mechanisms among the studied variables. Such a study can empirically test the associations between transformational leadership style, an employee’s level of public service motivation, OCB, and public organizational performance under controlled environments.

Third, the current dissertation has not tested the causality of the variables. That is, the research design does not provide enough information to make predictions about the associated latent variables. The findings suggest an association (not causality) with an understanding that the directions of the associations can also work the other way around. Although a cross-sectional design is widely used in empirical research (Lerner, 2002), the research design adopted in this study has not permitted statements to be made about causal inferences. Nor
does such research design guarantee equivalent results in a different time and space. For example, although the constructs such as leadership styles, public service motivation, and OCB were suggested as having impacts on the respondents’ perception of organizational performance, the analysis does not make causal predictions.

It is possible that the favorable perceptions of organizational performance would lead to OCB if public employees in Guadalajara metropolitan area and the Mexican organizational culture detected how they informally interact. It is feasible that public employees are likely to help others, and thus they have a strong motivation to serve in the public sector. For example, on the issue related to the nature of causality, OCB was treated as an independent variable; it can also be designed as a dependent variable (Podsakoff et al., 2000). If the organization is performing well, then the employees are under less stress, and thus, they are more likely to perform OCBs. Some scholars found no causal relationship (or spurious association) between OCBs and organizational performance. Employees in a group with outstanding performance may report OCB. Their performance may not be caused by OCB, but be due rather to their working relationships. The assumption is that outstanding performance groups were those who helped each other (which led to an outstanding performance) rather than the other way around.

Moreover, on the substantive issues related to the latent constructs, this research has not explored the argument suggested by Bright (2007), who argues that employees with high levels of PSM may not be compatible in other types of public organizations. Although public employees have a strong motivation to serve in the public sector, they may not be suitable in other types of public organizations, since public organizations have different missions, culture,
goals, resource, and jobs. According to Bright (2005), public employees with high levels of PSM have their own job preferences. Those in the military, for instance, may serve the country because of the general mission of protecting the country, rather than serve as a police officer who protects a local community.

Substantively, this study has not directly examined other type of leadership styles that may be important for public employees in Mexico. That is, this study only considered the transformational leadership style, while the transactional leadership style may also be important in the context of Mexican public administration. Bass and Avolio (1991), for example, note that there are several categories of leadership styles: transformational, transactional, and laissez-faire leadership, and that these types of leadership styles can be found in any leader or organization. Future research should consider examining the transactional leadership style, which may lead employees to behave according to the leader’s wishes because they believe it will be beneficial to them (Burns, 1978).

Significance of this Study

Despite the limitations, the significance of this study can be summarized in the following ways: theoretically, few studies have examined the concept of citizenship behaviors among public employees. Public management scholars have suggested that citizenship behaviors might have a positive impact on organizational performance; however, few have extended the argument by including the mediating effects of OCB between leadership styles, public service motivation, and public organizational performance. This study integrates transformational leadership style and public service motivation as antecedents for citizenship behaviors in order to explain public employees’ perceptions regarding the performance of their organization.
Empirically, this study highlights the importance of OCB in the public sector. Although in the management literature there is a strong argument that OCB can increase the organizational performance, most studies have been conducted in the private sector. Few studies have been done in the public sector. In developing countries, most public reforms aimed at increasing effectiveness in the public sector also neglect the altruistic behaviors that motivate individuals to serve the public (Rainey, 1982). In addition to training and performance appraisal, applying practices of recruiting and selection in order to identify employees likely to engage in OCBs can improve human resource management and practices in a public organization. According to Organ, Podsakoff, and MacKenzie (2006), the process of recruitment and selection of potential public employees is an important first step to enhance OCB. Since OCBs are important for organizational performance, the task for the HR practitioners is to identify the behaviors in the job analysis and consider them as part of the job success. According to the authors, it is possible to engage employees in OCB through training and mentoring programs. Most experienced employees can be partnered with new employees as a way to motivate those being mentored to engage in OCBs. At the same time, OCBs must be considered in the reward system because behavior that is rewarded is more likely to be repeated. However, there is a potential problem if the manager fails to detect OCBs, causing employees to decrease their tendency to contribute to the effort of the organization. The managers must also inform the employees about the importance of OCBs clearly when assessing their overall performance; otherwise, employees are less likely to become motivated and engaged by OCBs.

The study also highlights that, in the Guadalajara metropolitan area, public employees with higher levels of PSM (e.g., desire to serve their community) and experiencing
transformational leadership (i.e., based on values) will be motivated to perform above and beyond what is expected of them in order to accomplish the organizational mission. Otherwise, “low levels of OCB in public administration damage its ability to provide better service to citizens, thereby undermining its creativity, innovative practices, and ultimately the democratic system” (Vigoda 2007, p. 677). The findings also suggest that public managers in Mexico are perceived as having a strong interest to serve their communities and having compassion for others. Mexican public managers have a strong influence on their subordinates, and they have relatively high motivation to serve others.

In conclusion, OCB should be encouraged by the Mexican government because such behaviors are an important part of contemporary management practices. Especially in the Guadalajara metropolitan area, with more than 4.4 million people, OCB among public employees will be an important management practice that should be encouraged in order to respond to public demands for public services. In light of decentralization reforms introduced by the federal government in the 1980s, the provision and production of services will likely fall increasingly on the shoulder of local governments. To carry out these responsibilities, public employees with strong public service motivation and OCB will be the cornerstone to achieve a desired organizational goal and instill a strong commitment to public service.
<table>
<thead>
<tr>
<th>Public Organization</th>
<th>Gover/Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Commission of Electricity</td>
<td>Federal</td>
</tr>
<tr>
<td>Foreign Trade</td>
<td>Federal</td>
</tr>
<tr>
<td>Mexican Social Security Institute</td>
<td>Federal</td>
</tr>
<tr>
<td>Ministry of Foreign Affairs</td>
<td>Federal</td>
</tr>
<tr>
<td>National commission for human rights</td>
<td>Federal</td>
</tr>
<tr>
<td>National Institute of Geography and Information</td>
<td>Federal</td>
</tr>
<tr>
<td>National Rehabilitation Institute</td>
<td>Federal</td>
</tr>
<tr>
<td>Political Party</td>
<td>Federal</td>
</tr>
<tr>
<td>Secretary of environment and natural resources</td>
<td>Federal</td>
</tr>
<tr>
<td>secretary of social development</td>
<td>Federal</td>
</tr>
<tr>
<td>Women's Institute</td>
<td>Federal</td>
</tr>
<tr>
<td>Youth Institute</td>
<td>Federal</td>
</tr>
<tr>
<td>Ministry of Public Security</td>
<td>State</td>
</tr>
<tr>
<td>Civil Registry</td>
<td>State</td>
</tr>
<tr>
<td>Department of Public Administration</td>
<td>State</td>
</tr>
<tr>
<td>Environmental Inspection</td>
<td>State</td>
</tr>
<tr>
<td>Health Department</td>
<td>State</td>
</tr>
<tr>
<td>Ministry of Finance</td>
<td>State</td>
</tr>
<tr>
<td>Ministry of Planning</td>
<td>State</td>
</tr>
<tr>
<td>Old Civil Hospital of Guadalajara</td>
<td>State</td>
</tr>
<tr>
<td>Pension Institute of Jalisco</td>
<td>State</td>
</tr>
<tr>
<td>Secretary of Roads</td>
<td>State</td>
</tr>
<tr>
<td>State Congress of Jalisco</td>
<td>State</td>
</tr>
<tr>
<td>City of Guadalajara</td>
<td>Local</td>
</tr>
<tr>
<td>City of Tlaquepaque</td>
<td>Local</td>
</tr>
<tr>
<td>City of Tonalá</td>
<td>Local</td>
</tr>
<tr>
<td>City of Zapopan</td>
<td>Local</td>
</tr>
<tr>
<td>City of Tlajomulco</td>
<td>Local</td>
</tr>
<tr>
<td>Municipal Abattoir</td>
<td>Local</td>
</tr>
<tr>
<td>Municipal Information Center</td>
<td>Local</td>
</tr>
<tr>
<td>National System for Integral Family Development</td>
<td>Local</td>
</tr>
<tr>
<td>Sport Municipal Commission</td>
<td>Local</td>
</tr>
</tbody>
</table>
APPENDIX B

SURVEY INSTRUMENT: ENGLISH AND SPANISH
The following survey is being conducted as part of a larger study on public employees' perceptions of their working environment. One of the aims of this study is to identify the perceptions and attitudes of public employees regarding organizational leadership and performance as well as the motivations to work in the public sector. The information you provide will be essential to understand the perceptions of public employees on organizational performance. Your individual responses will be held confidential. Only aggregate information will be reported. The survey will take you approximately 15 minutes to complete. Thank you.

This survey instrument has been reviewed and approved by the UNT Institutional Review Board # 10-481

To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Politics is a dirty word.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. The “give and take” of public policy-making does not appeal to me.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. I don't care much for politicians.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. I unselfishly contribute to my community.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Meaningful public service is very important to me.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. I would prefer seeing public officials do what is best for the whole community even if it harmed my interests.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. I consider public service my civic duty.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. It is difficult for me to contain my feelings when seeing people in distress.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. I am often reminded by daily events about how dependent we are on one another.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. I have little compassion for people in need who are unwilling to take the first step to help themselves.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

1. How often do you engage in the following behaviors?

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Never</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Help others who have been absent.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Willingly give your time to help others who have work-related problems.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Adjust your work schedule to accommodate other employees' requests for time off.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Adjust your work schedule to accommodate other employees' requests for time off.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Show genuine concern and courtesy toward coworkers, even under the most trying business or personal situations.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. Give up time to help others who have work or nonwork problems.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. Assist others with their duties.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. Share personal property with others to help their work.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. Attend functions that are not required but that help the organizational image.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
10. Keep up with developments in the organization. & 1 & 2 & 3 & 4 & 5  
11. Defend the organization when other employees criticize it. & 1 & 2 & 3 & 4 & 5  
12. Show pride when representing the organization in public. & 1 & 2 & 3 & 4 & 5  
13. Offer ideas to improve the functioning of the organization. & 1 & 2 & 3 & 4 & 5  
14. Express loyalty toward the organization. & 1 & 2 & 3 & 4 & 5  
15. Take action to protect the organization from potential problems. & 1 & 2 & 3 & 4 & 5  
16. Demonstrate concern about the image of the organization. & 1 & 2 & 3 & 4 & 5  

2. The following set of questions is to describe the leadership style within your organization as you perceive it. Please answer all items on this answer sheet.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Once in a while</th>
<th>Sometimes</th>
<th>Fairly often</th>
<th>Frequently, if not always</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**THE ORGANIZATIONAL LEADERSHIP STYLE I AM RATING...**

- 13. Talks enthusiastically about what needs to be accomplished
- 14. Specifies the importance of having a strong sense of purpose
- 26. Articulates a compelling vision of the future

4. In thinking about the organization you are currently employed, to what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Your organization seriously responds to public criticism and suggestions for improvement.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Your organization responds to public requests quickly and efficiently.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Your public organization is making a sincere effort to support those residents who need help.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Your organization is effective in moving toward the fulfillment of its mission.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Your organization is effective in meeting those goals as expressed in its charter, mission statement or other documents that provide the “raison d’être” for the organization.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. Your organization has qualitative and quantitative indicators to capture the essence of its mission.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Please tell us something about yourself:

- Gender: [ ] Male [ ] Female
- Highest Level of Education: [ ] Elementary School [ ] Middle School [ ] High School [ ] Bachelor’s Degree [ ] Master’s Degree [ ] Doctoral
- Which level of government do you work for? [ ] Federal [ ] State [ ] Municipal
Do you volunteer your free time in the volunteers/nonprofit organizations?  Yes ☐  No ☐
[Nonprofit includes churches and civil association]
If so, how often do you volunteer in the nonprofit sector?  Daily ☐  Weekly ☐  Monthly ☐  Yearly ☐
In your organization, what is your main responsibility (Select just one)?
☐ Service (i.e., dealing face to face with the citizens)
☐ Operation (i.e., administrative procedures inside of the organization or/and infrastructure maintenance)
☐ Administrative tasks (e.g., management tasks of service or/and operation)

What is your employment status in your current organization?  Full time ☐  Part time ☐
How long have you been working in the public sector?  ___________ Years
How long have you worked in your current organization?  ___________ Years
Could you give us the name or principal activity of your public organization?  __________________________
What is your monthly income (US dollars)?

<table>
<thead>
<tr>
<th></th>
<th>$500-750</th>
<th>$751-1000</th>
<th>$1001-1250</th>
<th>$1251-1500</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1501-1750</td>
<td>$1751-2000</td>
<td>$2001-2500</td>
<td>$2501-3000</td>
<td>$3000 and More</td>
</tr>
</tbody>
</table>

Thank you again for your participation in this study. We would welcome any additional comments and suggestions you may have.
La siguiente encuesta forma parte de un estudio sobre las percepciones de los empleados públicos dentro de su ambiente de trabajo. Uno de los propósitos de esta encuesta es identificar las percepciones y actitudes de los servidores públicos respecto al liderazgo organizacional y desempeño así como las motivaciones para trabajar en el sector público. La información que usted nos proporcione será fundamental para entender las percepciones de los servidores públicos sobre el desempeño de la dependencia pública. Sus respuestas serán clasificadas como confidenciales. Solamente será reportada la información en forma agregada. Esta encuesta le tomará aproximadamente 15 minutos para contestarla. Gracias.

Este cuestionario ha sido revisado y aprobado por el “UNT Institutional Review Board #10-481”

1. ¿Qué tan de acuerdo está usted con los siguientes enunciados?

<table>
<thead>
<tr>
<th>Enunciado</th>
<th>Total Desacuerdo</th>
<th>Total Acuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. La política es una palabra sucia</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. El dar y recibir de las políticas públicas no es atractivo para mí.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. No me importan mucho los políticos.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Contribuyo desinteresadamente en mi comunidad.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. El servicio público con propósitos es muy importante para mí.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. Prefiero ver servidores públicos que hacen lo que es mejor para la comunidad entera aunque perjudique mis intereses.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. Considero el servicio público como mi responsabilidad civil.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. Es difícil para mí contener mis sentimientos cuando veo gente en desgracia</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. Seguido recuerdo por los sucesos diarios como dependemos unos de otros.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. Siento un poco de compasión por gente que no está dispuesta a dar el primer paso para ayudarse a sí misma.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

2. ¿Qué tan seguido usted se involucra en los siguientes comportamientos dentro su dependencia pública?

<table>
<thead>
<tr>
<th>Comportamiento</th>
<th>Nunca</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ayudar a otros que han estado ausentes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Ofrecer voluntariamente su tiempo para ayudar a otros que, tienen problemas relacionados con el trabajo.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Ajustar su horario de trabajo para sustituir los requerimientos de permiso de ausencia de otros empleados.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Salirse de la rutina para hacer que los nuevos empleados se sientan bienvenidos al grupo de trabajo.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Mostrar genuino interés y cortesía con los compañeros de trabajo, inclusive en las situaciones más difíciles o situaciones personales.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Sacrificar su tiempo para ayudar a otros que tienen problemas con el trabajo o de otra índole.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Ayudar a otros con sus deberes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
8. Compartir con otros objetos personales para ayudarios en su trabajo. | 1 | 2 | 3 | 4 | 5
--- | --- | --- | --- | --- |
9. Atender funciones que no son requeridas pero que ayudan a la imagen de la dependencia. | 1 | 2 | 3 | 4 | 5
10. Mantenerse actualizado en los desarrollos de la dependencia. | 1 | 2 | 3 | 4 | 5
11. Defender la dependencia cuando otros empleados la critican. | 1 | 2 | 3 | 4 | 5
12. Mostrar orgullo cuando se representa a la dependencia en público. | 1 | 2 | 3 | 4 | 5
13. Dar ideas para mejorar el funcionamiento de la dependencia. | 1 | 2 | 3 | 4 | 5
14. Expresar lealtad hacia la dependencia. | 1 | 2 | 3 | 4 | 5
15. Tomar acciones para proteger la dependencia de problemas potenciales. | 1 | 2 | 3 | 4 | 5
16. Mostrar interés por la imagen de la dependencia. | 1 | 2 | 3 | 4 | 5

3. Los siguientes enunciados describen el estilo de liderazgo, como usted lo percibe, dentro de su dependencia pública. Por favor conteste todos los enunciados.

<table>
<thead>
<tr>
<th>Definitivamente</th>
<th>No</th>
<th>Deber en cuando</th>
<th>Algunas veces</th>
<th>A menudo</th>
<th>Frequentemente o casi siempre</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Estoy evaluando el estilo de liderazgo dentro mi dependencia pública...</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Habla con entusiasmo acerca de lo que se debe lograr.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. Específica la importancia de tener un fuerte sentido de propósito</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>26. Expresa clara y convincentemente su propia visión de futuro.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

4. Pensando en la dependencia pública donde usted trabaja, ¿qué tan de acuerdo está con los siguientes enunciados?

<table>
<thead>
<tr>
<th></th>
<th>Total Desacuerdo</th>
<th>Total Acuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Su dependencia responde seriamente a la crítica del público así como a las sugerencias para mejorar.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Su dependencia responde rápida y eficiente a los requerimientos del público.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Su dependencia está haciendo un sincero esfuerzo para apoyar a ciudadanos que necesitan ayuda.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Su dependencia es eficiente el uso de sus recursos.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Su dependencia es efectiva en alcanzar su objetivo principal.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. Su dependencia cuenta con indicadores cuantitativos o cualitativos que capturan la esencia del objetivo fundamental.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
APPENDIX C

DESCRIPTIVE STATISTICS OF THE STUDY VARIABLES
<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSM1</td>
<td>1</td>
<td>5</td>
<td>2.3</td>
<td>1.3</td>
<td>0.6</td>
<td>-0.7</td>
</tr>
<tr>
<td>PSM2</td>
<td>1</td>
<td>5</td>
<td>2.7</td>
<td>1.3</td>
<td>0.2</td>
<td>-0.9</td>
</tr>
<tr>
<td>PSM3</td>
<td>1</td>
<td>5</td>
<td>2.8</td>
<td>1.4</td>
<td>0.2</td>
<td>-1.1</td>
</tr>
<tr>
<td>PSM4</td>
<td>1</td>
<td>5</td>
<td>3.5</td>
<td>1.3</td>
<td>-0.4</td>
<td>-1.0</td>
</tr>
<tr>
<td>PSM5</td>
<td>1</td>
<td>5</td>
<td>4.0</td>
<td>1.2</td>
<td>-1.1</td>
<td>0.2</td>
</tr>
<tr>
<td>PSM6</td>
<td>1</td>
<td>5</td>
<td>3.5</td>
<td>1.4</td>
<td>-0.5</td>
<td>-0.9</td>
</tr>
<tr>
<td>PSM7</td>
<td>1</td>
<td>5</td>
<td>3.8</td>
<td>1.3</td>
<td>-0.8</td>
<td>-0.6</td>
</tr>
<tr>
<td>PSM8</td>
<td>1</td>
<td>5</td>
<td>3.6</td>
<td>1.2</td>
<td>-0.6</td>
<td>-0.6</td>
</tr>
<tr>
<td>PSM9</td>
<td>1</td>
<td>5</td>
<td>3.8</td>
<td>1.1</td>
<td>-0.7</td>
<td>-0.4</td>
</tr>
<tr>
<td>PSM10</td>
<td>1</td>
<td>5</td>
<td>3.6</td>
<td>1.3</td>
<td>-0.5</td>
<td>-0.8</td>
</tr>
<tr>
<td>OCB1</td>
<td>1</td>
<td>5</td>
<td>3.6</td>
<td>1.1</td>
<td>-0.5</td>
<td>-0.4</td>
</tr>
<tr>
<td>OCB2</td>
<td>1</td>
<td>5</td>
<td>3.6</td>
<td>1.1</td>
<td>-0.4</td>
<td>-0.5</td>
</tr>
<tr>
<td>OCB3</td>
<td>1</td>
<td>5</td>
<td>3.2</td>
<td>1.2</td>
<td>-0.2</td>
<td>-0.9</td>
</tr>
<tr>
<td>OCB4</td>
<td>1</td>
<td>5</td>
<td>3.7</td>
<td>1.1</td>
<td>-0.5</td>
<td>-0.5</td>
</tr>
<tr>
<td>OCB5</td>
<td>1</td>
<td>5</td>
<td>4.0</td>
<td>1.0</td>
<td>-0.8</td>
<td>0.1</td>
</tr>
<tr>
<td>OCB6</td>
<td>1</td>
<td>5</td>
<td>3.5</td>
<td>1.1</td>
<td>-0.4</td>
<td>-0.5</td>
</tr>
<tr>
<td>OCB7</td>
<td>1</td>
<td>5</td>
<td>3.5</td>
<td>1.1</td>
<td>-0.4</td>
<td>-0.5</td>
</tr>
<tr>
<td>OCB8</td>
<td>1</td>
<td>5</td>
<td>3.6</td>
<td>1.1</td>
<td>-0.5</td>
<td>-0.5</td>
</tr>
<tr>
<td>OCB9</td>
<td>1</td>
<td>5</td>
<td>3.6</td>
<td>1.1</td>
<td>-0.5</td>
<td>-0.5</td>
</tr>
<tr>
<td>OCB10</td>
<td>1</td>
<td>5</td>
<td>4.0</td>
<td>1.0</td>
<td>-0.7</td>
<td>-0.3</td>
</tr>
<tr>
<td>OCB11</td>
<td>1</td>
<td>5</td>
<td>3.7</td>
<td>1.1</td>
<td>-0.5</td>
<td>-0.4</td>
</tr>
<tr>
<td>OCB12</td>
<td>1</td>
<td>5</td>
<td>4.0</td>
<td>1.1</td>
<td>-0.9</td>
<td>0.0</td>
</tr>
<tr>
<td>OCB13</td>
<td>1</td>
<td>5</td>
<td>4.0</td>
<td>1.0</td>
<td>-0.9</td>
<td>0.2</td>
</tr>
<tr>
<td>OCB14</td>
<td>1</td>
<td>5</td>
<td>4.2</td>
<td>1.0</td>
<td>-1.1</td>
<td>0.6</td>
</tr>
<tr>
<td>OCB15</td>
<td>1</td>
<td>5</td>
<td>3.9</td>
<td>1.1</td>
<td>-0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>OCB16</td>
<td>1</td>
<td>5</td>
<td>4.1</td>
<td>1.0</td>
<td>-1.1</td>
<td>0.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLS1</td>
<td>0</td>
<td>4</td>
<td>2.6</td>
<td>1.0</td>
<td>-0.5</td>
<td>-0.2</td>
</tr>
<tr>
<td>TLS2</td>
<td>0</td>
<td>4</td>
<td>2.3</td>
<td>1.3</td>
<td>-0.3</td>
<td>-1.0</td>
</tr>
<tr>
<td>TLS3</td>
<td>0</td>
<td>4</td>
<td>2.2</td>
<td>1.2</td>
<td>-0.3</td>
<td>-0.9</td>
</tr>
<tr>
<td>TLS4</td>
<td>0</td>
<td>4</td>
<td>3.0</td>
<td>1.1</td>
<td>-1.0</td>
<td>0.4</td>
</tr>
<tr>
<td>TLS5</td>
<td>0</td>
<td>4</td>
<td>2.7</td>
<td>1.1</td>
<td>-0.7</td>
<td>-0.2</td>
</tr>
<tr>
<td>TLS6</td>
<td>0</td>
<td>4</td>
<td>3.0</td>
<td>1.0</td>
<td>-0.9</td>
<td>0.3</td>
</tr>
<tr>
<td>TLS7</td>
<td>0</td>
<td>4</td>
<td>2.9</td>
<td>1.0</td>
<td>-0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>TLS8</td>
<td>0</td>
<td>4</td>
<td>2.7</td>
<td>1.2</td>
<td>-0.7</td>
<td>-0.4</td>
</tr>
<tr>
<td>TLS9</td>
<td>0</td>
<td>4</td>
<td>2.2</td>
<td>1.2</td>
<td>-0.3</td>
<td>-0.9</td>
</tr>
<tr>
<td>TLS10</td>
<td>0</td>
<td>4</td>
<td>2.2</td>
<td>1.3</td>
<td>-0.3</td>
<td>-1.1</td>
</tr>
<tr>
<td>TLS11</td>
<td>0</td>
<td>4</td>
<td>2.8</td>
<td>1.2</td>
<td>-0.7</td>
<td>-0.3</td>
</tr>
<tr>
<td>TLS12</td>
<td>0</td>
<td>4</td>
<td>2.7</td>
<td>1.2</td>
<td>-0.7</td>
<td>-0.2</td>
</tr>
<tr>
<td>TLS13</td>
<td>0</td>
<td>4</td>
<td>2.8</td>
<td>1.1</td>
<td>-0.8</td>
<td>-0.1</td>
</tr>
<tr>
<td>TLS14</td>
<td>0</td>
<td>4</td>
<td>2.9</td>
<td>1.1</td>
<td>-0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>TLS15</td>
<td>0</td>
<td>4</td>
<td>2.4</td>
<td>1.3</td>
<td>-0.4</td>
<td>-0.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>TLS16</td>
<td>0</td>
<td>4</td>
<td>2.6</td>
<td>1.1</td>
<td>-0.6</td>
<td>-0.3</td>
</tr>
<tr>
<td>TLS17</td>
<td>0</td>
<td>4</td>
<td>2.6</td>
<td>1.2</td>
<td>-0.7</td>
<td>-0.3</td>
</tr>
<tr>
<td>TLS18</td>
<td>0</td>
<td>4</td>
<td>2.7</td>
<td>1.1</td>
<td>-0.6</td>
<td>-0.3</td>
</tr>
<tr>
<td>TLS19</td>
<td>0</td>
<td>4</td>
<td>2.8</td>
<td>1.1</td>
<td>-0.7</td>
<td>-0.2</td>
</tr>
<tr>
<td>TLS20</td>
<td>0</td>
<td>4</td>
<td>3.1</td>
<td>1.0</td>
<td>-1.0</td>
<td>0.4</td>
</tr>
<tr>
<td>POP1</td>
<td>1</td>
<td>5</td>
<td>3.6</td>
<td>1.2</td>
<td>-0.5</td>
<td>-0.7</td>
</tr>
<tr>
<td>POP2</td>
<td>1</td>
<td>5</td>
<td>3.6</td>
<td>1.2</td>
<td>-0.4</td>
<td>-0.8</td>
</tr>
<tr>
<td>POP3</td>
<td>1</td>
<td>5</td>
<td>3.7</td>
<td>1.2</td>
<td>-0.6</td>
<td>-0.8</td>
</tr>
<tr>
<td>POP4</td>
<td>1</td>
<td>5</td>
<td>3.7</td>
<td>1.2</td>
<td>-0.6</td>
<td>-0.6</td>
</tr>
<tr>
<td>POP5</td>
<td>1</td>
<td>5</td>
<td>3.7</td>
<td>1.2</td>
<td>-0.6</td>
<td>-0.5</td>
</tr>
<tr>
<td>POP6</td>
<td>1</td>
<td>5</td>
<td>3.7</td>
<td>1.3</td>
<td>-0.6</td>
<td>-0.6</td>
</tr>
</tbody>
</table>
APPENDIX D

OUTPUT OF EXPLORATORY FACTOR ANALYSIS
<table>
<thead>
<tr>
<th>Component</th>
<th>TLS6</th>
<th>TLS7</th>
<th>TLS14</th>
<th>TLS4</th>
<th>TLS8</th>
<th>TLS13</th>
<th>TLS5</th>
<th>TLS20</th>
<th>TLS12</th>
<th>TLS11</th>
<th>TLS19</th>
<th>TLS1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component</td>
<td>Talks enthusiastically about what needs to be accomplished</td>
<td>Specifies the importance of having a strong sense of purpose</td>
<td>Articulates a compelling vision of the future (IM)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Component</td>
<td>0.74</td>
<td>0.73</td>
<td>0.68</td>
<td>0.66</td>
<td>0.62</td>
<td>0.59</td>
<td>0.58</td>
<td>0.55</td>
<td>0.55</td>
<td>0.55</td>
<td>0.53</td>
<td></td>
</tr>
<tr>
<td>Component</td>
<td>TLS9</td>
<td>0.52</td>
<td>0.59</td>
<td>0.56</td>
<td>0.47</td>
<td>0.47</td>
<td>0.47</td>
<td>0.47</td>
<td>0.47</td>
<td>0.47</td>
<td>0.47</td>
<td>0.47</td>
</tr>
<tr>
<td>Component</td>
<td>0.37</td>
<td>0.49</td>
<td>0.59</td>
<td>0.56</td>
<td>0.56</td>
<td>0.56</td>
<td>0.56</td>
<td>0.56</td>
<td>0.56</td>
<td>0.56</td>
<td>0.56</td>
<td>0.56</td>
</tr>
<tr>
<td>Component</td>
<td>PSM2</td>
<td>The “give and take” of public policy-making does not appeal</td>
<td>PSM3</td>
<td>I don’t care much for politicians.</td>
<td>PSM1</td>
<td>Politics is a dirty word.</td>
<td>PSM10</td>
<td>I have little compassion for people in need who are unwilling</td>
<td>PSM8</td>
<td>It is difficult for me to contain my feelings when seeing people</td>
<td>PSM9</td>
<td>I am often reminded by daily events about how dependent</td>
</tr>
<tr>
<td>Component</td>
<td>0.80</td>
<td>0.71</td>
<td>0.70</td>
<td>0.75</td>
<td>0.68</td>
<td>0.63</td>
<td>0.60</td>
<td>0.56</td>
<td>0.54</td>
<td>0.35</td>
<td>0.48</td>
<td></td>
</tr>
</tbody>
</table>

**Extraction Method:** Principal Component Analysis.

**Rotation Method:** Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.
APPENDIX E

PERCENTAGE OF VARIANCE EXPLAINED BY FACTORS
<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalues</th>
<th>% of Variance</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.02</td>
<td>11.81</td>
<td>11.81</td>
</tr>
<tr>
<td>2</td>
<td>4.63</td>
<td>9.08</td>
<td>20.88</td>
</tr>
<tr>
<td>3</td>
<td>4.02</td>
<td>7.88</td>
<td>28.76</td>
</tr>
<tr>
<td>4</td>
<td>3.58</td>
<td>7.01</td>
<td>35.77</td>
</tr>
<tr>
<td>5</td>
<td>2.24</td>
<td>4.40</td>
<td>40.17</td>
</tr>
<tr>
<td>6</td>
<td>2.21</td>
<td>4.33</td>
<td>44.50</td>
</tr>
<tr>
<td>7</td>
<td>1.80</td>
<td>3.52</td>
<td>48.03</td>
</tr>
<tr>
<td>8</td>
<td>1.79</td>
<td>3.51</td>
<td>51.53</td>
</tr>
<tr>
<td>9</td>
<td>1.72</td>
<td>3.37</td>
<td>54.91</td>
</tr>
</tbody>
</table>
APPENDIX F

DETAILED SEM MODEL
APPENDIX G

DETAILED SEM MODEL BY GENDER: FEMALES AND MALES
APPENDIX H

DETAILED SEM MODELS BY EMPLOYEE MAIN ACTIVITY: SERVICE AREA AND ADMINISTRATORS
APPENDIX I

DETAILED SEM MODELS BY LEVEL OF GOVERNMENT: LOCAL GOVERNMENT EMPLOYEES AND STATE GOVERNMENT EMPLOYEES
APPENDIX J

INSTITUTIONAL REVIEW BOARD
November 19, 2010

Dr. Simon Andrew  
Department of Public Administration  
University of North Texas  
RE: Human Subjects Application No. 10-481

Dear Dr. Andrew:

In accordance with 45 CFR Part 46 Section 46.101, your study titled “Organizational Citizenship Behaviors Among Public Employees in Guadalajara Metropolitan Area, Mexico” has been determined to qualify for an exemption from further review by the UNT Institutional Review Board (IRB).

Enclosed is the consent document with stamped IRB approval. Please copy and use this form only for your study subjects.

No changes may be made to your study’s procedures or forms without prior written approval from the UNT IRB. Please contact Jordan Harmon, Research Compliance Analyst, ext. 3940, if you wish to make any such changes. Any changes to your procedures or forms after 3 years will require completion of a new IRB application.

We wish you success with your study.

Sincerely,

Patricia L. Kaminski, Ph.D.  
Associate Professor  
Chair, Institutional Review Board

PK, jh
PUBLIC EMPLOYEES’ PERCEPTIONS SURVEY

Informed Consent Notice

The purpose of this research is to understand the perceptions and attitudes of public employees regarding leadership styles, citizenship behaviors, and organizational performance. This research is also designed to understand public employees’ motivations to serve in the public sector. Although this study is not expected to be of any direct benefit to you, your PARTICIPATION IS EXPECTED TO BE VERY HELPFUL FOR PUBLIC ADMINISTRATION STUDIES and for the current study especially as it relates to an understanding of HOW TO IMPROVE PUBLIC SERVICE PERFORMANCE.

You are being asked to respond to several questions that will take approximately 20 minutes of your time. Your individual responses will be held confidential in a secure place of the University of Guadalajara. Only aggregate information will be reported. No raw or record data will be provided to your institution. Answering the questions in the survey involves no foreseeable risks. Participation is voluntary and you have the right to stop at any time. By responding to the questions you are giving consent to participate and confirm that you are at least 18 years old.

If you have any questions regarding this study, please contact:

Simon A. Andrew, Ph.D.
Department of Public Administration
University of North Texas
P.O. Box 310617
Denton, TX 76203-0617
Tel: (940) 565-4982 or FAX: (940) 565-4466
Email: sandrew@unt.edu

Filadelfo León Cázares, Ph.D. Candidate
Department of Quantitative Methods
University of Guadalajara
Periférico Norte 799, Modulo M
Zapopan, Jal. 45100
Tel: (33) 3770-3300 Ext. 5223
Email: filadelfoleoncazares@my.unt.edu

This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

APPROVED BY THE UNT IRB

DATE: [Signature]
ENCUESTA SOBRE LAS PERCEPCIONES DE LOS SERVIDORES PUBLICOS

Carta de consentimiento para participar en el estudio

El propósito de esta investigación es identificar y entender las percepciones y actitudes de los servidores públicos respecto al estilo de liderazgo en la dependencia así como los motivos para trabajar en el sector público. Aun cuando su participación no implica un beneficio directo para usted, si SE ESPERA QUE AYUDE A ESTUDIAR LA ADMINISTRACION PUBLICA, en particular para este estudio sobre COMO MEJORAR EL DESEMPEÑO DEL SECTOR PUBLICO.

Se le pedirá que responda una encuesta que no le tomará más de 20 minutos de su tiempo. La información que usted nos proporcione será clasificada como confidencial y estará en un lugar seguro de la universidad de Guadalajara. La información será reportada solamente en forma agregada. Ningún dato será proporcionado a su institución. Respondiendo a la encuesta no le representa riesgos. Su participación es voluntaria y usted puede suspenderla en cualquier momento sin ninguna pregunta. Si usted responde a la encuesta, usted está dando el consentimiento para participar y además asegurando que usted es mayor de 18 años.

Si tiene cualquier pregunta respecto a este estudio por favor contacte a:

Simon A. Andrew, Ph.D.
Department of Public Administration
University of North Texas
P.O. Box 310617
Denton, TX 76203-0617
Tel: (940) 565-4982 or FAX: (940) 565-4466
Email: sandrew@unt.edu

Filadelfo León Czáres, Ph.D. Candidate
Department of Quantitative Methods
University of Guadalajara
Periférico Norte 799, Modulo M
Zapopan, Jal. 45100
Tel: (33) 3770-3300 Ext. 5223
Email: filadelfoleoncazares@my.unt.edu

Este estudio ha sido revisado y aprobado por the UNT Institutional Review Board (IRB). Esta institución puede ser contactada al tel. (940) 565-3940, para cualquier pregunta respecto a los derechos de las personas que proporcionan información sobre esta investigación.

Si usted lo desea, nosotros podemos enviarle una copia de la autorización por correo electrónico.

APPROVED BY THE UNT IRB

DATE: 11/20/10
REFERENCES


and specification error in confirmatory factor analysis. Psychological Methods, 1(1), 16-29.


Perry, S. (1997). Male-female social relationships in wild white-faced capuchin monkeys, cebus


