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Public Service Motivation, Years of Public Service, and Distributed Leadership in
Government: A Moderation Analysis

Submitted to Southeastern University

Jannetides College of Business, Communication, and Leadership

In partial fulfillment of the requirements
for the degree of
Doctor of Philosophy in Organizational Leadership

James Punchard

March 2023

Jannetides College of Business, Communication, and Leadership
Southeastern University

This is to certify that the dissertation prepared by:

James Punchard

titled

**PUBLIC SERVICE MOTIVATION, YEARS OF PUBLIC SERVICE, AND
DISTRIBUTED LEADERSHIP IN GOVERNMENT:**

A MODERATION ANALYSIS

Has been approved by his committee as satisfactory completion of the dissertation
requirement for the degree of Doctor of Philosophy

Approved By:

Joshua Henson, Ph.D., Chair

Jannetides College of Business, Communication, and Leadership

Thomas Gollery, Ph.D., Methodologist

College of Education

Paul Boardman, Ph.D., Committee Member

Arizona State University

Southeastern University Institutional Review Board Approval:

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Abstract

This dissertation was an exploration of the effect that public service motivation (PSM) has on leaders' distributive leadership style (DLS). Years of service as a leader in government for more than 5 years managing five or more employees was considered as a moderating variable, with the expectation that as years of service increased, the moderating affect it has on the relationship between PSM and DLS would also increase. This was a cross-sectional, quantitative research project employing a moderation model to address the extent to which years of public service moderate the potential statistical relationship between the distributed leadership style and public service motivation. The sample was purposively selected, the method of data collection was an online survey, and the method of data analysis was multiple regression analysis. The research questions were (a) To what extent does PSM covary with the distributed leadership style among public sector managers? and (b) To what extent does years of service moderate the extent to which PSM covaries with the distributed leadership style among public sector managers? The key findings included a statistically significant relationship between PSM and DLS, and years of service having no statistically significant relationship with PSM, directly or indirectly. There was a significant relationship regarding employees with 21 or more years of service, and moderation of PSM and DLS, indicating that employees with 21 or more years with high levels of PSM may prefer DLS. The implications of these findings include that PSM could be an indicator of DLS among employees, these research findings could assist decision-making regarding hiring and promoting public sector employees to managerial positions and as PSM was considered to have a positive and statistically significant relationship with the distributed leadership style, the suggestion that individuals who are highly motivated to serve the public are relatively willing to distribute their leadership authorities—even if just informally—can ensure the efficient and effective provision of public goods and services.

Keywords: public service motivation, distributed leadership, government, years of service

Dedication

Dedicated to all government employees who work tirelessly toward public service and the people they serve, give more than they have to give, for little pay or accolade, and inspire others to selfless service. To Kristen Best, who so perfectly epitomizes all those employees in character, work ethic, and public service spirit. Also, to my children who endured years of watching the work that went into this journey, and never stopped smiling.

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Table of Contents

Abstract.....	iii
Dedication.....	iv
Acknowledgements.....	v
List of Tables.....	ix
List of Figures	x
Chapter 1 – Introduction	1
Statement of the Problem	2
Purpose of the Study	4
Research Questions and Hypotheses	4
Significance of the Research.....	5
Conceptual Framework	5
Methodology	7
Sample	7
Data Collection	8
Data Analysis	8
Ethical Considerations	8
Scope and Limitations	9
Definition of Terms.....	10
Distributed Leadership Style	10
Public Service Motivation.....	10
Summary	10
Chapter 2 – Literature Review.....	12
A Brief History of the Study of Worker Motivation in Government	12
Search Strategy.....	14
Studies of Public Service Motivation	15
Public Service Motivation as an Independent Variable	15
Public Service Motivation as a Dependent Variable.....	18
Leadership Style and Public Service Motivation.....	20
Studies of Distributed Leadership Style	23
Studies of Distributed Leadership in Business	25

Studies of Distributed Leadership in Government and Nonprofits	26
Summary	28
Chapter 3 – Methodology.....	30
Description of Methodology	30
Participants	31
Statistical Power for Sample Size	31
Research Instrumentation.....	32
Procedures	33
Measures for Ethical Treatment.....	34
Research Questions	35
Hypotheses.....	35
Data Cleaning.....	35
Data Analysis	36
Summary	37
Chapter 4 – Results	38
Descriptive Statistics: Survey Item Response Set	38
Internal Reliability.....	39
Findings by Research Question.....	40
Research Question 1	41
Research Question 2	41
Simple Slopes Analysis	44
Summary	44
Chapter 5 – Discussion	46
Review of Methodology.....	46
Summary of Results	47
Discussion by Research Question	48
Research Question 1	48
Research Question 2	50
Study Limitations.....	50
Implications for Future Practice.....	51
Recommendations for Future Research.....	52

Summary	53
References.....	55
Appendix.....	68

List of Tables

Table 1	33
Table 2	38
Table 3	39
Table 4	40
Table 5	40
Table 6	40
Table 7	41
Table 8	43
Table 9	43
Table 10	44

List of Figures

Figure 1.....5
Figure 2.....32

Chapter 1 – Introduction

In the absence of many of the formal authorities enjoyed by their private sector counterparts, public sector managers oftentimes have used different leadership styles to coordinate the behaviors of employees to achieve workday objectives and long-term goals of their organizations (Moynihan et al., 2013; Park & Rainey, 2008). Public sector managers have demonstrated the full gamut of leadership styles, on a contingency basis, based on whether the focal organization is undergoing organizational change and innovation (Ponomariov et al., 2021). During periods of organizational change and innovation, such as when federal agencies had to design and implement performance evaluations in response to the 1993 Government Performance and Results Act and GPRA Modernization Act of 2010, public sector managers relied on the transformational leadership style to motivate employees to adapt to a new short-run results-based organizational culture (Moynihan et al., 2013). During that and other periods of organizational innovation and change in the U.S. government, all four transformational leadership style behaviors—intellectual stimulation, idealized influence, inspirational motivation, and individual consideration—have been exhibited to motivate employees to comply with, if not help to implement, change and innovation (Moynihan et al., 2013; Park & Rainey, 2008). In contrast, during periods of status quo public service provision and policy implementation, public sector managers have been found in survey-based research to rely on the transactional leadership style to motivate employees to perform their workday tasks and duties (Ponomariov et al., 2021).

Increasingly, public sector managers must delegate their authorities, informally, to ensure that the most appropriate combinations of human capital are involved in decision making (Kjeldsen, 2019). Whereas such delegation can occur formally in the private sector by way of matrix management and similar structuration approaches, the General Schedule (GS) for positions and pay in the United States prohibit public managers from doing so formally (de Sercey & Harasin, 2005). Yet, public managers have shown to do so informally by way of the distributed style of leadership (Chreim et al., 2010; Jonasson et al., 2018). The distributed style of leadership entails the informal involvement of employees in

decision making when the employees have the background and expertise to help arrive at the best decision given a set of circumstances (Bolden, 2011). The distributed leadership style has been acknowledged as increasingly important in public sector organizations in the wake of organizational reforms resulting from transitions of power from one political party to another (Kjeldsen, 2019). The distributed leadership style is also fundamental to sound decision making in response to complex, if not “wicked” (or perpetually changing) public policy problems (Game et al., 2014). Therefore, the purpose of this cross-sectional quantitative study was to examine the extent to which the distributed leadership style was related to the motivation of public servants.

Statement of the Problem

The problem of limited managerial authority in government is bifurcated. On one hand, there is the infamous—and somewhat exaggerated—inability of public sector managers to reprimand or fire underperforming employees (Kaufmann et al., 2019; Kloot & Martin, 2000). On the other hand, public sector managers have limited authority to coordinate the human capital required to provide public goods and services in as efficient and effective manner as possible (Bozeman, 2000; Kaufmann et al., 2019). In both cases, the problem lies with the centralization of decision making in government bureaucracies (Bozeman, 2000; Kaufmann et al., 2019). For example, the U.S. General Schedule for position classification and pay for public sector employees prohibits public sector managers from promoting a high-performing employee more than one level within their current classification (U.S. Office of Personnel Management, 2022). To make such a “promotion,” the public manager would have to be authorized by leadership at the department levels to publicly advertise a new, open-competition, position at the desired level for the focal employee, who then would have to apply and compete for the position (Kaufmann et al., 2019).

The problem of limited managerial authority in government extends to limiting public sector managers’ abilities to convene the human capital required for the effective and efficient provision of public goods and services (Ammons & Roenigk, 2020). For example, at the federal level in the United States, the General

Schedule can prohibit public sector managers from formally delegating tasks and duties to the personnel with best background and training for a focal task or project (Blom et al., 2021). Whereas such delegation can occur formally in the private sector by way of matrix management and similar structural approaches, the General Schedule implicitly prohibits public sector managers from formally coordinating personnel from across organizational units and/or from allowing personnel to exceed their position classification in their workday tasks and duties (de Sercey & Harasin, 2005).

The problem of limited managerial authority in government can lead to negative outcomes for the target audiences of public programs and policies (Ammons & Roenigk, 2020; Blom et al., 2021). The research literature on “red tape” in government addresses the limits that bureaucracy places on managerial discretion (Bozeman, 2000; Ponomariov & Boardman, 2011). Perceptions of red tape have been demonstrated to limit managerial authority in government and slow the provision and hinder the effectiveness of public goods and services (Brewer & Walker, 2010; Jacobsen & Jakobsen, 2018).

Perceptions of red tape as the managerial inability to innovate by convening unique sets of human capital for coordinated problem-solving, also has had negative consequences at the employee level. Public service motivation (PSM), which is a government employee’s dedication to a career in public service, negatively covaries with limited managerial authority in government (Borst et al., 2020; Kjeldsen & Hansen, 2018). PSM has been demonstrated to be fundamental to job involvement, work engagement, and organizational commitment for public sector employees (Blom et al., 2021). In turn, PSM can lower turnover intention amongst government employees (Brunetto et al., 2017).

Commensurate with the public administration problem of limited managerial discretion to formally share responsibilities in such a way that helps to circumvent the inefficiencies of government bureaucracies was the lack of understanding of the distributed leadership practices of public sector managers (Game et al., 2014). Although the distributed leadership style has been demonstrated to positively affect performance in government employees, there is a

lack of research on the predictors of distributed leadership behaviors on the part of public sector managers (Jakobsen et al., 2021). Because the distributed style of leadership is relatively selfless in terms of the allocation of an individual leaders' decision-making authority informally to others when appropriate (Game et al., 2014), the most commensurate worker motivation in the literature on public sector managers seemed to be PSM, which itself was a relatively selfless form of work motivation (Piatak & Holt, 2020).

Purpose of the Study

The purpose of this cross-sectional quantitative research study was to address the extent to which the distributed style of leadership was related to PSM. Moreover, the researcher employed a moderation model to address the extent to which years of public service moderated the potential statistical relationship between the distributed leadership style and public service motivation. The sample was purposively selected using a third-party service (SurveyMonkey). The method of data collection was an online survey using a third-party service (e.g., SurveyMonkey). The data analysis technique was multiple regression analysis.

Research Questions and Hypotheses

The purpose of this cross-sectional quantitative research was to address the extent to which the distributed style of leadership covaried with PSM. Fulfilling this purpose helped to address the problem negative public policy and service provision outcomes due to limited authority amongst managers in government (Ammons & Roenigk, 2020; Blom et al., 2021). The research questions and hypotheses for the independent, moderator, and dependent variables were as follows:

RQ1: To what extent does PSM covary with the distributed leadership style among public sector managers?

H1: As PSM increases, distributed leadership increases, *ceteris paribus*.

RQ2: To what extent does years of service moderate the extent to which PSM covaries with the distributed leadership style among public sector managers?

H2: Years of public service will positively moderate covariation between PSM and distributed leadership style increases, *ceteris paribus*.

Significance of the Research

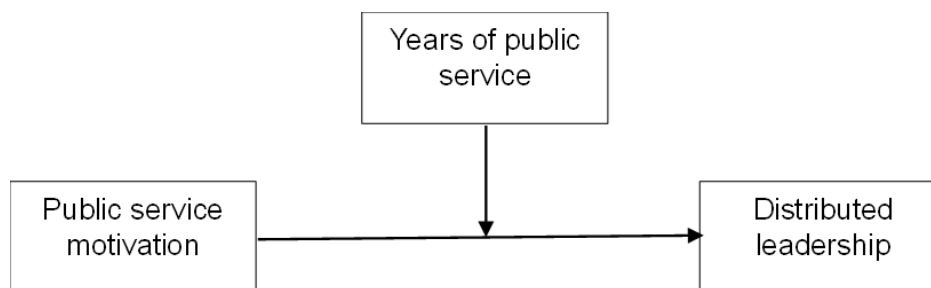
The findings of this research study may inform decision making regarding the hiring and promotion of public sector employees to managerial positions. If PSM was found to be a positive and statistically significant predictor of the distributed leadership style, it would suggest that individuals who are highly motivated to serve the public are relatively willing to distribute their leadership authorities, even if just informally, to ensure the efficient and effective provision of public goods and services (Molnar et al., 2018). Moreover, a positive and significant result would demonstrate the extent that public sector managers distributed style of leadership is aligned with their own public service motivation and therefore see the distribution of leadership authorities, informally, as fundamental to the effective and efficient provision of public goods and services (Molnar et al., 2018).

Conceptual Framework

The conceptual framework for the study included the use of a distributed leadership style as the dependent variable, PSM as an independent variable, and years of public service as a moderating independent variable. Figure 1 depicts the predicted direct and indirect effects, and the direction thereof, for the conceptual framework.

Figure 1

A Moderation Model for PSM, Distributed Leadership, and Years of Public Service



PSM has been defined “the motivational force that induces individuals to perform meaningful public service” (Brewer & Selden, 1998, p. 417). The debate over the correctness of this and competing definitions notwithstanding (Bozeman & Su, 2015; Vandenabeele et al., 2018), PSM has a valid and reliable survey measure (Perry, 1996; Vandenabeele et al., 2018). Equally important to the current study, since its inception, PSM has continually been identified as the impetus for variation in public sector managers’ leadership styles in order to align the behaviors and goals of employees with the objectives and mission of the organization (Hameduddin & Engbers, 2022). Specifically, PSM has been demonstrated empirically to covary with the transformational, transactional, servant, laissez-faire, and authentic leadership styles in government (Hameduddin & Engbers, 2022). In the face of the increasing organizational and political complexity of public service provision and policy implementation, there have been calls for the empirical study of the relationship between PSM and the distributed style of leadership in government agencies (Kjeldsen, 2019).

The distributed leadership style occurs when leadership functions are shared by a manager with their employees to induce collaboration and participatory decision making (Gronn, 2002). The concept of the distributed leadership style was borne from the work of Gronn and Spillane et al. in applying sociocultural activity theory to leadership and management in public schools. In short, distributed leadership, as an operational measure, is an effort to measure the extent to which and different ways in which leaders share their decision-making authorities in the interest of achieving workday tasks, as well as longer-term goals and organizational objectives (Bolden, 2011). The distributed leadership style has been shown to enhance employee motivation and performance at the individual and organizational levels (Belhiti et al., 2020; Bolden, 2011).

One notable feature of the conceptual framework presented in Figure 1 is the direction of effect between PSM and the distributed leadership style. When the unit of observation is the public sector employee (or follower), not the public sector manager (or leader), then the direction of effect is from leadership style, distributed leadership or otherwise, to PSM. When the unit of observation is the leader (or

public sector manager) and not the follower (or public sector employee), the direction of effect is from PSM to leadership style, distributed leadership or otherwise (Hameduddin & Engbers, 2022). Accordingly, the conceptual framework was intended to guide an empirical examination of the extent to which high levels of PSM on the part of public sector managers sees managers relinquishing some of their decision-making authorities, even if informally. The chief assumption of the framework therefore was that public sector managers with high levels of PSM will do so because they put the attainment of objectives and goals in the public interest ahead of their own egos, which is similar to the assumptions underlying studies of altruistic behavior (Mascall et al., 2009).

Methodology

The research design of the current study was quantitative, cross-sectional, and non-experimental. The design was appropriate because the purpose of the study was to test the statistical relationship between two or more variables that are operationalized quantitatively.

Sample

The unit of observation was the public sector manager. The sample selection method was purposive. The purposive selection criteria included the moderating variable, years of service, to ensure sufficient variation for inferential statistical analysis. Another purposive selection criterion was the type of government organization, as the provision of public goods and services can vary in complexity, which means that the need for the distributed leadership style is to achieve the goals and objectives of public sector organizations can vary (Bolden, 2011). The study participant inclusion criterion was that the study participant has overseen five or more employees for the past 5 years or longer insofar that the target population is public administrators (Ponomariov & Boardman, 2011). The sampling frame from which study participants was purposively selected was developed by a third-party service, such as SurveyMonkey or Qualtrics. The sample size was determined by an *a priori* statistical power analysis.

Data Collection

The method of data collection was an online survey with closed-ended questions requesting Likert-type responses from study participants. The independent variable, PSM, was operationalized with the multi-item scale developed and validated by Perry (1996). Perry validated four subscales of PSM from a list of 24 items with the coefficient alphas for the four subscales ranging from .69 to .74. The dependent variable, distributed leadership, was operationalized with the multi-item scale developed and validated by Jønsson et al. (2016), albeit adapted for a public sector organizational context. Jønsson et al. validated three subscales of distributed leadership from a list of seven items with the coefficient alphas for the three subscales ranging from .80 to .84. The years of public service was measured with a self-report of the number of consecutive years the study participant has worked in their public sector career. Data on participants' ethnicity, gender identity, and education level were also collected via self-reports and operationalized as a series of categorical variables.

Data Analysis

The method of hypothesis testing was multiple regression. The specific multiple regression technique was determined by tests of the variables specified in the quantitative model for linearity, normality, and homoscedasticity. In the case that the variable was linear, was normally distributed, and demonstrated homogeneity of variances, ordinary least squares regression would be used to test the hypotheses. If this was not the case, then either the data would be transformed or alternate regression analysis techniques were considered (e.g., negative binomial, Poisson). The hypothesis tests were followed by a post hoc power analysis and variance inflation factor test for multicollinearity (Thompson et al., 2017).

Ethical Considerations

This study was implemented per the ethical guidelines of the Belmont Report (U.S. Department of Health and Human Services, 1979). To do so, first, an application was sent to the Institutional Review Board (IRB) for review, potential revision, and eventual approval of data collected from a purposive sample of public

sector managers. To gain IRB approval, as presented in Chapter 3, specific steps were explicated describing how the informed consent of study participants was solicited and the confidentiality of consenting participants was ensured. For example, the survey instrument did not ask participants for personally identifiable data beyond their age, gender identity, and ethnicity. Moreover, the eventual dataset was scrubbed of email addresses used to send the survey link to the study participants. Once data collection was completed and the data was anonymized, the dataset was stored on an encrypted hard drive that is password-protected and not saved to the Cloud. The sole use of the encrypted hard drive was the storage of the dataset for this dissertation study. Only the researcher knew the password for and had access to the physical hard drive, which was stored in a locked file cabinet owned by the researcher and stored in the researcher's home office. Whenever the data were analyzed, the history of the analysis was not saved. After the encrypted hard drive has been stored for 5 years in a locked file cabinet, it will be destroyed.

Scope and Limitations

The scope of the current study was determined by the sampling frame, conceptual framework, and research design (Trochim & Donnelly, 2001). The sampling frame was limited to public sector managers who were currently full-time employees of government at any level in the United States, had worked in government for at least 5 years, and oversaw five or more employees. The conceptual framework included the concepts of PSM, distributed leadership style, and years of public service. These concepts were the scope of data collection for the study, demographic questions notwithstanding. The research design was quantitative and predictive. Therefore, the scope of the data analysis was multiple regression, preceded by tests for linearity, normality, and homoscedasticity to determine the appropriate regression technique for the variables in the moderation model.

The limitations of the study were a function of the sampling and data collection methods (Trochim & Donnelly, 2001). Because the sampling was purposive, the results were not generalizable to the population of public sector managers in the United States. Because the dataset was cross-sectional, another

limitation of the study was simultaneity bias and the threats to internal validity that it implies, specifically the history and maturation threats to internal validity. A third limitation was mono-source bias, as all of the data for the study were collected using a single survey instrument. A fourth limitation was social response bias, particularly regarding the PSM scale (Kim & Kim, 2016). All of these limitations are common to survey-based research in the social sciences.

Definition of Terms

Distributed Leadership Style

The distributed leadership style occurs when leadership functions are shared by a manager with their employees to induce collaboration and participatory decision making (Gronn, 2002).

Public Service Motivation

Public service motivation is “the motivational force that induces individuals to perform meaningful public service” (Brewer & Selden, 1998, p. 417).

Summary

The distributed leadership style is a way for public sector managers to circumnavigate the bureaucracy of government to involve employees in the provision of public goods and services in such a way that results in more effective and efficient governance (Molnar et al., 2018). Although there is research on the effects of distributed leadership on the performance of government employees, there have been no studies on what predicts the distributed leadership style on the part of public sector managers (Jakobsen et al., 2021). Due to the positive performance impacts on government employees of public sector managers using the distributed leadership style, the study used survey data to model PSM as a predictor of the distributed leadership style, with years of service as a moderating variable. PSM was chosen as the specific motivation for distributed leadership on the part of public sector managers because it, as a concept, is focused on the efficient and effective provision of public goods and services. This conceptual emphasis is similar to that of distributed leadership (Game et al., 2014; Piatak & Holt, 2020).

The remainder of this dissertation proposal is as follows. Chapter 2 includes an explication of the conceptual framework, which is a moderation model with PSM as the independent variable, distributed leadership style as the dependent variable, and years of public service as the moderator. The subsection of the chapter on the conceptual framework includes explanation of the research hypotheses for the current study. The majority of Chapter 2 is a review of the empirical literature on PSM and the distributed leadership style. The review of each of these literatures is organized by model specification and work sector (e.g., public, private), respectively. Chapter 2 concludes with a discussion of the knowledge gap that the researcher addressed in the current study. The knowledge gap was expressed by the conceptual model and fulfilled with the quantitative model for the current study presented in Chapter 3. In Chapter 3, the researcher details the study's methodology and designing, including procedures for sampling, data collection, and data analysis.

Chapter 2 – Literature Review

The purpose of this cross-sectional quantitative research study was to address the extent to which the distributed style of leadership covaried with public service motivation. In this chapter, the researcher reviews the empirical research that was related to the conceptual framework for the study. The conceptual framework included public service motivation as the independent variable and distributed leadership as the dependent variable, with years of public service as a moderating variable. Accordingly, the research literature on PSM and distributed leadership were reviewed. The chapter begins with an historical overview of the study of work motivation amongst government workers, including but not limited to public sector managers, which was the unit of observation for the study. Next, the empirical research on PSM is reviewed, followed by a review of the research literature on the distributed leadership style. The chapter concludes with a summary discussion of the knowledge gap that will be addressed, at least in part, by the selected design and methods for the current study. The conclusion to this chapter provides a segue to Chapter 3, which presents the selected research design and methods for this study.

A Brief History of the Study of Worker Motivation in Government

The study of work motivation amongst government employees was an offshoot of the studies of worker motivation in the private sector. Rainey (2009) observed that the early studies of worker motivation in the public sector emphasized Barnard's (1938) specific and general incentives, Simon's (1948) distinction between executives' and subordinates' motives, as well as the more granular derivations of Barnard and Simon by Herzberg et al., Lawler, and Wilson. Accordingly, the early studies of worker motivation in government by Kilpatrick et al. (1964) and Sikula (1973) emphasized the distinction between extrinsic and intrinsic motivations of both street-level bureaucrats and public sector managers alike.

The study of work motivation in government however did not become a substantive and substantial subset of public administration scholarship until the

public service ethos that saw the establishment of schools of public administration on American campuses in the 1960s waned and, by the 1980s, public administration schools became threatened by potential absorption into business schools (Bowman & Thompson, 2013; Bozeman, 2004). Until that time, studies like those by Kilpatrick et al. (1964) and Sikula (1973) were but standard studies of worker motivation using oft-used measures thereof (see the literature review below for details), albeit for what was then the relatively unique context and samples of government agencies and government workers, respectively (Bozeman, 2004; Rainey, 2009). In response, public administration scholars set out to distinguish the study of public sector organizations from that of private firms (Bowman & Thompson, 2013; Bozeman, 2004).

The extent to which public administration scholars (and schools) were successful at validly and reliably distinguishing the study of government organizations from that of private sector organizations notwithstanding (see Bozeman, 2004, for extended discussion), a component of the effort to do so was the distinction of the work motivations of managers working in government agencies from those working in for-profit businesses (Rainey, 2009). In their commentary on, and study of, public sector managers' work motivation, Kelman (1989), Lasko (1980), Perry and Wise (1990), Rainey (1982), and Wittmer (1991) all cited the early studies by Kilpatrick et al. (1964) and Sikula (1973). Specifically, the subset of the 1980s cohort of public administration scholars justified their study of work motivation in government as an area of inquiry that is conceptually distinct from the study of work motivation in the private sector (Rainey, 2009).

By the 1990s, the momentum of the notion that the study of worker motivation in the public sector is distinct from the study of worker motivation in the private sector saw the development of the PSM scale by Perry and Wise (1990). Unlike worker motivation scales used by business administration scholars, the dimensions of the PSM scale were, and remain, exclusively intrinsic: commitment to the public interest, compassion, self-sacrifice, and attraction to public affairs (Rainey, 2009). For sake of comparison, as a concept, PSM excludes Maslow's (1954) lower-order needs, McGregor's (1960) Theory X, and Herzberg's (1964)

hygiene factors. The one-sidedness of the concept of PSM has been criticized for this reason as an “elite” measure of worker motivation in government (Bozeman & Su, 2015; Vandenabeele et al., 2018).

Today, studies of PSM abound. There are hundreds of studies using some version of Perry and Wise’s (1990) original PSM scale, if not the original version, for data collection from samples of public sector managers in tens of countries spanning every continent except Antarctica (Marques, 2020). In addition, there have been numerous attempts to extend the concept of PSM to a new theory of worker motivation (e.g., Perry, 2000; Vandenabeele, 2007; Wang et al., 2020).

Search Strategy

The researcher searched the extant literature in multiple academic databases using keywords and phrases associated with the current study’s topic. The databases included AgeLine, ASCE Library, EconBiz, EconLit, Google Scholar, Jurn, Research Papers in Economics, and Scopus. The keywords and phrases used to search these databases included “factors impacted by public service motivation,” “impact of public service motivation on leadership style,” “impact of leadership style on public service motivation,” “public service motivation,” “PSM,” “distributed leadership,” “public manager motivation,” “public manager leadership style,” “public service motivation impact on organizational climate,” “direct relationship between public service motivation and improved employee attitudes,” and “interpersonal citizenship behaviors base on public service motivation.”

A total of 7,822 resources were found. The researcher removed all duplicates, then applied a set of inclusion criteria to the resources’ titles discarding those that did not meet these criteria. The requirements included (a) all resources were associated in some manner with the topic of a distributed style of leadership and public service motivation; (b) all resources were published in a peer-reviewed journal, by a reputable publishing house, on a noted government website, or through an academic institution; (c) all resources were written, published, or translated into English; and (d) at least 80% of the sources were published after 2018. The same process was applied to the remaining resources after reviewing the

abstracts, and then the entire study was read, with those not meeting the criteria also discarded. The final number of resources reviewed in this study was 103.

Studies of Public Service Motivation

The relationship between public service motivation and various outcomes has received a great deal of attention and scholarly interest (Borst et al., 2020; Kjeldsen, 2019; Kjeldsen & Hansen, 2018). Considered by experts as a standard that explains and measures the totality of an employee's reasons or desires to serve public interest and connecting their personal actions with this interest, PSM continues to be challenging for organizational leaders (Brewer & Walker, 2010; Kjeldsen, 2019; Pandey et al., 2008). The research related to PSM has been recognized as both an independent and dependent variable that impacts factors and is impacted by factors to develop the means for success within varied organizations.

Additionally, researchers have examined PSM for its direct and indirect relationships with its ability to improve delivery of improved attitudes of employees through measuring their interpersonal citizenship behaviors (Bozeman, 2000; Bozeman & Su, 2015; Perry & Wise, 1990). The current reviewed literature shows how PSM is both impacted and impacts factors for building improved employee behaviors that impact organizational success. The research overtly signifies such reasons associated with PSM attributing individual desire to serve public interest and observes intrinsic and extrinsic elements crucial for motivating employees. While the literature on public sector motivation and leadership related to research on this relatively selfless form of work motivation, scholars have explored multiple facets associated with the application and use including its impact on outcomes and the impact elements have on PSM (Miao et al., 2018; Piatak & Holt, 2020).

Public Service Motivation as an Independent Variable

The foundation of an organization consists of successful outcomes based on employee actions and behaviors. When leadership actions consistently negatively impact employees, an organization will remain unsuccessful in its industry.

Organizational leaders have recognized that having a motivated workforce delivers effective services to the public and imply the ability to regain popular trust in government was crucial (Breugh et al., 2018). The multifaceted term of PSM has researchers contributing to its literary development through assessing its predisposition for encouraging employees in many sectors. Clerkin and Cogburn (2012) stated that PSM is considered a needs-based motivation approach. Homberg et al. (2015) suggested that public service motivation is “a means to improve performance and overcome incentive problems in the public sector” (p. 711).

Of factors noted as crucial in terms of PSM implementation, researchers recognized the most imperative and successful of these included incentivizing, enjoyment, relatedness, sense of helping, pro-social motivation, and commitment (Piatak et al., 2021). Yet, the work of Borst et al. (2020) and Miao et al. (2018) showed that leadership style, organizational climate, the work structure, and the reward system were predominant factors in motivational methods.

Predominant in the public sector, researchers considered the application of PSM on the organization workforce, suggesting that the four dimensions, compassion, self-sacrifice, civic duty committing to the public interest, and attraction to policy making, should be used to increase reasons for employee retention; however, PSM has far-reaching attributes that go beyond simply retention purposes alone. Experts have asserted that motivating employees was found to influence improved efficiency within an organization while promoting a higher standard for public service quality (Borst et al., 2020; Miao et al., 2018).

Current researchers have examined the different programs public sector organizations have implemented to increase employee engagement (Hameduddin & Engbers, 2022; Hameduddin & Lee, 2021). Due to applying PSM, many organizational leaders recognized the predictors associated with this increase. Bashir et al. (2021), Borst et al. (2020), and Hameduddin and Lee (2021) cited that there was a noticeable improvement in employee engagement when leaders focused on improving work behaviors and attitudes. Public service motivation increased engagement by prompting employees to realize their work’s importance.

Leaders who promote innovative conduct with their employees also consider new methods to apply PSM to positively influence and enhance their employees' understanding of self-importance, competence, and necessity within the company. For example, Bashir et al. (2021) examined whether the impact of PSM increased employee engagement when leaders promoted the improvement of employee perception of the importance of their work.

Studies have indicated that for organizational leaders to innovate employee behavior, PSM must be part of the leadership training, with the express purpose of showing leaders how to establish motivating factors for their workforce (Chen et al., 2021; Miao et al., 2018). Researchers further examined the factors that encourage positive behaviors and attributes among employees finding those strong leadership abilities that include aggressive skills with PSM were significantly more successful in all leadership styles (Chen et al., 2021; Marques, 2020). Leadership roles play a significant part in applying PSM; however, researchers found that the impact could be positive or negative. Not all implemented PSM was positive, as some scholars signified (Chen et al., 2021). Whereas Marques (2020) and Pedersen et al. (2020) claimed only through positive leadership can PSM impact an employee's attitude towards the organization, Chen et al. (2021) recognized that even with one leader having positive attributes, a workforce often felt incompetent and dissatisfied in their job based on other leadership behaviors. The conjecture Chen et al. (2021) and Bashir et al. (2021) suggested that leadership roles throughout an organization must have some cohesion to impact the use of PSM on its employees.

Literature has demonstrated that PSM impacts multiple facets within an organization (Marques, 2020; Zubair et al., 2021). Researchers have divided opinions, however, regarding what specific factors affect an organization and what type of outcomes were produced from this impact (Breugh et al., 2018; Marques, 2020). Research has typically addressed the aspects of employee outcomes, organizational commitment, employee behavior, and performance. Additionally, many researchers have examined PSM disentangling motivation from job satisfaction (Breugh et al., 2018; Zubair et al., 2021). Breugh et al. (2018) went

one step further in their research and used PSM interchangeably with self-determination theory. The authors suggested that this theory has considerable temporal foci, and PSM was a singularly driven theory that impacted such drivers of employee behavior (Zubair et al., 2021).

Zubair et al. (2021) suggested that PSM was a consistent means for performance measurement when used as a tool to determine performance. The understanding that PSM focuses on workforce commitment within an organization emphasizes that business leaders have a potential tool to motivate their employees. Zubair et al. further commented that the types of motivation techniques in the public sector have been debated upon, compared to, and tested with mixed results. With these varied results, most experts Xu (2022) and Sun (2021) agreed with Zubair et al. (2021), noting that the differences in motivation techniques must be measured with the different leadership styles to determine if the context of outcomes was from the variable of PSM.

Reviewing PSM as an influencing factor in multiple studies focusing on job reward equity, social impact, service quality, political support, and affective commitment (Bashir et al., 2021; Sun, 2021; Wang et al., 2020; Zubair et al., 2021). Xu (2022) proposed that work motivation in the PSM multi-item measure was entirely based on self-determination theory; as such, the impact of all employee behaviors was affected by PSM. Both Xu and Wang et al. (2020) related that the supportiveness promoted by leaders in a work climate included an employee's perceived importance within the organization. Further, Wang et al. noted that the positive association from applied PSM had increased perceptions of being worthwhile in the company's purview. At the same time, Xu (2022) found the relatedness of PSM increased job satisfaction and higher retention.

Public Service Motivation as a Dependent Variable

Some researchers claimed public service motivation is only successful due to specific variables that created behavior changes in employees (Hur, 2018; Torfing, 2019). These variables included leadership style and patterns; the latter was noted as fundamental and one of the three necessary core elements that organizational leaders should recognize. Leadership patterns incorporate system

thinking, collaboration, and adaptivity but were noted as prevalent regarding PSM only as it impacted the outcomes. Literature is limited, however, on PSM effects on other variables. For example, researchers showed how the effects of PSM impacted collaborative efforts between leaders and employees (Crucke et al., 2022; Torfing, 2019), yet no studies examined how such collaboration affects PSM. Further, studies implied that PSM could only be effective when leaders were adaptive within their organization's culture or implemented partnerships successfully with employees (Torfing, 2019). Recent research suggested otherwise, with Crucke et al. (2022) and Hur (2018) finding that PSM was less rationalized through self-interest while being impacted through the employee-leader relationship.

The current scholarship has expanded significantly over the past several decades, with researchers exploring influencing factors affecting PSM. Perry and Wise (1990) assessed the impact that social, political, and functional (institutional) aspects had on PSM. Findings suggested that failure to recognize the importance of these factors and the need for motivational actions led to employees being discouraged and dissatisfied in their jobs. Additionally, researchers found ego depletion was often a result of negative or poor leadership in an organization, but when organizational leaders focus on creating a more positive organizational culture, PSM has a more significant impact on employee self-worth and value (Sun, 2021).

Researchers have claimed that the effect of leadership on PSM was often informed based on social learning theory because this theory implies that role modeling is critical when developing an employee's work behaviors (Sun, 2021; Vandenabeele et al., 2018). Experts have also suggested that leadership influences PSM and established causality, which was further proven necessary when providing a basis for rational intervention within an organization (Martin et al., 2020; Vandenabeele et al., 2018). Experts agreed that leadership does impact employee behavior, and the context of this leadership ability varies on this impact (Martin et al., 2020).

Leadership Style and Public Service Motivation

Leadership and motivation are linked, and as most experts have attested, the outcomes of motivational factors were often based on leadership style (Campbell, 2018). Several experts have acknowledged that the leadership style impacts PSM, with the most commonly agreed style being transformational leadership (Fareed & Su, 2022; Jensen & Bro, 2018). Jensen and Bro, and later Fareed and Su (2022), suggested that the motivation of public service employees was effective only with a strong leader guiding them. Findings from the examination of PSM and leadership discovered patterns of causality between PSM and leadership.

The leadership style of management affects everything within an organization. The identification of a leadership style according to the application of PSM often produces long-term socialization yet was noted as becoming moveable with immediate influences from a given leader (Hameduddin & Engbers, 2022). Such publications on leadership and PSM impact incorporated a fundamental correlation with ethics (Fareed & Su, 2022; Hameduddin & Engbers, 2022). Employee ethics constitute a moral code that guides an employee's conduct at the workplace. Motivation theories are beneficial for understanding why employees behave unethically. Based on reinforcement theory, people will demonstrate higher unethical behaviors if their unethical behaviors are followed by rewards or go unpunished. Ripoll (2018) claimed that organizations must recognize the need for a cohesive relationship between motivation and ethics. Researchers questioned why motivation led to ethical outcomes when clarification of the type of motivated employee was ignored (Belrhiti et al., 2020; Fareed & Su, 2022; Ripoll, 2018).

The findings of early studies on leadership and motivation suggested certain innate qualities of personality traits characterizing successful leaders (Moynihan et al., 2013; Perry & Wise, 1990). Comparatively, other researchers distinguished such qualities from unsuccessful leaders, with current scholarship illustrating how the role of a leader in any organization was only successful as far as their employees produced (Belrhiti et al., 2020). This idea from scholars suggested that leadership value was significant and associated with leadership style (Belrhiti et al., 2020; Hameduddin & Engbers, 2022). The importance of leadership style and its

relationship to PSM showed varied opinions on which leadership style was most congruent for the promotion of motivation within an organization. Experts have tentatively agreed, however, that a transactional leadership and servant leadership styles were most prominent in showing success for motivating factors (Perry & Wise, 1990).

As transactional leadership is related to the trade of information among followers and leaders, this model rewards followers for a given task and completed performance criteria. Transactional leadership validates the relationship between reward and performance and encourages followers to improve their performance (Nguyen et al., 2022; Thanh & Quang, 2022). Transactional leadership behavior centers on leadership efforts to delineate performance goals and the prizes related to meeting these desires. Those leaders who neglect to distinguish role objectives and instead develop unclear assignments are unlikely to be successful (Thanh & Quang, 2022). When completed with clarified roles and rewards, however, the leader develops positive relationships with his followers and reaches objectives for organizational success (Nguyen et al., 2022).

Even though studies have shown transactional and servant leadership providing valid and highly successful organizational outcomes, researchers also argued other leadership styles were favorably impacted by and to PSM. For example, Thanh and Quang (2022) provided data showing that the transformational leader, one of the most popular and utilized leadership styles, was strongly functional in effectively implementing PSM. Producing positive results using motivational skills was recognized as a baseline foundation for this leadership style due to the ability of the transformational leader to observe individual strengths connecting these to an organization's overall purpose and shared vision (Thanh & Quang, 2022). The fundamental premise of transformational leadership focuses on the increased motivation of the workforce (Nguyen et al., 2022). This type of leader uses their growth mindset to encourage employees to actively seek methods for improving their valuable assets with an overall combined attitude that the company is essential only because the employee is important. This leadership style is impacted by PSM and affects it (Fareed & Su, 2022; Nguyen et al., 2022).

Other researchers found servant leadership as cognizant of motivating a workforce. Servant leadership had been examined in terms of its application of PSM, with findings more successful than other leadership styles (Bayram & Zoubi, 2020; Tram & Truong, 2021). Servant leaders prioritize their workforce's greater good, which constitutes PSM significantly. Bayram and Zoubi (2020) investigated the relationship between servant leadership and PSM using examples from civil servants working in public organizations. The researcher's findings showed that PSM positively impacted PSM's seven dimensions of servant leadership, forgiveness, humility, standing back, integrity, courage, accountability, and empowerment. In the context of stewardship which differs from servant leadership, the researchers claimed there was no significant impact on PSM (Bayram & Zoubi, 2020).

While some experts claimed that autocratic leadership provided effectiveness in successfully completing a task or job due to the demands and outcomes expected, most researchers agreed that this type of leadership contributes more to a negative employee perspective (Caillier, 2020; O'Leary, 2019). The autocratic leader controls all decisions, taking no—or very little—express input from its workforce. Experts further noted that the autocratic leader has poor motivational skills, and PSM provided little constructive assistance in promoting employee loyalty, satisfaction, or desire for success (O'Leary, 2019).

Addressing the same notion as Bayram and Zoubi (2020), Tram and Truong (2021) suggested that because servant leadership factors were predictive of PSM, leadership influence should be improved. Noted in Tram and Truong's research, employees should perceive their organizational climate as friendly and secure. Leaders should also be prone to using extensive two-way communication exchanges, and leaders should acknowledge the likelihood of successful PSM implementation.

Tram and Truong (2021) further noted that leadership and organizational culture were entwined since a leader's behaviors and treatment of employees were impacted and influenced. These researchers claimed to improve an organization's performance; leaders should be able to adjust their leadership to lead the type of

culture that exists (Tram & Truong, 2021). Yet, many experts claimed that the role of leaders was predictive of the behaviors of their workforce (Hameduddin & Engbers, 2022; Miller-Mor-Attias & Vigoda-Gadot, 2021). These multiple opinions, perceptions, and considerations with PSM and its impact on the didactic experiences of leaders within organizations suggest the nuances and implications of PSM varies.

Studies of Distributed Leadership Style

The distributed leadership style is a conceptualization of how leadership occurs in complex group settings that has emerged in the past few decades. The seminal work on distributed leadership involved exploring leadership in the context of schools (Spillane et al., 2001). Schools were selected as the context for the emergent research on distributed leadership based on the assumption that group dynamics within the school setting were too complex to be explained through the dominant leadership theories at the time (Spillane & Diamond, 2007; Spillane et al., 2001). Research during that period in the school setting involved leadership theories such as instructional leadership and transformational leadership, theories that would be incapable of describing the vibrant and robust nature of leadership the complex group dynamics of organizations such as schools (Spillane et al., 2001). Distributed leadership became an influential perspective on the practice of leadership in organizations as it differentiated from traditional leadership assumptions (Bolden, 2011; Gronn, 2002; Spillane, 2006). Distributed leadership also encapsulated how individuals share agency roles and accept followership in different scenarios (Spillane, 2006). These characteristics of distributed leadership remained at the focus of researchers as they utilized distributed leadership to understand the practice of leadership in both business and governmental settings. Thus, the distributed leadership style was critical to include in the current dissertation.

As acknowledged in the previous paragraph, the distributed leadership style emerged as an influential leadership concept at a time when researchers remained interested in exploring the leader as an individual at the top of the organization, or at least, at the top of a department or grouping within the organization (Spillane,

2006). While distributed leadership emerged in popularity in the early 2000s (e.g., Bolden, 2011; Spillane, 2006; Spillane et al., 2001), the dynamics at the foundation of social interaction within organizational group settings acknowledged critical elements of distributed leadership decades prior to the seminal work of Spillane et al. (2001). Early research on the social psychology of leadership and group dynamics included a description of how leadership works in complex organizational settings (Wolman, 1956). Wolman stated that while leadership roles can be assigned within a formal system of relations in organized group settings, leadership must also be considered as a product of the situations and relations that exist in an organization. Wolman also noted that while an individual can assume leadership in one group, they could also fail in assuming leadership in another group. Gibb (1954) acknowledged that the assumption of leadership in a group setting will depend on a group's nature and purpose, rather than the personality of an individual seeking to assume the role of leader.

The research contributions by Gibb (1954) and Wolman (1956) are critical toward understanding distributed leadership because their scholarly discussion on leadership and group dynamics acknowledges that leadership cannot be a static state for an individual in an organization, just as followership cannot be a constant role for all individuals. The distributed leadership concept of Spillane et al. (2001) contributed to these early leadership descriptions by supporting the concept of individuals holding leadership roles in the different contexts within a complex organization without assignment. These authors' novel contribution was to acknowledge that leadership was not an assumed role either, where an individual can take leadership, but that an individual's capacity to motivate, inform, and follow practices on the job will result in holding a leadership role in tasks where individuals interact. Current literature concerning distributed leadership in business and government settings supports understanding how scholars have taken the seminal research on distributed leadership and conceptualization of leadership and group dynamics from prior studies to develop the current state of theory of distributed leadership style.

Studies of Distributed Leadership in Business

The practice of distributed leadership in business continues to gain attention from scholars. While distributed leadership remains critical for organizations, evidence exists that indicates that while leadership behaviors can be trained, leadership approaches such as distributed leadership cannot (Kjeldsen & Andersen, 2021). Such findings are evidence that organizations seeking to exploit the benefits of increased reliance on distributed leadership style, such as higher levels of performance and job satisfaction, should prepare the organization for distributed leadership practices to be implemented, rather than to attempt to train individuals to take roles as distributed leaders (Kjeldsen & Andersen, 2021).

Research concerning distributed leadership in business organizations also supported the role of the practice as supporting specific business activities. Canterino et al. (2020) examined the role of distributed leadership as mediating the relationship between different leadership orientations and change mobilization. Their findings indicated that task-oriented leadership orientations would relate positively to mobilizing change, with distributed leadership explaining the relationship between orientation and mobilizing activities (Canterino et al., 2020). These findings support the discussion of Spillane et al. (2001) in their seminal work concerning distributed leadership where they noted that a leader's ability to motivate, inform, and follow job practices will support individuals assuming leadership roles in different task scenarios. The findings from Canterino et al. (2020) are supported by Rao-Nicholson et al. (2020), who focused on a specific type of change: Merger and acquisition (M&A) activity. Rao-Nicholson et al. examined the relationship between human resource practices and organizational ambidexterity when completing cross-border M&As. The findings indicated that the relationship between human resource practices and organizational ambidexterity became stronger in cross-border M&As when distributed leadership was in place, while influencing the success of M&As. Both Canterino et al. (2020) and Rao-Nicholson et al. (2020) indicated that distributed leadership shall hold and interactional role between factors during periods of organizational change.

Studies of Distributed Leadership in Government and Nonprofits

There is an abundance of academic studies involving distributed leadership in the governmental and nonprofit setting, with the profusion of these studies focused on the educational setting. Several studies have focused on the concept of distributed leadership have focused on education. The placement of focus on education could be influenced by the seminal work on distributed leadership focusing on leadership in education (Spillane et al., 2001). The initial research on distributed leadership involved the exploration of school leadership to determine the process of enacting leadership in schools (Spillane et al., 2001). While Spillane et al. (2001) and Spillane (2006) also acknowledged that the group dynamics involved in leadership could also be extended to other social and situational contexts, a prolificacy of productiveness built around understanding distributed leadership in schools, with many contemporary studies on distributed leadership being produced in the past few years. While much of the research concerning distributed leadership in government and nonprofits exists in the context of schools and education, there is some research on public sector organizations and distributed leadership practices. Jakobsen et al. (2021) discussed the influence of distributed leadership in public service organizations as holding both direct and indirect influence on job satisfaction and behavior. These findings are consistent with the findings from multiple other studies in the context of schools, where both performance and job satisfaction were considered to be influenced by distributed leadership style, and like these studies, Jakobsen et al. also found the importance of factors as holding an indirect effect on the relationship between distributed leadership and outcomes (Jambo & Hongde, 2020; Y. Liu et al., 2021; Torres, 2019). Hence, the discussion of distributed leadership in government and nonprofits emphasizes distributed leadership in schools.

There is ample evidence that distributed leadership supports performance. A systematic review of literature concerning the practice of distributed leadership by principals on the academic achievement of students included the conclusion that distributed leadership holds a positive, yet indirect effect on the academic achievement of students (Jambo & Hongde, 2020). These findings support

principals, who hold the highest administrative position in the school setting, as being indispensable when the practices in their job involved the distributed leadership style (Jambo & Hongde, 2020).

Also critical toward understanding the importance of distributed leadership is understanding how it can affect teachers. Liu and Werblow (2019) examined the role of distributed leadership as influencing job satisfaction in a meta-analysis. The findings indicated that distributed leadership holds a significant and positive role in encouraging job satisfaction of principals and teachers (Liu & Werblow, 2019). The influence of distributed leadership on job satisfaction has also been supported in other research (e.g., Y. Liu et al., 2021; Torres, 2019).

Torres (2019) determined that distributed leadership held a positive relationship with the job satisfaction of teachers. There was also reciprocal mediation between distributed leadership and professional collaboration toward teacher satisfaction (Torres, 2019). These findings support the importance of distributed leadership as a characteristic of the leadership practices present in a school to achieve teacher satisfaction. The results from Torres are supported by S. Liu et al. (2021), where distributed leadership was found to be positively associated with job satisfaction. However, S. Liu et al. determined that the relationship between distributed leadership and outcomes such as job satisfaction are influenced by mediating factors. S. Liu et al. also determined that school culture and teacher collaboration both held an indirect, mediating impact on the relationship between distributed leadership and job satisfaction in schools. These findings are supported by Printy and Liu (2021), who also noted the importance of school culture in supporting distributed leadership in a study including teachers and principals from 32 different countries. Thus, while distributed leadership can influence outcomes such as performance for students (Jambo & Hongde, 2020) and job satisfaction for teachers (S. Liu et al., 2021; Torres, 2019), the complexity of the group dynamics involved in distributed leadership appear to be as such that examination of the relationship between distributed leadership and outcome variables should include factors that mediate or moderate the relationship.

A limitation that can exist to the presence of distributed leadership in the school setting involves how conducive the climate and design of the school is toward acceptance of distributed leadership. Findings from Printy and Liu (2021) note the importance of school culture in supporting the proliferation of distributed leadership style. Y. Liu et al. (2021) also acknowledged the importance of distributed leadership as instrumental toward accomplishing teacher satisfaction, but that school culture was a factor that supported the relationship. Qualitative research involving the implementation of distributed leadership described the difficulty of putting distributed leadership in place when school culture did not support the implementation of distributed leadership (Bush & Ung, 2019). Bush and Ung determined that distributed leadership will take the shape of the culture in which it is being implemented, as their findings indicated that in a school with a top-down model of leadership, distributed leadership took a form that was indistinguishable from delegation. These findings illustrate the importance of the findings of researchers such as Printy and Liu (2021) and Y. Liu et al. (2021), who determined that culture held a crucial role in distributed leadership as culture is not just a factor concerning the success or failure of distributed leadership style, it is also a factor that will determine the shape of the distributed leadership style in organizations (Bush & Ung, 2019). These findings are critical in understanding the importance of public sector managers because of their role in setting the tone for how leadership is distributed throughout the organization.

Summary

A few early studies notwithstanding, the study of worker motivation in the public sector as a distinct area of inquiry did not begin until the 1980s. Because the motivation for the study of PSM was to legitimize the field of public administration as distinct from the field of business administration (Bowman & Thompson, 2013; Bozeman, 2004; Rainey, 2009), many of the early studies of PSM compared public and private managers (e.g., Rainey, 1982). In contrast, studies of organizational leadership did not include a distinct public sector leadership style. While there are numerous studies of organizational leadership that focus exclusively on samples of public sector managers (Mau, 2020), the leadership theories, concepts, and metrics

included therein were not developed with the distinctiveness of the public sector in mind (Rainey, 2009). Unlike theories of worker motivation that are focused on different types of incentives, theories of leadership directly address work context, making them as applicable to public sector as private sector contexts and samples.

Distributed leadership has been characterized as ideal for public sector managers working towards the resolution of complex and “wicked” public policy problems and those muddling through workday bureaucracy alike (Game et al., 2014). Although there is research on the performance outcomes of distributed leadership in government (Jakobsen et al., 2021), the review of the literature presented above includes no study of the predictors of the distributed leadership style on the part of public sector managers. Because distributed leadership is conceptually relatively selfless in terms of the allocation of one’s decision-making authority to colleagues and subordinates, it is the conclusion of this review of the literature that PSM is the appropriate conceptualization of the motivation of the public sector manager to distribute their decision-making authorities, informally or formally (Piatak & Holt, 2020). Chapter 3 includes details on how the current researcher modelled PSM as a predictor of distributed leadership on the part of public sector managers.

Chapter 3 – Methodology

The purpose of this quantitative cross-sectional non-experimental study was to address the extent to which the distributed style of leadership covaried with public service motivation. Moreover, the researcher employed a moderation model to address the extent to which years of public service moderate the potential statistical relationship between the distributed leadership and public service motivation. The method of data analysis was multiple regression analysis. Chapter 3 contains a description of the research method. This chapter includes a description of the participants and how participants were sampled. A purposive sampling method was used to sample the population for the study, which was individuals working in public service. The researcher performed an *a priori* power analysis to determine the preferred sample size for the project. A description of data collection procedures is also included in this chapter. The chapter also includes a description of instrumentation and ethical procedures and concludes with a description of data analysis.

Description of Methodology

The research methodology and design for the current dissertation involved the use of a quantitative cross-sectional approach. The research problem and research questions involved understanding the magnitude of the relationships between variables included in the study. Qualitative research does not support examining the strength and significance of relationships. Quantitative research supports understanding the strength and significance of relationships as it involves numbers and statistical procedures designed to measure whether relationships are statistically significant at a certain threshold, typically $p < 0.05$. Therefore, deductive reasoning was applied in this study; that is, predefined variables were investigated to understand the extent of the influence of distributed leadership on public service motivation and the impact of the number of years in public service on the relationship between distributed leadership and public service motivation.

Participants

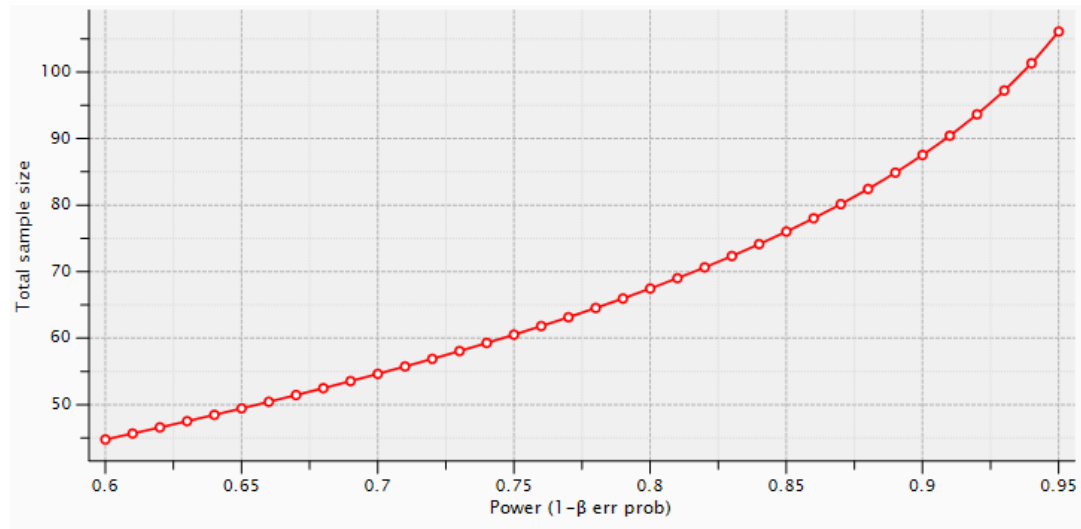
A sample was taken from the population selected as the unit of observation for this research. As stated in Chapter 1, the unit of observation for this quantitative, correlational dissertation was public sector managers. The sample was recruited using a purposive sampling approach. One criterion by which the sample was selected was the type of government organization, as the provision of public goods and services can vary in complexity, which means that the need for distributed leadership to achieve the goals and objectives of public sector organizations can vary (Bolden, 2011). Another purposive selection criterion was that the study participant had overseen five or more employees for the past 5 years or longer (Ponomariov & Boardman, 2011). The sampling frame from which study participants was purposively selected was developed by a third-party service, such as SurveyMonkey.

Statistical Power for Sample Size

The sample size for this study was determined through the completion of an *a priori* power analysis. G*Power version 3.1.9.4 was used to perform the *a priori* power analysis. The input parameters for the *a priori* power analysis included the assumption of an effect size of $f^2 = 0.15$, an error probability of $\alpha = 0.05$, a preferred power of $1 - \beta = 0.95$, and two tested predictors. The results of the *a priori* power analysis included several output parameters and a graph that illustrated the preferred sample size at different levels of power (Figure 2). The output parameters included a non-centrality parameter of $\lambda = 16.05$, a critical $F_{(2,101)} = 3.09$, and a desired total sample size of 107, with an actual power of 95.17%.

Figure 2

Graph of Total Sample Size by Power Levels



Research Instrumentation

The research instrument for the study was a survey instrument. The survey instrument included two pages: one page that included informed consent and one page that included the items that participants were required to respond to. The informed consent page included details about the study and the responsibilities of participants. The informed consent form also informed participants that they had no obligation to complete the survey and that they could leave the survey at any time. The second page of the survey included items related to demographics and the variables in the study. The items were presented in a Likert scale design, where the item presented a statement and there were predefined responses for the participant. The demographic items included two ordinal and two nominal items. Age range and income range were ordinal, as they featured a range that followed a natural order. Perceived gender and ethnicity were nominal as they did not have a rank or order. The items used for the scales to measure public service motivation and distributed leadership came from scales found to be valid and reliable in prior research. The items were measured using five-point, five-anchor responses (1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Neither Agree nor Disagree*, 4 = *Agree*, 5 = *Strongly Agree*). The item measuring years of service was broken into ranges (See Table 1).

Table 1*Measures of the Multiple Constructs by Source*

Construct	Measures	Source
Public Service Motivation (PSM) (IV)	24 items using a 5-Point Likert scale Reliability .69 to .74	(Perry, 1996)
Distributive Leadership (DL) (DV)	6 items using a 7-Point Likert scale Reliability .53 to .86	(Jønsson et al., 2016)
Years of Service	Moderating Variable	

Note. All factor loadings are significant at $p < .001$.

Procedures

The data collection procedures for the study entailed the use of a third-party service to gain access to potential participants and to deliver the survey through a digital platform. Following acceptance of the dissertation proposal by the dissertation committee and approval to use human subjects by the Institutional Review Board of Southeastern University, the researcher uploaded the survey instrument to the SurveyMonkey data collection platform. SurveyMonkey is a data collection resource that supports researchers collecting data through digital means. The survey instrument was designed to feature the informed consent form on the first page and survey items pertaining to the demographics and variables of the study on the second page. The researcher then set the constraints for data collection in a premium data collection service offered by SurveyMonkey, where the service enacted a purposive sampling of users that elect to respond to surveys. The SurveyMonkey premium service is a paid service, therefore, SurveyMonkey will then be paid to collect the data. Data collection continued until the predetermined sample size of 107 participants was met. The researcher then exported data from SurveyMonkey to Microsoft Excel. The cases from the sample were then reviewed to determine whether fraudulent responses existed. Fraudulent responses were defined as those where a participant entered the same response for every item or designed patterns with their responses. If there were fraudulent responses, they were removed. The data were then exported to SPSS version 24.0.0.0 for analysis.

Measures for Ethical Treatment

The measures for ethical treatment for this research entailed adherence to the ethical procedures described in the Belmont Report (U.S. Department of Health and Human Services, 1979). The Belmont Report was issued to support the ethical treatment of human subjects in research and the ethical principles outlined in the Belmont Report remain the standard for human subject treatment in academic settings (Vollmer & Howard, 2010). The Belmont Report includes three ethical principles: respect for persons, beneficence, and justice. The design of the procedures for this study were influenced by each of these ethical principles. According to the Belmont Report, respect for persons involves protecting the autonomy of human subjects, while treating them with courtesy and respect, while using informed consent and not being dishonest or deceptive (U.S. Department of Health and Human Services, 1979). Beneficence involves the maximization of benefits and minimization of harm to human subjects (U.S. Department of Health and Human Services, 1979). Justice refers to efforts by researchers to avoid exploitation of participants, while ensuring fair distribution of costs and benefits to participants (U.S. Department of Health and Human Services, 1979).

There were several elements of the research consistent with the concept of respect for persons. The research instrument for the study included informed consent on the first page of the digital survey on SurveyMonkey. Individuals had autonomy in the form of being capable of making the decision of whether to participate, and to leave the survey whenever they wished. The materials for inviting potential participants, informed consent and the items on the survey each were completely honest and free from deception. Beneficence was present in the study because there appears to be an absolute minimum likelihood of harm to come from the study. Harm appeared only possible in the form of the remote possibility that items on the survey could have encouraged negative feelings for a participant. The items did not appear to include language that would trigger negative feelings among participants. Justice was present in the study as the research was designed so that costs and benefits were equally distributed as there did not appear to be any

characteristics in the design of the study that would create more or less benefit or cost for participants.

Ethical treatment of human subjects was extended to the treatment of data. Collected data will be stored for a period of 5 years following the completion of the study. All data collected and the files from data collection and analysis were stored on an encrypted USB drive. The encrypted thumb drive was then locked in a filing cabinet in the office of the researcher. At the end of the 5-year period, the researcher will take the data out from the file cabinet, wipe the data from the USB drive, and destroy it with fire.

Research Questions

RQ1: To what extent does public service motivation covary with the distributed leadership style among public sector managers?

RQ2: To what extent does years of service moderate the extent to which public service motivation covaries with the distributed leadership style among public sector managers?

Hypotheses

H1: As public service motivation increases, distributed leadership style increases, *ceteris paribus*.

H2: Years of public service will positively moderate covariation between public service motivation and the distributed leadership style increases, *ceteris paribus*.

Data Cleaning

Data from the surveys was screened to get valid, accurate, complete, and consistent results. The responses were reviewed to ensure that there were no irregularities in the numerical data, missing data, duplicate entries, or values that may be outliers. Outliers were retained unless they represented errors. Any outliers that were removed were documented so that the data analysis procedure was transparent. Scatterplots were used to show how the data was distributed.

Responses for years of service, the moderating variable, was standardized to ensure consistent and valid formatting. To keep statistical power, responses that include missing data were removed from the analysis if there were enough response

to ensure that the predetermined necessary response rate of 107 was met. If the predetermined necessary response rate was not met, imputation with regression was used to replace missing data. Imputation using regression for missing data is useful because it can sustain correlations between other variables (Zhang, 2016).

Survey participants were volunteers, and their participation was anonymous. The volunteer nature of respondents, along with the anonymity of the surveys, helped to eliminate the Hawthorne effect of bias. The Hawthorne effect of bias occurs when research participants work productivity increases because they believe they are under an increased amount of focus (Hawthorne Studies, 2007).

Nine of the original PSM scale and survey questions were negatively framed. Research on the score reliability of data from surveys using mixed frame questions has suggested that they could be measuring different traits (Weems & Onwuegbuzie, 2001). Instead of being reverse coded, the negatively framed questions were changed to be positively framed to avoid using mixed framed questions.

Data Analysis

Data analysis in this dissertation included four specific phases. The first phase for data analysis included the profile characteristics of participants. The profile characteristics were demographic characteristics such as perceived gender, age range, income range, and ethnicity. The profile characteristics were collected to give greater context to the study. The second phase included the completion of descriptive statistics. Descriptive statistics were calculated for each of the variables in the study. The descriptive statistics included determining mean as a measure of central tendency, standard deviation as a measure of variance, skewness, and kurtosis as a measure of posterior distribution, Cronbach's α was determined as a measure of reliability, and histograms as illustrations of the distribution of data. The third section included statistical assumptions. The researcher tested statistical assumptions for the selected test to evaluate the hypotheses of the study. Multiple regression was used as the hypothesis test for the study. The tests for statistical assumptions included the use of scatterplots to test for linear relationships, the variance inflation factor (VIF) was used to test for multicollinearity,

homoscedasticity was tested using the Breusch-Pagan test, and multivariate normality was tested using the Shapiro-Wilk test. The final phase was to complete regression analysis and to test the moderating impact of years of service.

Summary

Chapter 3 contained description of the research method. The description of the research method included a description of the participants and how participants were sampled. A purposive sampling method was used to sample the population for the study, which was individuals working in public service. The researcher performed *a priori* power analysis to determine the preferred sample size for the project. A description of data collection procedures is also included in the chapter, where data were collected using SurveyMonkey. The chapter also includes a description of instrumentation and ethical procedures. It concludes with a description of data analysis.

Chapter 4 – Results

The purpose of the current study was to evaluate the degree to which study participant perceived degree of public service motivation covaries with distributive leadership style. An additional focus of the study was the potential moderating effect that study participant years of government service might have on the relationship between public service motivation and distributive leadership style. A non-experimental, quantitative research design was used to address the study's topic and research problem. Two research questions were formally stated to address the study's purpose. Descriptive, inferential, and predictive statistical techniques were used to analyze the data. IBM's 29th version of its Statistical Package for the Social Sciences (SPSS) represented the analytic platform used in the study.

Descriptive Statistics: Survey Item Response Set

Descriptive statistical techniques were employed to assess the study's response dataset within the two constructs and study participant years of service. The data were specifically analyzed using the descriptive statistical techniques of frequencies (n), measures of typicality (mean scores), variability (minimum/maximum, standard deviations), standard errors of the mean (SE_M), and data normality (skew, kurtosis). Table 2 contains a summary of the findings of the descriptive statistical analysis of the study's response data for the constructs of distributed leadership and public service motivation, and for study participant years of service.

Table 2

Descriptive Statistics Summary: Distributed Leadership, Public Service Motivation, and Years of Service

Variable	M	SD	n	SE_M	Min	Max	Skew	Kurtosis
Distributed Leadership	3.93	0.61	108	0.06	2.29	5.00	-0.23	-0.34
Public Service Motivation	3.71	0.51	108	0.05	1.96	5.00	-0.33	0.88
Years of Service	15.52	9.43	108	0.91	5.00	44.00	0.81	-0.09

Table 3 contains a summary of the findings of the descriptive statistical analysis of the study's data for the constructs of distributed leadership and public service motivation, by category of study participant years of service.

Table 3

Descriptive Statistics Summary Table: Distributed Leadership and Public Service Motivation by Years of Service Category

Category/Construct	<i>M</i>	<i>SD</i>	<i>n</i>	<i>SE_M</i>	Min	Max	Skew	Kurtosis
10 Years or Less								
Distributed Leadership	3.78	0.61	40	0.10	2.71	5.00	0.10	-0.63
Public Service Motivation	3.66	0.51	40	0.08	2.67	4.83	0.17	-0.33
11–20 Years								
Distributed Leadership	4.04	0.56	38	0.09	2.71	5.00	-0.25	-0.20
Public Service Motivation	3.74	0.51	38	0.08	2.33	4.71	-0.60	0.50
21 Years or More								
Distributed Leadership	4.00	0.64	30	0.12	2.29	5.00	-0.55	0.17
Public Service Motivation	3.72	0.53	30	0.10	1.96	5.00	-0.64	2.96

Internal Reliability

The researcher evaluated the internal reliability of study participant within survey items on the two research instruments using the Cronbach's alpha (α) statistical technique (Field, 2018). The conventions of alpha interpretations proposed by George and Mallery (2020) were applied to the interpretation of internal reliability levels achieved within the study's two constructs and for all survey items for both constructs. Table 4 contains a summary of findings for the internal reliability of study participant response for survey items associated with the construct of distributed leadership.

Table 4*Internal Reliability Summary Table: Distributed Leadership*

Scale	# of Items	α	Lower Bound	Upper Bound
Distributed Leadership	7	.80	.75	.84

Note. The lower and upper bounds of Cronbach's α were calculated using a 95.00% confidence interval.

Table 5 contains a summary of findings for the internal reliability of study participant response for survey items associated with the construct of PSM.

Table 5*Internal Reliability Summary Table: Public Service Motivation*

Scale	# of Items	α	Lower Bound	Upper Bound
Public Service Motivation	24	.88	.85	.90

Note. The lower and upper bounds of Cronbach's α were calculated using a 95.00% confidence interval.

Table 6 contains a summary of findings related to the internal reliability of study participant response for survey items associated with the constructs of distributed leadership and public service motivation.

Table 6*Internal Reliability Summary Table: Distributed Leadership and Public Service Motivation*

Scale	# of Items	α	Lower Bound	Upper Bound
All Items (DL & PSM)	31	.90	.88	.92

Note. The lower and upper bounds of Cronbach's α were calculated using a 95.00% confidence interval.

Findings by Research Question

Two research questions were formally stated to address the study's purpose and research problem. The probability level of $p \leq .05$ represented the threshold value for findings in Research Questions 1 and 2 to be considered as statistically significant. The conventions of effect size interpretation offered by Sawilowsky (2009) were applied to findings achieved in Research Questions 1 and 2. The

following represents the reporting of findings achieved in the two research questions stated in the study.

Research Question 1

Research Question 1 was: To what extent does public service motivation predict distributed leadership among public sector managers? The simple linear regression statistical technique was used to address the predictive ability of public service motivation and perceptions distributive leadership style. The assumptions of simple linear regression were addressed and satisfied through statistical means (independence of error) and visual inspection of scatter plots (linearity, normality of residuals; influential outliers, and homoscedasticity).

The predictive model used in Research Question 1 was statistically significant ($F(1,106) = 75.77, p < .001, R^2 = .42$), indicating that 41.68% of the variance in distributed leadership is explainable by public service motivation. Public service motivation was statistically significant in predicting the distributive leadership style ($B = 0.77, t_{(106)} = 8.70, p < .001$), indicating that on average, a one-unit increase in perceptions of public service motivation increases the value of distributive leadership style by 0.77 units. The predictive effect for perceptions of public service motivation upon the distributive leadership style was considered very large to huge ($r^2 = .423$). Table 7 contains a summary of the findings for perceptions of public service motivation upon the distributive leadership style.

Table 7

Predictive Model Summary: Perceptions of Public Service Motivation Predicting Distributed Leadership Style

Model	<i>B</i>	<i>SE</i>	95.00% CI	β	<i>t</i>	<i>p</i>
(Intercept)	1.09	0.33	[0.44, 1.74]	0.00	3.31	.001
Public Service Motivation	0.77	0.09	[0.59, 0.94]	0.65	8.70	< .001

Research Question 2

Research Question 2 asked: To what extent does years of service moderate perceptions of public service motivation predict the distributive leadership style among public sector managers? Formal moderation analysis was conducted to

determine whether study participant years of government service moderated the relationship between distributive leadership style and perceptions of public service motivation. The researcher conducted mean centering for the variable of distributive leadership style. In the first step of the moderation analysis, a simple effects model was established using linear regression with public service motivation as the dependent variable and distributive leadership style as the predictor variable. In the second step of the moderation analysis, a non-interaction model was created by adding study participant years of government service to the predictor variable in the linear model in the simple effects model (Step 1). In the third step, an interaction model was established by adding the interaction between distributive leadership style and years of government service to the predictors in the linear model in the non-interaction model (Step 2). Assumptions for linear regression analysis were verified for the interaction model (Step 3).

For moderation to be supported, two conditions must be satisfied. First, the causal predictor variable of distributive leadership style must be statistically significantly predictive of public service motivation in the simple effects model (Step 1). Secondly, the interaction model (Step 3) must explain significantly more variance in the variable public service motivation than the non-interaction model (Step 2). If either of these conditions are not satisfied, formal moderation is not supported.

Distributive leadership style was statistically significant in predicting perceptions of public service motivation ($B = 0.54$, $t_{(106)} = 8.70$, $p < .001$), thereby satisfying the first condition of moderation analysis. A partial F -test was then conducted to determine whether the interaction model explained more variance in perceptions of public service motivation than the non-interaction model in the analysis. The partial F -test was statistically insignificant ($F(2,102) = 0.21$, $p = .81$), indicating that the interaction model did not explain significantly more variance than the non-interaction model in the analysis. As such, the second condition of moderation analysis was not satisfied; therefore, formal moderation was not supported.

The results of the simple, non-interaction, and interaction models are presented in Table 8. Table 9 contains a presentation of a comparison of the non-interaction and interaction models in the moderation analysis.

Table 8*Description of Moderation Analysis*

Predictor	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Step 1: Simple Effects Model					
(Intercept)	1.57	0.25		6.32	< .001
Distributed Leadership (DL)	0.54	0.06	0.65	8.70	< .001
Step 2: Non-interaction Model					
(Intercept)	1.57	0.25		6.28	< .001
Distributed Leadership (DL)	0.55	0.06	0.66	8.65	< .001
Service Category 11–20 Years	-0.07	0.09	-0.06	-0.75	.46
Service Category 21 Years or More	-0.07	0.10	-0.06	-0.68	.50
Step 3: Interaction Model					
(Intercept)	3.75	0.06		57.76	< .001
Distributed Leadership (DL)	0.57	0.10	0.68	5.46	< .001
Service Category 11–20 Years	-0.06	0.09	-0.06	-0.69	.49
Service Category 21 Years or More	-0.07	0.10	-0.06	-0.72	.47
DL x Service Category 11–20 Years	-0.08	0.16	-0.05	-0.49	.62
DL x Service Category 21 Years or More	0.02	0.16	0.02	0.15	.88

Table 9*Linear Model Comparison Table: Non-interaction and Interaction Models*

Model	<i>R</i> ²	<i>F</i>	<i>df</i>	<i>p</i>
Non-interaction	0.42			
Interaction	0.42	0.21	2	.81

Simple Slopes Analysis

The researcher conducted simple slopes analysis for the moderator variable of years of government service to determine whether any significant moderation may have occurred. Simple slopes were evaluated at each category of study participant years of government service. For the 21 Years or More category of years of government service, the slope of distributive leadership style on public service motivation was statistically significant ($B = 0.59$; $p < .001$). For the 11–20 Years category of years of government service, the slope of distributive leadership style on public service motivation was statistically significant ($B = 0.49$, $p < .001$). For the 10 Years or Less category of years of government service, the slope of distributive leadership style on public service motivation was statistically significant with a value of 0.57, $p < .001$. The predictive slope of distributive leadership style on public service motivation was at its strongest for the 21 Years or More category of years of government service. The predictive slope on public service motivation was at its weakest for the 11–20 Years level of years of government service. A summary of the findings for the simple slopes analysis of study participant years of government service moderating the relationship of distributive leadership style on public service motivation are contained in Table 10.

Table 10

Simple Slopes Summary Table: Years of Government Service Moderating Distributed Leadership on Public Service Motivation

Years of Government Service	<i>B</i>	<i>SE</i>	% CI	<i>t</i>	<i>p</i>
21 Years or More	0.59	0.11	[0.37, 0.82]	5.17	< .001
11–20 Years	0.49	0.12	[0.26, 0.73]	4.19	< .001
10 Years or Less	0.57	0.10	[0.36, 0.78]	5.46	< .001

Summary

Good to excellent levels of internal reliability were achieved for the study's constructs of instruments. The predictive relationship between study participant perceptions of public service motivation and distributive leadership style was statistically significant, reflecting a very large to huge predictive effect. Formal

moderation was not supported in Research Question 2 as the interaction model was not statistically significant, failing to contribute to an increase in the explained variance when compared to the non-interaction model. The findings of the follow-up simple slopes analyses reflected statistically significant effects for all three categories of study participant categories of years of government service, with the strongest at the 21 Years or More category.

Chapter 5 – Discussion

The purpose of this cross-sectional quantitative research was to address the extent to which the distributed style of leadership is related to PSM. Moreover, the researcher employed a moderation model to address the extent to which years of public service moderated the potential statistical relationship between distributed leadership and public service motivation. Addressing the extent of the distributed style of leadership related to PSM consisted of collecting and analyzing data in order to answer the following research questions:

RQ1: To what extent does PSM covary with the distributed leadership style among public sector managers?

H1a: As PSM increases, distributed leadership increases, *ceteris paribus*.

RQ2: To what extent does years of service moderate the extent to which PSM covaries with the distributed leadership style among public sector managers?

H2a: Years of public service will positively moderate covariation between PSM and the distributed leadership style increases, *ceteris paribus*.

This chapter includes a discussion of the findings from the results presented in Chapter 4. In this concluding chapter, the researcher relates each research question with the results from any literature that may have supported these findings. Further, the chapter includes an explanation the conceptual framework's application and directed effects associated with PSM and these results. The chapter closes with suggestions for future research and practice and an overall supposition of the entire study.

Review of Methodology

The research design for the current study was quantitative, cross-sectional, and non-experimental. This design was appropriate because the objective of the study was to test the statistical relationship between distributed leadership as a predictor of PSM, as moderated by years of public service. The researcher used purposive sampling established through an *a priori* power analysis, resulting in a sample size of 107 with an actual power of 95.17%. The power level is evidence

that the presence of a Type II error is not likely present in the study. The research methodology was appropriate for the research, as the cross-sectional, non-experimental design supported understanding the experience of public service workers with distributed leadership and the extent to which their experience can lead to motivation toward public service, while also determining the extent to which their years of service could disrupt the strength and significance of the relationship between distributed leadership and public service motivation. As the problem was one dealing with association and prediction rather than determining causation, the application of the research design was appropriate. There are limitations to the applied research method and design, however, as there are still opportunities that exist for future research. These are addressed later in Chapter 5. Data were collected using an online survey through SurveyMonkey. The researcher employed descriptive and predictive statistical techniques to analyze the data. ISPSS version 29.0.0.0 was used for the purpose of analyzing data.

Summary of Results

The first research question was an inquiry into the extent to which PSM relates to distributed leadership among public sector managers. The results contributed evidence of the existence of a statistically significant and positive relationship between distributed leadership and PSM among individuals in public sector management positions. When the distributed leadership experienced by public sector managers was higher in magnitude, their PSM was also higher, and vice versa. These results are indicative of an increase in the distributed leadership experienced by public service managers as holding a significant role in an increase in PSM. While the results associated with the first research question included support for the hypothesis that as PSM increases, distributed leadership increases, *ceteris paribus*, the findings associated with the second research question did not contribute support for the second hypothesis. The second research question was an inquiry into the extent to which the years of service dedicated by a public service manager would moderate the relationship between distributed leadership and PSM. The findings did not provide support for years of service as a moderator of the relationship between distributed leadership and PSM. Thus, while a statistically

significant and positive relationship exists between distributed leadership and PSM among public service managers, the number of years worked in public service does not moderate the statistically significant, positive relationship to become not significant in size or negative in direction. Further discussion of these research questions is offered in the following section.

Discussion by Research Question

Research Question 1

The first research question was concerned with the direct statistical relationship between distributed leadership and PSM. The results presented in Chapter 4 included evidence that distributed leadership covaried positively with PSM at lower than the standard threshold for *p*-values being characterized as significant (i.e., lower than .05). This specific result for the distributed leadership coefficient held for all steps in the stepwise regression used to test the alternative hypothesis that distributed leadership is a predictor of PSM. This specific result is yet another example that leadership styles that are not transactional or laissez-faire covary positively with PSM.

To elaborate, the finding that distributed leadership covaries with PSM is in the company of past research finding transformational, authentic, and servant leadership styles to covary with PSM amongst public sector employees, including but not limited to public managers (Breugh et al., 2018; Brewer & Walker, 2010; Kjeldsen, 2019; Pandey et al., 2008). Moreover, said covariation has been demonstrated to positively covary with the performance of public sector workers and organizations (Brewer & Walker, 2010; Kjeldsen, 2019; Pandey et al., 2008). Additionally, public managers have suggested that followers' motivation to fulfill routine tasks is higher when the public interest of routine tasks was communicated to followers, routinely (Breugh et al., 2018).

Further, an examination of leadership style associated with PSM was investigated, showing how the connection or outcomes based on motivational factors was often based on leadership style (e.g., Campbell, 2018). Several experts have acknowledged that the PSM impacts PSM, with the most commonly agreed-upon style being transformational leadership (Fareed & Su, 2022; Jensen & Bro,

2018). Jensen and Bro—and later, Fareed and Su (2022)—suggested that the motivation of public service employees was effective only with a strong leader guiding them. From the examination of PSM and leadership, scholars have discovered patterns of causality between PSM and leadership. It was also noted that the leadership style of management was considered significant in PSM, along with other facets that impacted the success of an organization. For example, Hameduddin and Engbers (2022) showed how leadership style was fundamental when PSM was applied to such distribution of long-term socialization.

Researchers have also illustrated how the effects of PSM impacted collaborative efforts between leaders and employees (Crucke et al., 2022; Torfing, 2019). Further, study findings have implied that PSM could only be effective when leaders were adaptive within their organization's culture or implemented partnerships successfully with employees (Torfing, 2019). Recent research suggested otherwise, with Crucke et al. (2022) and Hur (2018) finding that PSM was less rationalized through self-interest while impacted by the employee-leader relationship. Miao et al. (2018) and Piatak and Holt (2020) claimed that their findings overtly signified that the reasons associated with PSM attributed to the individual desire to serve public interest were necessary for motivating employees.

As the focus of this research question was based on the extent that distributed leadership covaries with PSM predicts among public sector managers, some extant literature was found that indirectly supported this idea. For example, based on studies by Bolden (2011), Gronn (2002), and Spillane (2006), distributed leadership was considered a clear perspective on the practice of leadership in organizations as it differentiated from traditional leadership assumptions. These researchers found that distributed leadership captured how individuals share agency roles and accept followership in different scenarios (Spillane, 2006). Nevertheless, there was no mention of if PSM predicted such leadership. This was implied based on the characteristics that suggested outside elements influenced this leadership style. The contextualization of such could indicate that PSM was one of these predictors.

Research Question 2

The second research question was concerned with potential moderation covariation of years of service on the direct statistical relationship between distributed leadership and PSM. The quantitative model also specified years of service as a direct covariate of PSM. The results presented in Chapter 4 show that years of service has no statistically significant relationship with PSM, directly or indirectly. Specifically, the p -values were considerably larger than the standard threshold for p -values being characterized as significant (i.e., lower than .05).

The primary contribution of the current study was the analysis of the statistical relationship between the distributed style of leadership and PSM. Typically, years of service is an afterthought in studies focused on the prediction and explanation (ideally, the typical cross-sectional dataset notwithstanding) of PSM. By “afterthought,” what is meant that years of service is specified in quantitative models predicting PSM as a control variable without theory-driven hypotheses. Years of service is a valid control variable in studies of PSM (Breaugh et al., 2018; Brewer & Walker, 2010; Kjeldsen, 2019; Pandey et al., 2008).

The rationale for specifying years of service as a moderator variable instead of a control variable was that preferred leadership styles by followers have been demonstrated to vary with age and with generational cohort in the public sector (Zachara, 2019). This covariation has also been demonstrated for private for-profit and private nonprofit samples and contexts (Birkinshaw et al., 2019). The results of the current study do not constitute a Popperian rejection of the specification of generational cohort as more than a control variable in quantitative predictive studies of PSM, whether as a direct or indirect covariate. Indeed, context and sample matters in theory-driven inquiry (Bamberger & Pratt, 2010) and the sampling frame for the current study is but one test of the second alternative hypothesis of the current study.

Study Limitations

The results of this research were limited by the ability of the statistical testing used to detect the correlation between PSM and distributed leadership and whether such was moderated by years of service. This limitation was based on the

assumption that the power to detect the necessary sample size was sufficient to relate significant differences in the relationships between the variables. This could be noted as a limitation, as there may have been differences in the sample if the participant's responses were valid. Such limitation was predicated on questioning whether the self-reported answers to the survey were fully honest and trustworthy, which were unable to be rationally and subjectively tested.

Additionally, the use of purposive sampling caused the results not to be generalizable to the population of public sector managers in the United States. Because the eventual dataset was cross-sectional, this created a limitation of the study and presented the data as simultaneity bias and the threats to internal validity that it implies, specifically the history and maturation threats to internal validity. Another limitation was that the data was a mono-source bias because these data were collected using a single survey instrument. Finally, it must be noted that the social response bias based on using the PSM scale was a considerable limitation. The researchers recognized that the study's limitations were common to survey-based research in the social sciences.

Implications for Future Practice

Implications for future practice include leaders in the public sector recognizing the value of PSM for a predictive measure of applying distributed leadership style. The findings from this research could assist decision-making regarding hiring and promoting public sector employees to managerial positions. As PSM was considered to have a positive and statistically significant relationship with distributed leadership style, the suggestion that individuals who are highly motivated to serve the public are relatively willing to distribute their leadership authorities, even if just informally, can ensure the efficient and effective provision of public goods and services (Molnar et al., 2018). Moreover, as PSM presented a positive and significant predictor of leading public sector managers may find the use of a distributed style of leadership aligned with their public service motivation and therefore see the distribution of leadership authorities, informally, as fundamental to the effective and efficient provision of public goods and services (Molnar et al., 2018).

The distributed leadership style has been shown to enhance employee motivation, as well as performance at the individual and organizational levels (Belrhiti et al., 2020; Bolden, 2011). Because the relationship between PSM and the distributed leadership style have been shown to be statistically significant, PSM can be used as a predictor of distributive leadership style. As the distributed leadership style has been shown to enhance employee motivation (Belrhiti et al., 2020; Bolden, 2011), the implications of this research on distributed leadership is that distributed leadership can be expected to manifest itself from employees with high levels of PSM, and PSM can therefore be used to predict higher levels of employee motivation.

Considering years of service as the moderating variable, even though data from this research did not show a significant statistical relationship to support that the moderating variable does influence the relationship between PSM and distributive leadership style, the extent of years of service moderating the extent to which PSM covaries with distributed leadership among public sector managers was noted after 21 years of service. This indicates that employees with more than 21 years of service in the public sector prefer distributed leadership characteristics, which conflicts with the desires of their counterparts in the private sector.

Recommendations for Future Research

Future researchers should consider varied research designs to increase the reliability of these results. For example, adding a qualitative component to this research (in terms of a mixed methodology) with a descriptive research design could provide a subjective quality to the outcomes and determine if the perspective of those involved with PSM agreed that such could predict the relationship with distributed style of leadership. A qualitative case study approach could expand on a potential research agenda that shall follow from the research herein. Case study research concerning the application of distributed leadership as a characteristic of the supervisor-subordinate relationship could be explored to understand how the formal work processes undergirding the lines of communication encourage public services motivation. Based on the findings, expanding such research to include these perceptions would be advantageous in the public sector for the promotion of

PSM and to overcome the bifurcated limitation found in managerial government authority. To expand on such limited authority, future researchers must focus on such decision-making abilities based on PSM within the realm of the public sector could impact an increase in human capital. Future scholars could further investigate this limited managerial authority and therefore overcome the problem of limited managerial authority in the government, which can lead to adverse outcomes for the target audiences of public programs and policies.

Additionally, even though data from this research did not show a significant statistical relationship to support that the moderating variable does influence the relationship between PSM and distributive leadership style, the extent of years of service moderating the extent to which PSM covaries with distributed leadership among public sector managers was noted after 21 years of service. This indicates that employees with more than 21 years of service in the public sector prefer distributed leadership characteristics, which is in conflict with their counterparts in the private sector. Additional, comparative, research is suggested to better compare which leadership style is preferred among more tenured public and private sector leaders.

Summary

Through this cross-sectional quantitative study, the researcher aimed to address the extent to which the distributed leadership style is related to PSM. The findings suggested that PSM does covary with distributed leadership among public sector managers, and as distributed leadership increases, so does PSM, *ceteris paribus*. The extent of years of service moderating the extent to which PSM covaries with distributed leadership among public sector managers was noted only after 21 years of service.

The findings included evidence that distributed leadership was a means for public sector managers to circumnavigate the government bureaucracy to involve employees in the provision of public goods and services in such a way that results in more effective and efficient governance. This study serves as a resource for understanding further how the effects of distributed leadership on the performance of government employees predict the distributed leadership on the part of public

sector managers. Because of the positive performance impacts on government employees of public sector managers using the distributed leadership style, the results from this study based on collected and analyzed survey data suggested that the model PSM was a predictor of the distributed leadership style.

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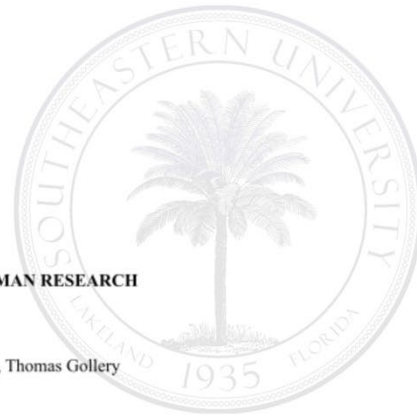
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Appendix

SOUTHEASTERN
UNIVERSITY

NOTICE OF APPROVAL FOR HUMAN RESEARCH

DATE: December 8, 2022
TO: James Punchard, Joshua Henson, Thomas Gollery
FROM: SEU IRB
PROTOCOL TITLE: Covariance of Public Service Motivation and Distributive Leadership - A Moderation Analysis
FUNDING SOURCE: NONE
PROTOCOL NUMBER: 22 BE 18
APPROVAL PERIOD: Approval Date: December 8, 2022 Expiration Date: December 7, 2023

Dear Investigator(s),

The Institutional Review Board (IRB) for the protection of human subjects has reviewed the protocol entitled, Covariance of Public Service Motivation and Distributive Leadership - A Moderation Analysis. The project has been approved for the procedures and subjects described in the protocol.

Any changes require approval before they can be implemented as part of your study. If your study requires any changes, the proposed modifications will need to be submitted in the form of an amendment request to the IRB to include the following:

Description of proposed revisions;
If applicable, any new or revised materials;
If applicable, updated letters of approval from cooperating institutions

If there are any adverse events and/or any unanticipated problems during your study, you must notify the IRB within 24 hours of the event or problem.

At present time, there is no need for further action on your part with the IRB.

This approval is issued under Southeastern University's Federal Wide Assurance 00006943 with the Office for Human Research Protections (OHRP). If you have any questions regarding your obligations under the IRB's Assurance, please do not hesitate to contact us.

Sincerely,

Rustin Lloyd
Chair, Institutional Review Board
irb@seu.edu