

*Arias, Maria Isabel; Guerrazzi, Luiz Antonio de Camargo ;  
Serra, Fernando Antonio Ribeiro*

## **APPROACHES IN THE STUDY OF PUBLIC ADMINISTRATION: ABIBLIOMETRIC ANALYSIS**

XL Encontro da Associação Nacional de  
PósGraduação e Pesquisa em Administração  
(ANPAD)

*25, 26, 27 y 28 de septiembre de 2016*

Arias, M.I, Guerrazzi, L.A.C, Serra, F.A.R. (2016). Dimensiones  
preliminares para un modelo de valor de la tecnología de la  
información en el sector público. *XL Encontro da Associação  
Nacional de PósGraduação e Pesquisa em Administração (ANPAD).*  
*Costa do Saúpe, Brasil. En RIDCA. Disponible en:*  
<http://repositoriodigital.uns.edu.ar/handle/123456789/4356>



Esta obra está bajo una Licencia Creative Commons  
Atribución-NoComercial-CompartirIgual 2.5 Argentina  
<https://creativecommons.org/licenses/by-nc-sa/2.5/ar/>

## APPROACHES IN THE STUDY OF PUBLIC ADMINISTRATION: A BIBLIOMETRIC ANALYSIS

**Autoria:** Maria Isabel Arias, Luiz Antonio de Camargo Guerrazzi, Fernando Antonio Ribeiro Serra

### Abstract

The relevance of Public Administration research has been recognized in several studies. The current paper addresses a bibliometric study on Public Administration research, with a particular concern about finding studies of e-government implementation on the justice system. Citation, co-citation, and factorial analyses were applied on a sample of 613 articles published in eight high quality journals. Factorial, content and co-citation analyses were coherent in classifying the 51 most cited works into four subfields of research: Public Sector Motivation, Decision-making and Management, E-government, and Management Theory. The results of content analysis suggest that the documents analyzed were mostly conceived in the United States to be applied in the executive branch of government. Thus, in emerging economies there seems to be a need to develop Public Administration research. It also seems reasonable to study e-government implementation on the justice system independently from applications in the executive power.

**Keywords:** public administration, bibliometric study, citation frequency, co-citation analysis, factorial analysis.

### INTRODUCTION

The relevance of Public Administration research has been recognized in several studies. Previous research suggest that increasing complexity of government, society (Raadschelders & Lee, 2011), and international issues have generated dramatic challenges and impacts upon the government structure and practices to manage it (Arellano-Gault, Demortain, Rouillard, & Thoenig, 2013). Consequently, practitioners have developed an interest in improving government performance (Kelman, 2007), whereas for academics Public Administration studies have provided a key source of knowledge creation about organizations (Arellano-Gault et al., 2013). In fact, authors recognize the significance of Public Administration research to help public agencies (Kelman, 2007) to identify something critical that is new or has been overlooked (Lan & Anders, 2000).

In this context, the analysis of academic publication in Public Administration becomes interesting to researchers. The literature identification, organization and synthesizing is useful to detect published articles on the discipline, have different perspectives of its issues and evolution (Vogel, 2013), and ascertain the state of the art in the field (Ferreira, Pinto, & Serra, 2014). For these purposes bibliometric analysis are considerably valuable.

This paper addresses a bibliometric study on Public Administration research, with a particular concern about finding studies about e-government implementation on the justice system. Hence, the purpose of this article is to identify the influence of the most cited authors in the field, the relationships among authors, and subtopics of research. In order to achieve this aim, citation, co-citation, and factorial analyses techniques were applied on a sample of articles published in high quality journals listed on 2014 Journal Citation Report (JCR) of the Social Sciences Edition of ISI Web of Science database.

The findings showed that research in Public Administrations has been conducted using four main approaches: Public Sector Motivation, Decision-making and Management, E-government, and Management Theory. As contributions to knowledge, this paper complements previous investigations (Kelman, 2007; Rodríguez Bolívar et al., 2010; Raadschelders & Lee, 2011; Rodríguez Bolívar et al., 2012; Arellano-Gault et al., 2013;

Joseph, 2013; Vogel, 2013; Beuren & Zonatto, 2014; Akim & Mergulhão, 2015; Alcaide Muñoz & Rodríguez Bolívar, 2015) by presenting existing knowledge in Public Administration research and providing a categorization in terms of research issues. This deeper understanding of the field also reveals research gaps that could guide researchers' direction on their future analyses, both in the entire field of Public Administration and in the subfield of e-government. In addition, it may provide support to government and academic institutions in the allocation of resources for research.

## LITERATURE REVIEW

As acknowledged by many authors (Kelman, 2007; Arellano-Gault et al., 2013; Vogel, 2013), there was a time when Public Administration and organization studies shared their research agendas. Literature was developed in a manner that allowed concepts and theoretical framework to be applied in both private and public sectors. Studies about functions of executives (Barnard, 1938), decision-making process (Lindblom, 1959; Cyert & March, 1963), work motivation of employees (Vroom, 1964), and environment dependence (Pfeffer & Salancik, 1978) were conceived for every type of organization, regardless its public or private nature.

Although authors like DiMaggio & Powell (1983) claimed that organization structures tend to be alike, the differences between public and private organizations introduced the academia to the study of those distinctions (Rainey, Backoff, & Levine, 1976; Perry & Rainey, 1988; Rainey & Bozeman, 2000). Therefore, a specific body of knowledge for Public Administration started to grow (Rainey, 1983a), even though difficulties emerge when trying to categorize an organization either as public or private (Bozeman, 1987).

Moreover, Public Administration began to be studied in light of different approaches, focusing on the peculiarities of: bureaucrats' decision-making (Downs, 1967), motivation (Niskanen, 1971), and behavior (Wilson, 1989); public employees' working attitudes, motives, and preferences (Rainey, 1982; Perry & Porter, 1982; Rainey, 1983b; Perry & Wise, 1990; Wittmer, 1991; Gabris & Simo, 1995; Perry, 1996; Crewson, 1997; Perry, 1997, 2000; Houston, 2000; Lewis & Frank, 2002; Wright, 2004; Moynihan & Pandey, 2007; Wright, 2007); managers perception of red tape (Rainey, Pandey & Bozeman, 1995); public institutions' goal ambiguity (Chun & Rainey, 2005), effectiveness (Rainey & Steinbauer, 1999), and performance (Moore, 1995).

In addition, since the 1990s research was developed to study the reforms made in governmental agencies to apply management techniques from the private sector (Hood, 1991; Osborne & Gaebler, 1992; Gore, 1993; Terry, 1998; Barzelay, 2001; Boyne, 2002; Pollitt & Bouckaert, 2004; Moynihan, 2008), as well as studies referred to privatization (Savas, 2000), and network-focused management (O'Toole Jr., 1997; Meier & O'Toole Jr., 2001). Lately, since the 2000s, there has been research in e-government, which includes the use of Information Technology in government operations, and its effects on citizens' satisfaction and democratic standards (Layne & Lee, 2001; Fountain, 2001; Ho, 2002; Moon, 2002; West, 2004; Welch, Hinnant, & Moon, 2005; Norris & Moon, 2005).

In light of these variety of approaches, some researches attempt to present a comprehensive literature review in Public Administration, its' trends and evolution on discipline-specific journals (Lan & Anders, 2000; Raadschelders & Lee, 2011), and the state of the art in the field in light of the differences among public and private organizations frameworks (Kelman, 2007; Arellano-Gault et al., 2013).

Furthermore, bibliometric studies have been developed to understand Public Administration research: as compared to organization studies (Vogel, 2013); particular activities of public institutions such as health care (Almeida-Filho, Kawachi, Filho, & Dachs,

2003; Soteriades & Falagas, 2006; Clarke et al., 2007; Chen et al., 2011; Milat, Bauman, Redman, & Curac, 2011) and research funding (Abramo, D'Angelo, & Caprasecca, 2009); university-industry research collaborations (Calvert & Patel, 2003); networks in Public Administration (Lecy, Mergel, & Schmitz, 2014); and Public-Private Partnership (Marsilio, Cappellaro, & Cuccurullo, 2011).

In Brazil, Capobianco et al. (2011) studied scientific cooperation networks between institutions and authors that research in public policy evaluation. Using bibliometric procedures, they analyzed published articles in *Anpad* events in a period of 10 years from 2000 to 2009: 45 articles were published in the *EnAnpad* circle and 26 in the *EnAPG* circle. Likewise, Roza et al. (2011) investigated the characterization of scientific production in public accounting by analyzing a total of 105 articles published in annals of *EnAPG* (86 articles) and *Revista de Administração Pública* (19) in the period 2004-2009.

Furthermore, Beuren & Zonatto (2014) aim to identify the profile of the articles on internal control in the public sector, published in 116 journals indexed in Scopus database. They used quantitative techniques and content analyzes to examine 133 articles published from 1983 to 2011. Only one of those journals was Brazilian (*Revista de Administração Pública*), the others were international. Finally, Akim & Mergulhão (2015) presented intellectual production of performance measurement in Public Administration research between 1980 and February 2013. They applied citation and co-citation analyses on 2 samples obtained from 2 databases: ISI Web of Science, for international research, and SciELO, for Brazilian research.

Other bibliometric studies have recently been developed to identify trends in terms of methods used and research opportunities in e-government. In Spain, Rodríguez Bolívar et al. (2010) examined 321 articles published in journals listed in ISI in the fields of Information Science and Library Science (15 journals) and Public Administration (25), during the period 2000-2009. Conversely, Rodríguez Bolívar et al. (2012) analyzed 157 articles published in 22 journals listed only within the field of Public Administration, from 2000 to 2008, whereas Alcaide Muñoz & Rodríguez Bolívar (2015) examined 1,110 articles published in 73 journals in the field of Information and Library Sciences, during the period 2000-2014.

## METHOD

This research was conducted using bibliometric techniques, which rely on mathematical and statistical calculations to analyze publications (Raut, Sahu, & Ganguly, 2008), aggregate and reorganize citation data gathered from them (Vogel, 2013). The scientific work on a discipline can be measured quantitatively and objectively using these methods that examine large sets of documentation (Diodato, 1994).

### Data collection procedures and sample

The data analyzed in this study was collected from eight top journals listed on 2014 Journal Citation Report (JCR) of the Social Sciences Edition of ISI Web of Science database. Regarding the aim to identify previous research in Public Administration and e-government implementation on the justice system, two categories of discipline specific journals were selected: 4 focused on Information Technology research, and 4 on Public Administration research (Table 1).

**Table 1.** Journals and sample

Discipline	Journal	Acronym	2014	Available	Papers	%
------------	---------	---------	------	-----------	--------	---

			<b>Impact Factor</b>	<b>papers collected</b>	<b>(a)</b>	
Information Technology	Journal of Information Technology	JIT	4.525	661	14	2.1
	Research Policy	RP	3.117	2,840	42	1.5
	The Journal of Strategic Information Systems	TJSIS	2.692	450	20	4.4
	Management Science	MS	2.482	6,292	14	0.2
Public Administration	Journal of Public Administration Research and Theory	JPART	3.285	610	92	15.1
	Journal of Policy Analysis and Management	JPAM	2.237	2,386	35	1.5
	Public Administration Review	PAR	1.973	7,491	290	3.9
	American Review of Public Administration	ARPA	1.371	714	106	14.8
			<b>TOTAL</b>	<b>21,444</b>	<b>613</b>	

Source: Data collected from ISI Web of Science. Computations by the authors.

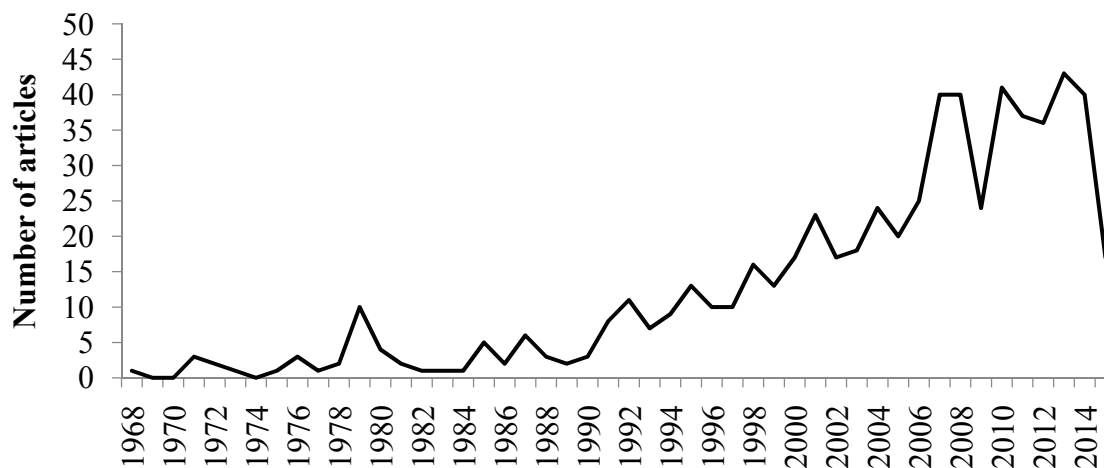
(a) Sample as % of available papers.

This procedure adopts the recommendation of Alcaide Muñoz & Rodríguez Bolívar (2015), who argued that a single information resource limits the unreached theories and practical implications of research. In addition, analyzing articles collected from multiple journals has the advantage of broader coverage and of avoiding potential bias or editorial shifts that a research conducted in a single journal could entail (Ferreira, Storopoli, & Serra, 2014).

In order to collect a sample of articles from the selected journals, a keyword search was conducted using the following keywords: “public sector”, “public institution”, “public organization”, “judicial administration”, and “e-government”; all of them with a subsequent “\*” to capture possible variations of the wording. As a consequence of this criteria, from a database initially composed of 21,444 available papers, 613 were collected (Table 1). According to Ferreira, Pinto et al. (2014), assessing the content of the articles from the keywords seems reasonable, because researchers supply them to reflect the field of study, context, theories, and methods. Table 1 also shows how the sample is distributed among the journals selected.

The 613 papers of the sample were published from 1968 to 2015, resulting in an observation period of 48 years (Figure 1). Figure 1 displays the evolution of publications in the dataset denoting a considerable ascendant in 2007 (40 articles) and a peak number in 2013 (43). For the year 2015 the sample considers papers published until July 2015.

**Figure 1.** Evolution of publications



Source: Data collected from ISI Web of Science. Computations by the authors.

### Procedures of analyses

The software Bibexcel ([www.umu.se/inforsk/Bibexcel](http://www.umu.se/inforsk/Bibexcel)) was used to retrieve from the sample of 613 articles relevant bibliometric information, such as authors, title, keywords, references, year, and journal. To analyze that data, this study comprised three main types of procedures: citation, co-citation and factorial analyses.

Citation analysis was conducted to identify works driving the intellectual development of Public Administration research (Ferreira, et al., 2014). According to Vogel (2013, p. 385), this “is especially useful when there is a lack of clarity on the segmentation, boundaries, and interrelations of scholarly subfields, as is the case in organization studies and public administration”. This procedure involved analyzing all references from the 613 articles in the sample, summarizing, and ranking that data.

Co-citation analysis transforms the list of references into a square matrix with the works as columns and rows and the co-citation frequencies of document pairs as values in the cells (Vogel, 2013). The result of analyzing that matrix is a complex network of relationships among authors and their theories (Ferreira, et al., 2014), which compose relatively homogenous clusters in terms of content (Vogel, 2013). In this paper the co-citation analysis was restricted to the 51 most frequently cited documents. A co-citation matrix was created by counting the frequency with which these 51 documents were jointly cited as a pair by the 613 articles of the sample.

The data from that matrix was further processed through factorial analysis using SPSS statistical software, a Rotated Component Matrix was created. The extraction method employed was Principal Component Analysis and the rotation method Varimax with Kaiser Normalization. This implies that the co-citation matrix is converted to a correlation matrix based on Pearson’s coefficient, in which high correlations link documents that were frequently cited together (Vogel, 2013). As a result, the articles that are theoretically proximate, or dealing with a certain topic, tend to load on the same factor. The loadings indicate how an article correctly classifies into that factor and a larger number of documents in the factor accounts for a stronger impact in the field (Ferreira, et al., 2014).

Finally, in order to have a visual representation of the connection strength between the 51 articles and the clusters identified, the networks were mapped, based on the co-citation matrix, with Multi-Dimensional Scale (MDS) techniques using SPSS statistical software.

## RESULTS



## Citation analysis

Table 2 includes the ranking of 51 top-cited documents by the 613 papers of the dataset, their citation frequency and relative citation frequency. These works had received at least 16 citations. The most cited document was Osborne & Gaebler (1992), followed by Rainey (1983a) and Wilson (1989).

**Table 2.** Ranking of the 51 most cited documents

<b>Rank</b>	<b>Reference (a)</b>	<b>No citations</b>	<b>% (b)</b>
1	Osborne & Gaebler (1992)	79	12.9
2	Rainey (1983a)	57	9.3
3	Wilson (1989)	41	6.7
4	Perry & Wise (1990)	39	6.4
5	Perry (1996)	33	5.4
6	Bozeman (1987)	32	5.2
7	Perry & Rainey (1988)	32	5.2
8	Rainey & Steinbauer (1999)	29	4.7
9	Hood (1991)	28	4.6
10	Crewson (1997)	27	4.4
11	Rainey (1983b)	27	4.4
12	Moon (2002)	26	4.2
13	Fountain (2001)	25	4.1
14	Moore (1995)	24	3.9
15	Rainey & Bozeman (2000)	24	3.9
16	Downs (1967)	23	3.8
17	Perry & Porter (1982)	23	3.8
18	DiMaggio & Powell (1983)	22	3.6
19	Norris & Moon (2005)	22	3.6
20	West (2004)	22	3.6
21	Ho (2002)	21	3.4
22	Boyne (2002)	20	3.3
23	Chun & Rainey (2005)	19	3.1
24	Cyert & March (1963)	19	3.1
25	Houston (2000)	19	3.1
26	Perry (1997)	19	3.1
27	Rainey (1982)	19	3.1
28	Savas (2000)	19	3.1
29	Gore (1993)	18	2.9
30	Lewis & Frank (2002)	18	2.9
31	Perry (2000)	18	2.9
32	Rainey et al. (1976)	18	2.9
33	Welch et al. (2005)	18	2.9

34	Wittmer (1991)	18	2.9
35	Barzelay (2001)	17	2.8
36	Layne & Lee (2001)	17	2.8
37	Moynihan & Pandey (2007)	17	2.8
38	Moynihan (2008)	17	2.8
39	Pfeffer & Salancik (1978)	17	2.8
40	Pollitt & Bouckaert (2004)	17	2.8
41	Rainey et al. (1995)	17	2.8
42	Barnard (1938)	16	2.6
43	Gabris & Simo (1995)	16	2.6
44	Lindblom (1959)	16	2.6
45	Meier & O'Toole Jr. (2001)	16	2.6
46	Niskanen (1971)	16	2.6
47	O'Toole Jr. (1997)	16	2.6
48	Terry (1998)	16	2.6
49	Vroom (1964)	16	2.6
50	Wright (2004)	16	2.6
51	Wright (2007)	16	2.6

Source: Data collected from ISI Web of Science. Computations by the authors.

(a) The documents cited an equal number of times are displayed in an alphabetic order.

(b) % is relative to the 613 articles in our sample.

### Factorial analysis

The factor analysis used a co-citation matrix of the 51 most cited documents. A total of 4 factors were extracted, which jointly explain 60.5% of the variance. Table 3 shows the results of classifying the works into the factor on which they loaded highest and the themes of each factor are the outcome of the designation by the authors.

**Table 3.** Factor Analysis

<b>Factor 1</b>		<b>Factor 2</b>	
<b>Public Sector Motivation</b>		<b>Decision-making and Management</b>	
Lewis & Frank (2002)	0.889	Chun & Rainey (2005)	0.836
Rainey (1982)	0.879	Barnard (1968)	0.819
Houston (2000)	0.874	Moynihan (2008)	0.775
Moynihan & Pandey (2007)	0.869	Wright (2004)	0.765
Gabris & Simo (1995)	0.865	Bozeman (1987)	0.729
Wittmer (1991)	0.826	Downs (1967)	0.676
Wright (2007)	0.819	Rainey et al. (1995)	0.636
Crewson (1997)	0.810	Perry & Rainey (1988)	0.634
Perry (1996)	0.774	Boyne (2002)	0.611
Perry & Porter (1982)	0.761	Lindblom (1959)	0.598
Perry & Wise (1990)	0.733	Rainey & Bozeman (2000)	0.319
Vroom (1964)	0.670		



Rainey et al. (1976)	0.604
Perry (1997)	0.597
Rainey (1983a)	0.576
Rainey (1983b)	0.558
Rainey & Steinbauer (1999)	0.535
Perry (2000)	0.498

<b>Factor 3</b>		<b>Factor 4</b>	
<b>E-government</b>		<b>Management Theory</b>	
Welch et al. (2005)	0.909	Terry (1998)	0.859
Layne & Lee (2001)	0.882	Savas (2000)	0.737
West (2004)	0.820	Moore (1995)	0.699
Fountain (2001)	0.810	Pollitt & Bouckaert (2004)	0.671
Ho (2002)	0.783	Wilson (1989)	0.666
Moon (2002)	0.756	Barzelay (2001)	0.660
Norris & Moon (2005)	0.740	Pfeffer & Salancik (1978)	0.659
		Hood (1991)	0.623
		Cyert & March (1963)	0.608
		DiMaggio & Powell (1983)	0.585
		Gore (1993)	0.563
		Niskanen (1971)	0.521
		Meier & O'Toole Jr. (2001)	0.495
		Osborne & Gaebler (1992)	0.401
		O'Toole Jr. (1997)	0.350

Source: Data collected from ISI Web of Science. Computations by the authors.

Notes: 1. Values are the loadings in the factor. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. 2. Due to the content and consistency with the groups, two cases with factor loadings below 0.4 were included, which although not ideal (Shafique, 2013), have an acceptable value above 0.3.

The content analysis confirmed the categories determinate in Table 3 and allowed to understand and label them. The summarize content of the 51 documents is shown in Appendix I. At the core of Public Administration studies, 4 research themes emerged: Public Sector Motivation, Decision-making and Management, E-government, and Management Theory.

**Factor 1** emerged with 18 references and is referred to Public Sector Motivation, which has been defined as “an individual’s predisposition to respond to motives grounded primarily or uniquely in public institutions” (Perry, 1996, p. 5). Rainey and Perry are influential authors in this subtopic, having each of them contributed with 5 articles. Although the majority of the documents in this cluster allude directly to employee motivation in public organizations, and even if one of them concluded that Public Service Motivation had an insignificant effect on employee behavior and attitudes (Gabris & Simo, 1995), there are others works that involved more comprehensive studies.

In fact, the study of Vroom (1964) could be used both in private and public institutions because it presented individual workplace behavior to explain the factors that lead people to make choices on their careers, and achieve job satisfaction and performance. Rainey et al. (1976) studied differences among public and private organizations. Moreover, Rainey (1983a) tried to understand the basis aspects of public institution, comprising employees’ motivation,

work attitudes and behaviors. In their study of effectiveness in government institutions, Rainey & Steinbauer (1999) outlined that the conceptual elements that explain it serve as forms of motivation for people who work in public agencies.

**The second factor** identified includes 11 references. Among them, Rainey continues to appear as an influential author with 4 articles, followed by Bozeman who provided 3, in 2 of them as coauthor with Rainey. The documents in this factor refer to Decision-making and Management as they study the cooperation nature of organizations and functions of executives (Barnard, 1938), decision-making by public administrators (Lindblom, 1959), and management in public organizations (Downs, 1967). In the majority of these studies, there was a considerable interest in comparing public and private organizations (Rainey & Bozeman, 2000) and understanding the relevance of that distinction (Bozeman, 1987; Perry & Rainey, 1988).

Rainey et al. (1995) compared managers' perception of red tape in public and private sectors. Chun & Rainey (2005) presented a model to measure goal ambiguity in public institutions based on the belief that they have more vagueness of their goals as compared to the ones of business organizations. Although Wright (2004) did not assess whether public organizations are different from private organizations, he improved the understanding of motivational context in different types of organizations. Other studies discussed that given the differences between public and private organizations, it was difficult to apply management techniques from the private sector to the public sector (Boyne, 2002), a process called New Public Management in the United States.

**The third factor** comprises 7 references and all of them were written by different authors. These documents considered e-government research, studying its' level of development (Layne & Lee, 2001), challenges (Fountain, 2001), and effects on citizens' satisfaction and trust (West, 2004; Welch et al., 2005). In addition some studies focused on the adoption of e-government by United States local governments (Ho, 2002; Moon, 2002; Norris & Moon, 2005).

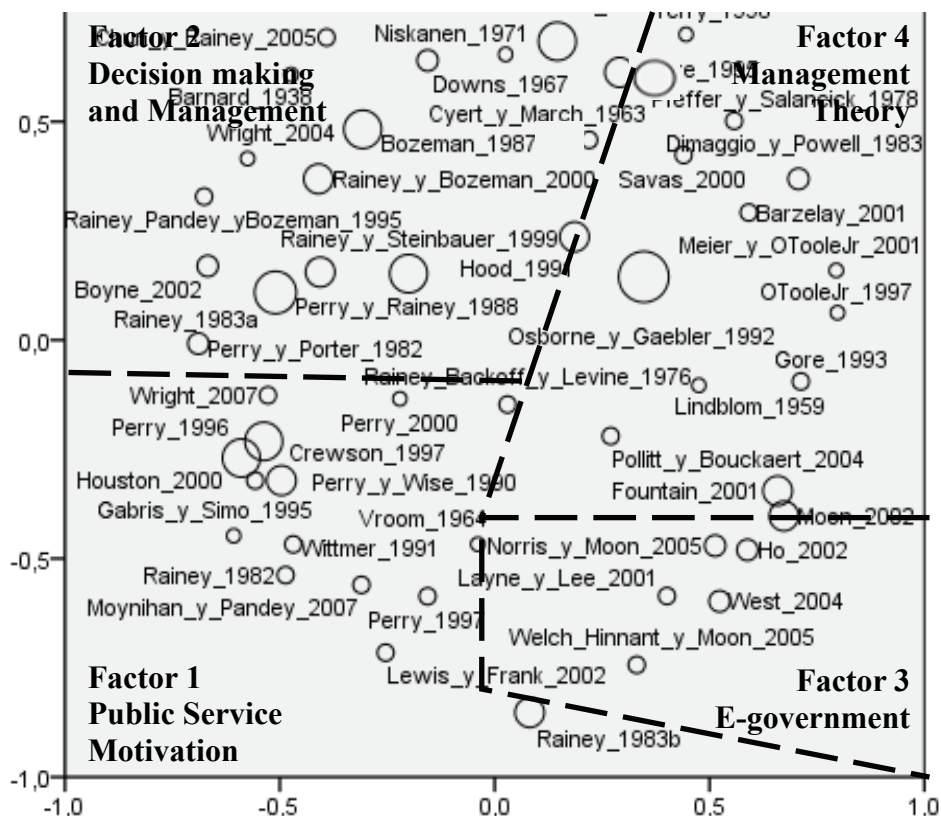
**The last factor** alludes to Management Theory, including 15 documents which are mostly books. The factor is heterogeneous in terms of the authors that contributed to its conformation. This factor comprehends some documents that refer to public and private organizations: Cyert & March (1963) discussed decision-making processes; Pfeffer & Salancik (1978) presented concepts of environment dependence; and DiMaggio & Powell (1983) claimed that organization structures tend to be homogeneous.

However, other documents are bounded to Public Administration field and refer to bureaucracy, managers' behavior (Niskanen, 1971; Wilson, 1989), efficiency and performance (Moore, 1995), as well as network management (O'Toole Jr., 1997; Meier & O'Toole Jr. (2001). Research was also developed on privatization (Savas, 2000) and reforms made in government organizations to apply management techniques from private institutions, as the American New Public Management pretended (Hood, 1991; Osborne & Gaebler, 1992; Gore, 1993; Terry 1998).

### Co-citation networks

Figure 2 displays interconnections among the 51 most cited documents mapped with MDS techniques. Each node of this figure represents a document. The nodes' size reflects the citation frequency of the documents, while the circles proximity denotes the relationship between them. Figure 2 confirms the 4 clusters identified with the factorial analysis. In this figure, a strong tie between the works that compose factor 3 can be seen. This implies that e-government is a subfield of research reasonably different from the others.

Figure 2. Co-citation map



Source: Data collected from ISI Web of Science. Computations by the authors in Bibexcel and drawn using SPSS.

Figure 2 also shows that although Perry & Rainey (1988) and Lindblom (1959) are included in factor 2, they are proximate to factors 1 and 4, which means that they are frequently cited with works of factors 1 and 4. In the case of Perry & Rainey (1988) this could be explained because they reviewed and critiqued literature that compares public and private organizations, including aspects related with employees' behavior and management techniques. Similarly, Lindblom (1959) studied the allocation of employees' and managers' responsibilities in the decision-making process.

## DISCUSSION

The current paper addresses a bibliometric study on Public Administration research. Citation, co-citation, and factorial analyses were applied on a sample of 613 articles published in 8 top ranked journals.

The results of the citation analysis showed a preference to cite older articles, conversely to the findings of Akim & Mergulhão (2015). The three most cited documents were books. The book of Osborne & Gaebler (1992), which discusses New Public Management process, has a considerable influence in the field as it appears as the most cited document in the sample (Table 2), analogous to the results of Akim & Mergulhão (2015). Factorial (Table 3), content (Appendix I) and co-citation analyses (Figure 2) were coherent in classifying the 51 most cited works into a single subtopic of research in Public Administration, although it is possible that certain documents contribute to more than one research subtopic, as Perry & Rainey (1988) and Lindblom (1959) (Figure 2). The four subfields identified are: Public

Sector Motivation, Decision-making and Management, E-government, and Management Theory.

Public Sector Motivation appears to be the subfield that has the stronger impact in the field because it includes a larger number of documents, which are related to public employees' motives, preferences, working attitudes, and job satisfaction. Vogel (2013) addressed that this subfield emerges primarily in North American, studying behavioral orientations of public employees, which are embedded in more general public and private management comparisons. Also compared to private organizations are functions of executives, decision-making and management in public organizations, which are studied in the second factor. This factor is similar to the one that Vogel (2013) called Public Choice.

E-government appears to be an emerging subfield of research reasonably different from the others. It studies the use of Information Technology and internet in government operations and public service, focusing on the United States and, particularly, in local governments. As acknowledged by Alcaide Muñoz & Rodríguez Bolívar (2015), e-government has penetrated the public sector with an increase of research from 2000 to 2014, thus this subfield is relatively new (Joseph, 2013).

Management Theory refers to manuals and recommendations in aspects such as managers' behavior, bureaucracy, efficiency and performance, and reforms that can be applied in public institutions. Improving government performance was considered a topic worthy of significant research but with insufficient academic attention (Kelman, 2007), although literature on performance measurement in public management has increased over the years, process that may have been driven by the development of the New Public Management (Akim & Mergulhão, 2015). Since 1990, New Public Management was a typical issue of research (Arellano-Gault et al., 2013) and was identified by Vogel (2013) as the larger subfield of Public Administration research, which further aggravated the separation between public and private organizations research.

The present study includes in factor 4 both New Public Management and collaborative and network management, approaches that were found by Raadschelders & Lee (2011) since 1980 and 2000, respectively. Contrary, Vogel (2013) presented topics included in this factor as independent subfields called (New) Public Management, Governance Networks, Performance Management, and Public-Private Partnership. Three works included in this cluster (Niskanen, 1971; Osborne & Gaebler, 1992; Pollitt & Bouckaert, 2000) were among the 20 most cited publications both in North America and Europe (Vogel, 2013).

In general, the results of content analysis suggest that the 51 most cited documents were mostly conceived in the United States, followed by the United Kingdom. This is similarly to the results of Rodríguez Bolívar et al. (2010), Beuren & Zonatto (2014), Akim & Mergulhão (2015), and Alcaide Muñoz & Rodríguez Bolívar (2015), who argue that their conclusions may only be taken into consideration by researchers from these countries, because their interest may not be shared by other scholars. In fact, Akim & Mergulhão (2015) found that references analyzed from SciELO database were not significant convergence with the ones on ISI. In addition, those 51 documents were developed to be mostly applied in the executive branch of government and not exclusively in judicial power, not to mention e-government implementation on it. Thus, research gaps seem to emerge in the study of Public Administration in Latin American countries or, at least the need to develop research in these countries. In addition, the peculiarities of the justice system make it reasonable to study it independently from the executive power; likewise, Political Control (Vogel, 2013) studies the institutional separation of power between legislative and executive institutions.

Regarding to e-government, Rodríguez Bolívar et al. (2010) and Alcaide Muñoz & Rodríguez Bolívar (2015) highlighted the need to develop conceptual frameworks, including quantitative models that allow measuring its' efficiency, evaluating results, and adapting

reforms for the environment in which they are applied. Similarly, Rodríguez Bolívar et al. (2012) proposed the analysis of open government to improve democracy mainly in emerging economies and Joseph (2013) found that although the steady increase of e-government studies, their majority is occurring in Europe, North America, and Asia, which highlighted the opportunity for more research in regions such as South America.

As contributions to knowledge, this article complements previous investigations by identifying existing knowledge in Public Administration. It also presents relationships among documents to classify them in research subfields. Regarding to practical implications, this understanding of the field suggests the potential for future research. This study may also provide support to government institutions to assess resources allocation for research. Equally, academic units can determine the correspondence of their research to relevant topics of nowadays.

This study has limitations that are inherent to bibliometric studies such as the selection of journals, which do not cover all research published. Although the findings assessed the impact of books that were cited by the articles in the sample, future research can include knowledge from a wider variety of sources such as monographs and conference annals. Also, the selection of journals can be expanded by including those specializing in other areas, such as Computer Science, Communication or Information and Library Sciences. Furthermore, additional databases can be used to collect articles from different regions of the world, such as Scopus or SciELO for Latin American studies.

The second limitation refers to the need to choose keywords to obtain the sample because although they seem reasonable to infer the document topics, they actually are an imperfect proxy. This article, despite having captured a significant amount of publications, does not consider all the articles relating to Public Administration and e-government implementation on the justice system. This was clearly seen because the results yield no articles about this particular subject.

In this study, only citations and co-citations for the entire 1948-2015 period were analyzed. Thus, the third limitation is the lack of consideration of the documents evolution over time. Associated with this, another limitation is temporality since, as shown in the findings, as a result of focusing on citing works, former trends in research are emphasized, overshadowing contemporary ones (Vogel, 2013) and classic and seminal works may be more cited, because older articles are more likely to be known (Ferreira, et al., 2014). This might be partially offset by incorporating a recent period of analysis to the study or dividing the period studied into sub periods.

In this research the context in which the documents are cited was not analyzed; only co-citation analyses was used because of the assumption that the more frequently a pair of works is co-cited, the more intellectual proximity they have. Even though this could be incorrect in particular cases, is expected to be accurate on large databases (Vogel, 2013). However, future studies may perform a deeper content analysis to identify different contexts in which the same reference is mentioned.

In addition to the proposes for further research introduced in response to the limitations previously described, forthcoming studies may extend the findings of this paper by conducting a bibliometric study on one of the subfields of research identified. Furthermore, according to the findings, it would be relevant to replicate this study using journals included in databases like Scopus, SciELO, EBSCO, Science Direct, Dialnet, or Latindex, which may include more research from emerging countries.

### **Concluding remarks**

There was a time when public and private organizations studies shared their research agendas. Their differences lately introduced the academia to their study separately and a



specific body of knowledge for public administration started to grow. Moreover, public organizations have been investigated from several approaches. In light of them, bibliometric studies have been developed to understand public administration research by identifying topics and subfields of research.

The findings in this study present existing knowledge in public administration research and provide a categorization in terms of research subfields. They highlight research gaps, both in the entire field of public administration and in the subfield of e-government. In emerging countries there seems to be a need to develop public administration research that manages to obtain high impact in the field. It also seems reasonable to study e-government implementation on the justice system independently from applications in the executive power. This study may help researchers to focus on the literature that must be reviewed in their quest for making new contributions to the field and to propose a future research agenda that could guide them. In addition, it may provide support to government and academic institutions in the allocation of resources for research.

## REFERENCES

- Abramo, G., D'Angelo, C., & Caprasecca, A. (2009). Allocative efficiency in public research funding: Can bibliometrics help? *Research Policy*, 38(1), 206–215.
- Akim, É., & Mergulhão, R. (2015). Panorama da produção intelectual sobre a medição de desempenho na gestão pública. *Revista de Administração Pública*, 49(2), 337–366.
- Alcaide Muñoz, L., & Rodríguez Bolívar, M. (2015). Understanding e-government research a perspective from the information and library science field of knowledge. *Internet Research*, 25(4), 633–673.
- Almeida-Filho, N., Kawachi, I., Filho, A., & Dachs, J. (2003). Research on Health Inequalities in Latin America and the Caribbean: Bibliometric Analysis (1971–2000) and Descriptive Content Analysis (1971–1995). *American Journal of Public Health*, 93(12), 2037–2043.
- Arellano-Gault, D., Demortain, D., Rouillard, C., & Thoenig, J. (2013). Bringing Public Organization and Organizing Back In. *Organization Studies*, 34(2), 145–167.
- Barnard, C. (1938). *The Functions of the Executive*. Harvard University Press.
- Barzelay, M. (2001). *The New Public Management: Improving Research and Policy Dialogue*. University of California Press.
- Beuren, I. M., & Zonatto, V. C. da S. (2014). Perfil dos artigos sobre controle interno no setor público em periódicos nacionais e internacionais. *Revista de Administração Pública*, 48(5), 1135–1163.
- Boyne, G. A. (2002). Public and Private Management: What's the Difference? *Journal of Management Studies*, 39(1), 97–122.
- Bozeman, B. (1987). *All Organizations Are Public: Bridging Public and Private Organizational Theories*. Proquest/Csa Journal Division.
- Calvert, J., & Patel, P. (2003). University-industry research collaborations in the UK: Bibliometric trends. *Science and Public Policy*, 30(2), 85–96.
- Capobiango, R., Silveira, S., Zerbato, C., & Mendes, A. (2011). Análise das redes de cooperação científica através do estudo das coautorias dos artigos publicados em eventos da Anpad sobre avaliação de políticas públicas. *Revista de Administração Pública*, 45(6), 1869–1890.
- Chen, Y., Wu, J., Haschler, I., Majeed, A., Chen, T., & Wetter, T. (2011). Academic Impact of a Public Electronic Health Database: Bibliometric Analysis of Studies Using the General Practice Research Database. *PLoS ONE*, 6(6), e21404.



- Chun, Y., & Rainey, H. (2005). Goal Ambiguity in U.S. Federal Agencies. *Journal of Public Administration Research and Theory*, 15(1), 1–30.
- Clarke, A., Gatineau, M., Grimaud, O., Royer-Devaux, S., Wyn-Roberts, N., Bis, I., & Lewison, G. (2007). A bibliometric overview of public health research in Europe. *The European Journal of Public Health*, 17(suppl 1), 43–49.
- Crewson, P. (1997). Public-Service Motivation: Building Empirical Evidence of Incidence and Effect. *Journal of Public Administration Research and Theory*, 7(4), 499–518.
- Cyert, R., & March, J. (1963). *A Behavioral Theory of the Firm*. Prentice-Hall.
- DiMaggio, P., & Powell, W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48(2), 147–160.
- Diodato, V. (1994). *Dictionary of Bibliometrics*. Psychology Press.
- Downs, A. (1967). *Inside Bureaucracy*. Harper Collins.
- Ferreira, M., Pinto, C., & Serra, F. (2014). The transaction costs theory in international business research: a bibliometric study over three decades. *Scientometrics*, 98(3), 1899–1922.
- Ferreira, M., Storopoli, J., & Serra, F. (2014). Two Decades of Research on Strategic Alliances: Analysis of Citations, Co-citations and Themes Researched. *Revista de Administração Contemporânea*, 18(spe), 109–133.
- Fountain, J. (2001). *Building the Virtual State: Information Technology and Institutional Change*. Brookings Institution Press.
- Gabris, G., & Simo, G. (1995). Public Sector Motivation as an Independent Variable Affecting Career Decisions. *Public Personnel Management*, 24(1), 33–51.
- Gore, A. (1993). *From Red Tape to Results: Creating a Government That Works Better & Costs Less. Report of the National Performance Review*. U.S. Government Printing Office.
- Ho, A. (2002). Reinventing Local Governments and the E-Government Initiative. *Public Administration Review*, 62(4), 434–444.
- Hood, C. (1991). A Public Management for all Seasons. *Public Administration*, 69(1), 3–19.
- Houston, D. (2000). Public-Service Motivation: A Multivariate Test. *Journal of Public Administration Research and Theory*, 10(4), 713–728.
- Joseph, R. (2013). A structured analysis of e-government studies: Trends and opportunities. *Government Information Quarterly*, 30(4), 435–440.
- Kelman, S. (2007). Public Administration and Organization Studies. *The Academy of Management Annals*, 1(1), 225–267.
- Lan, Z., & Anders, K. (2000). A Paradigmatic View of Contemporary Public Administration Research An Empirical Test. *Administration & Society*, 32(2), 138–165.
- Layne, K., & Lee, J. (2001). Developing Fully Functional E-government: A Four Stage Model. *Government Information Quarterly*, 18(2), 122–136.
- Lecy, J., Mergel, I., & Schmitz, H. (2014). Networks in Public Administration: Current scholarship in review. *Public Management Review*, 16(5), 643–665.
- Lewis, G., & Frank, S. (2002). Who Wants to Work for the Government? *Public Administration Review*, 62(4), 395–404.
- Lindblom, C. E. (1959). The Science of “Muddling Through.” *Public Administration Review*, 19(2), 79–88.
- Marsilio, M., Cappellaro, G., & Cuccurullo, C. (2011). The Intellectual Structure Of Research Into PPPs. *Public Management Review*, 13(6), 763–782.
- Meier, K., & O’Toole Jr., L. (2001). Managerial Strategies and Behavior in Networks: A Model with Evidence from U.S. Public Education. *Journal of Public Administration Research and Theory*, 11(3), 271–294.

- Milat, A., Bauman, A., Redman, S., & Curac, N. (2011). Public health research outputs from efficacy to dissemination: a bibliometric analysis. *BMC Public Health*, 11(1), 934.
- Moon, M. (2002). The Evolution of E-Government among Municipalities: Rhetoric or Reality? *Public Administration Review*, 62(4), 424–433.
- Moore, M. (1995). *Creating Public Value: Strategic Management in Government*. Harvard University Press.
- Moynihan, D. (2008). *The Dynamics of Performance Management: Constructing Information and Reform*. Georgetown University Press.
- Moynihan, D., & Pandey, S. (2007). The Role of Organizations in Fostering Public Service Motivation. *Public Administration Review*, 67(1), 40–53.
- Niskanen, W. (1971). *Bureaucracy and Representative Government*. Transaction Publishers.
- Norris, D., & Moon, M. (2005). Advancing E-government at the Grassroots: Tortoise or Hare? *Public Administration Review*, 65(1), 64–75.
- Osborne, D., & Gaebler, T. (1992). *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*. Prentice Hall of India.
- O’Toole Jr., L. (1997). Treating Networks Seriously: Practical and Research-Based Agendas in Public Administration. *Public Administration Review*, 57(1), 45–52.
- O’Toole Jr., L., & Meier, K. (1999). Modeling the Impact of Public Management: Implications of Structural Context. *Journal of Public Administration Research and Theory*, 9(4), 505–526.
- Perry, J. (1996). Measuring Public Service Motivation: An Assessment of Construct Reliability and Validity. *Journal of Public Administration Research and Theory*, 6(1), 5–22.
- Perry, J. (1997). Antecedents of Public Service Motivation. *Journal of Public Administration Research and Theory*, 7(2), 181–197.
- Perry, J. (2000). Bringing Society In: Toward a Theory of Public-Service Motivation. *Journal of Public Administration Research and Theory*, 10(2), 471–488.
- Perry, J., & Porter, L. (1982). Factors Affecting the Context for Motivation in Public Organizations. *Academy of Management Review*, 7(1), 89–98.
- Perry, J., & Rainey, H. (1988). The Public-Private Distinction in Organization Theory: A Critique and Research Strategy. *Academy of Management Review*, 13(2), 182–201.
- Perry, J., & Wise, L. (1990). The Motivational Bases of Public Service. *Public Administration Review*, 50(3), 367–373.
- Pfeffer, J., & Salancik, G. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. Harper & Row.
- Pollitt, C., & Bouckaert, G. (2004). *Public Management Reform: A Comparative Analysis*. Oxford University Press.
- Raadschelders, J., & Lee, K. (2011). Trends in the Study of Public Administration: Empirical and Qualitative Observations from Public Administration Review, 2000–2009. *Public Administration Review*, 71(1), 19–33.
- Rainey, H. (1982). Reward Preferences among Public and Private Managers: In Search of the Service Ethic. *The American Review of Public Administration*, 16(4), 288–302.
- Rainey, H. (1983a). *Understanding and Managing Public Organizations*. John Wiley & Sons.
- Rainey, H. (1983b). Public Agencies and Private Firms Incentive Structures, Goals, and Individual Roles. *Administration & Society*, 15(2), 207–242.
- Rainey, H., Backoff, R., & Levine, C. (1976). Comparing Public and Private Organizations. *Public Administration Review*, 36(2), 233–244.

- Rainey, H., & Bozeman, B. (2000). Comparing Public and Private Organizations: Empirical Research and the Power of the A Priori. *Journal of Public Administration Research and Theory*, 10(2), 447–470.
- Rainey, H., Pandey, S., & Bozeman, B. (1995). Research Note: Public and Private Managers' Perceptions of Red Tape. *Public Administration Review*, 55(6), 567–574.
- Rainey, H., & Steinbauer, P. (1999). Galloping Elephants: Developing Elements of a Theory of Effective Government Organizations. *Journal of Public Administration Research and Theory*, 9(1), 1–32.
- Raut, T., Sahu, S., & Ganguly, S. (2008). Strategic Management Journal : a citations study. *Annals of Library and Information Studies*, 55(1), 69–75.
- Rodríguez Bolívar, M., Alcaide Muñoz, L., & López Hernández, A. (2010). Trends of e-Government research. Contextualization and research opportunities. *International Journal of Digital Accounting Research*, 10, 87–111.
- Rodríguez Bolívar, M., Alcaide Muñoz, L., & López Hernández, A. (2012). Studying E-Government: Research Methodologies, Data Compilation Techniques and Future Outlook.
- Roza, M. da, Machado, D., & Quintana, A. (2011). Análise bibliométrica da produção científica sobre contabilidade pública no encontro de administração pública e governança (EnAPG) e na revista de administração pública (RAP), no período 2004-2009. *ConTexto*, 11(20), 59–72.
- Savas, E. (2000). *Privatization and Public-Private Partnerships*. CQ Press.
- Soteriades, E., & Falagas, M. (2006). A bibliometric analysis in the fields of preventive medicine, occupational and environmental medicine, epidemiology, and public health. *BMC Public Health*, 6(1), 301.
- Terry, L. (1998). Administrative Leadership, Neo-Managerialism, and the Public Management Movement. *Public Administration Review*, 58(3), 194–200.
- Vogel, R. (2013). What Happened to the Public Organization? A Bibliometric Analysis of Public Administration and Organization Studies. *The American Review of Public Administration*.
- Vroom, V. (1964). *Work and motivation*. Wiley.
- Welch, E., Hinnant, C., & Moon, M. (2005). Linking Citizen Satisfaction with E-Government and Trust in Government. *Journal of Public Administration Research and Theory*, 15(3), 371–391.
- West, D. (2004). E-Government and the Transformation of Service Delivery and Citizen Attitudes. *Public Administration Review*, 64(1), 15–27.
- Wilson, J. (1989). *Bureaucracy: What Government Agencies Do and why They Do it*. Basic Books.
- Wittmer, D. (1991). Serving the People or Serving for Pay: Reward Preferences among Government, Hybrid Sector, and Business Managers. *Public Productivity & Management Review*, 14(4), 369–383. <http://doi.org/10.2307/3380953>
- Wright, B. E. (2001). Public-Sector Work Motivation: A Review of the Current Literature and a Revised Conceptual Model. *Journal of Public Administration Research and Theory*, 11(4), 559–586.
- Wright, B. E. (2004). The Role of Work Context in Work Motivation: A Public Sector Application of Goal and Social Cognitive Theories. *Journal of Public Administration Research and Theory*, 14(1), 59–78. <http://doi.org/10.1093/jopart/muh004>
- Wright, B. E. (2007). Public Service and Motivation: Does Mission Matter? *Public Administration Review*, 67(1), 54–64.

APPENDIX I

Factor	References	Contribution
<b>1) Public Sector Motivation</b>	Lewis & Frank (2002)	Studied demographic characteristics and job qualities that draw people to work in public organizations. Job security was most valuable, followed by high income and the opportunity to be useful to society.
	Rainey (1982)	Analyzed the perception of public and private organizations middle managers in work related-values and reward preferences.
	Houston (2000)	Compared the perception of job incentives between public and private employees. Public workers value more intrinsic rewards while private employees extrinsic rewards.
	Moynihan & Pandey (2007)	Tested the robustness of public service motivation theory (Perry, 2000). It had a positive relation with education level and professional organization membership.
	Gabris & Simo (1995)	Tested if there are different motives for employees of public and private sectors. The analysis showed no statistically significant differences.
	Wittmer (1991)	Tested the differences on work-related values and reward preferences among employees of different sectors (public, private, and hybrid).
	Wright (2007)	Integrated public service motivation literature within the bounds of goal theory. Work motivation increases if the public organization has a strong mission.
	Crewson (1997)	Tested propositions of public service motivation theory. The findings suggested that public and private employees have different reward motivations, which are general and stable.
	Perry (1996)	Created and tested a scale with Likert-type items to measure 6 conceptual dimensions of public service motivation.
<b>1) Public Sector Motivation (cont.)</b>	Perry & Porter (1982)	Compared 4 motivational techniques (monetary incentives, goal setting, job design, and participation) used in public and private agencies and concluded that future research should focus on performance measurability, goal clarity and job security.
	Perry & Wise (1990)	Reviewed theories for public service motivation, identifying 3 typologies of motives (rational, norm-based, and affective motives).
	Vroom (1964)	Presented Valence - Instrumentality - Expectancy Model to study employees' work motivation in private and public sectors.

Rainey et al. (1976)	Studied propositions about differences between public and private organizations and classified them in 3 categories: environmental factors, organization-environment transactions, and internal structures and processes.
Perry (1997)	Conducted a research to show public service motivation relationship using the scale presented by Perry (1996), which proved to be useful.
Rainey (1983a)	Assessed distinctions between public and private organizations in motivation and working attitudes, among others themes.
Rainey (1983b)	Compared perceptions of middle managers in public and private agencies about work aspects.
Rainey & Steinbauer (1999)	Presented elements that explain effectiveness in government institutions and serve to motivate their employees.
Perry (2000)	Developed a motivation theory for government and voluntary organizations.

<b>2) Decision-making and Management</b>	Chun & Rainey (2005)	Created a model to quantify goal ambiguity in government organizations, which is supposed to be vaguer than goals of private firms.
	Barnard (1938)	Provided a theory of cooperative behavior in organizations.
	Moynihan (2008)	Showed that reforms made in American state and federal governments to embrace performance management model did not accomplish what was expected.
	Wright (2004)	Tested the model presented by Wright (2001), which predicts that work context influence work motivation in public organizations.
	Bozeman (1987)	Assessed the difficulties to categorize an organization as public or private. For the author all organizations are in some way public because they are affected by economical authority.
	Downs (1967)	Developed a theory of decision-making in public institutions, based on the belief that personal interests motivate bureaucratic decisions.
	Rainey et al. (1995)	Compared public and private managers' perception of red tape to test hypotheses that explain whether and why public managers may create excessive rules and formalities.
	Perry & Rainey (1988)	Reviewed literature that compares public and private agencies, denoting the importance of the distinction.
<b>2) Decision-making and Management (cont.)</b>	Boyne (2002)	Discussed how public managers could apply New Public Management. Based on differences between public and private organizations, 13 hypothesis were formed on 4 dimensions: environment, goals, structures, and managerial values.
	Lindblom (1959)	Analyzed decision-making process of public administrators and allocation of responsibilities to determinate who should make what decision.
	Rainey & Bozeman (2000)	Discussed 20 years of previous research that compared public and private organizations.
<b>3) E-government</b>	Welch et al. (2005)	Proposed hypotheses about e-government considering citizens' use, satisfaction, and trust. Positive associations were found



		between: Web site use, e-government satisfaction, and Web site satisfaction; and e-government satisfaction and trust in government.
	Layne & Lee (2001)	Cataloged different development levels of e-government and proposed a model called “stages of growth” to accomplish the evolution towards a functional e-government.
	West (2004)	Studied if e-government influences citizens’ opinion and confidence in government and service delivery.
	Fountain (2001)	Recognized that benefits of e-government would only be achieved if rigid and bureaucratic administration change.
	Ho (2002)	Analyzed how local governments developed cities’ Web sites. The Web designs were oriented to improve customer service and emphasized on external collaboration and networking, rather than on technology.
<b>3) E-government (cont.)</b>	Moon (2002)	Claimed that institutional factors influence e-government development. City’s size and a manager-council government were positively associated with Web site development and its’ duration.
	Norris & Moon (2005)	Studied local e-government adoption, considering as variables: Web site sophistication, perceived impacts, and barriers on its adoption and sophistication.
<b>4) Management Theory</b>	Terry (1998)	Discussed neo-managerialism concepts that could be applied in public institutions, including issues of liberation and market-driven approaches.
	Savas (2000)	Presented a guide to privatization, discussing aspects such as service contract, franchises and vouchers use, government-owned businesses divest, infrastructure privatization through public-private partnerships, education reform, and welfare state privatization.
	Moore (1995)	Presented dilemmas faced by public managers to answer: what should citizens and their representatives expect or demand from public executives?
	Pollitt & Bouckaert (2004)	Compared changes in public administration in 12 nations of Europe, Oceania and North America.
	Wilson (1989)	Studied the behavior of bureaucrats, focusing on their daily tasks, which were considered more challenging than the ones of private organizations because of the excess of regulation in public agencies.

	Barzelay (2001)	Presented New Public Management approach by analyzing how nations in the United Kingdom, Australia and New Zealand had managed it.
<b>4) Management Theory (cont.)</b>	Pfeffer & Salancik (1978)	Assessed environment dependence of organizations, discussing 3 main topics: social context relevance, opportunities, and importance of power to understand inter and intra-organizational behavior.
	Hood (1991)	Studied New Public Management concepts, components, origins, acceptance, persuasions, and subsequent critiques.
	Cyert & March (1963)	Raised questions to assumptions underlying that firms seek to maximize profits with perfect knowledge, because conflictive individual goals coexist in a firm and decisions are made based on available information.
	DiMaggio & Powell (1983)	Proposed a theory of institutional isomorphism and organization homogenization.
	Gore (1993)	Assessed the results of Clinton Administration proposal of reforms on American federal government.
	Niskanen (1971)	Discussed that bureaucrats motivated by their own interest try to maximize the budget of the agencies they work in.
	Meier & O'Toole Jr. (2001)	Tested the theory of government programs management in a network context (O'Toole Jr. & Meier, 1999). A model to measure it was created.
	Osborne & Gaebler (1992)	Assessed the application of private management standards in Public Administration.
	O'Toole Jr. (1997)	Believed that public managers need to incorporate network concepts in their daily tasks because of the complex patterns of government operations.