

Research Trends in Japanese Public Administration: Statistical Content Analyses of Article Titles in Public Administration Review Quarterly (1978–2019)

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Abstract

Japanese research on public administration is now increasingly being published in English, however, it is difficult to understand the context regarding research position and practical implications in Japan simply by reading these papers in isolation. To better understand the recent Japanese administrative research on individual policy areas being published in English, it is necessary to first understand the previous accumulated Japanese administrative research. This paper quantitatively explains research trends in postwar administrative studies in Japan by statistically analyzing nearly 40 years of article titles from *Public Administration Review Quarterly*, from its first (1978) to 165th issue (2019). Published quarterly by the Institute of Administrative Management, which is tied to the Ministry of Internal Affairs and Communications, *Public Administration Review Quarterly* is a renowned public administration journal in Japan. Co-occurrence network and correspondence analyses revealed changes in research interests. There was substantially more research on administrative reforms through the postwar *Showa* and *Heisei* eras. The configuration figures of correspondence analysis indicate that the first dimension concerns administrative reforms, the second, historical events/administrative systems, and the third, evaluations and *Kaizen*. Co-occurrence network analysis showed that studies during the *Showa* era (1978–1988) could be partly characterized by two extracted compound words: the *United States* and the *United Kingdom*. In other words, public administration in Japan in this period was strongly influenced by Western public administration. *Japan* became a feature of studies of public administration during the *Heisei* era (1989–2018). These features are consistent with those found in previous quantitative studies.

1. Introduction

With the rise of online journals and mega-journals based on the premise of open access, an increasing number of papers are being published, predominantly in English, which is the main language used in the academic world. Previously published research in native languages is now being written in English and published in English journals, partly because of the development of AI-based machine translation technology. Since 2019, COVID-19, now a global pandemic, has generated a large body of academic literature on the disease and how to respond to it. This includes the status of infections in countries worldwide, success or failure of policies to address the same, and effective treatment strategies for patients. Much of the literature on COVID-19 has also been subjected to bibliometric analysis, a frequent practice in other fields since the 1990s (Akintunde et al. 2021; Tantengco 2021). Drago et al. (2021) bibliometrically analyzed 285 studies published in 2019–2020 on the development of telemedicine and its technology, which has expanded with the spread of COVID-19. Relatedly, Ranjbari et al. (2022) conducted a bibliometric and text-mining analyses of studies on waste disposal issues related to the spread of COVID-19. Sigala (2021) performed a bibliometric analysis of the much-published literature on the impact of COVID-19 on the travel industry. In the field of public administration and management of public organizations, Di Vaio et al. (2022) is a recent example. They analyzed 161 articles published from 2017 to 2021 on how data intelligence and analytics can improve the effectiveness of public sector decision making. Regarding studies that have bibliometrically analyzed articles published only in specific

journals for certain periods of time, Liu et al. (2022) conducted a bibliometric analysis of articles published in *Journal of Dental Sciences* from 2009 to 2020. Wei and Lei (2018) focused on *New England Journal of Medicine* to examine the difference between normalized citations of Harvard versus non-Harvard based articles, and found it to be small. Chaudhry et al. (2021) analyzed bibliographic data from 12 years of 1,264 articles in *Journal of Maxillofacial Oral Surgery* to measure levels of evidence for each reference and discuss changes in their percentages over time. In the field of pedagogy, Marchand Martella et al. (2021) conducted a bibliometric analysis of 1,671 references from the Web of Science Core Collection published between 2014–2019 on active learning, and analyzed the characteristics of the journal's field, including the distribution of countries and regions. Thus, an increasing number of studies are analyzing changes in research trends and characteristics over a specific period of time by conducting a bibliometric analysis or systematic review of the growing literature in each field over a certain period of time.

Research on public administration in Japan is increasingly being published in English, particularly that conducted by young researchers. For example, Kaihara (2008) discussed the Koizumi Reforms of Japan's political and economic system in English, and their characteristics and significance. In addition, Lee and Kim (2019) examined the differences in the use of welfare personnel other than civil servants, such as civic advocacy groups, in the context of welfare system reform in Japan and Korea from an international comparative perspective. Rothacher (2010) provided an overview of the reflation policies adopted during the so-called lost decade (1992–2002), as well as their impact and characteristics from an international perspective.

However, to catch up with the West on nation development, public administration and other academic studies have been developed mainly in Japanese, the native language of Japan since the *Meiji* era (Cohen [2014] discussed in English the political institutional changes, their background, and the process of change from the *Edo* to the *Meiji* period). Thus, the research published in Japanese has accumulated. Japanese research on public administration is now increasingly being published in English, however, it is difficult to understand the context in terms of research position and practical implications in Japan simply by reading these papers in isolation. Although few in number, books have been written by Japanese public administration scholars that discuss Japanese public administration in English, for instance, Tsuji (1984), a leading public administration scholar and professor at the University of Tokyo, provided a detailed overview and history of Japanese public administration in English. More recently, Doi and Ibori (2009), fiscal academics, provided an overview of the Japanese public sector. While there are many Japanese scholars who have presented their research on individual administrations in English, such as Sugimura (2020), who presented his recent research on port administration in English, only a limited number of scholars have presented the research trends of Japanese administration as a whole or historical changes over a certain period of time in English. A notable exception is Hino and Chronopoulos (2021) whose study on crime prevention policies based on the broken windows theory implemented in Adachi-ku, Tokyo was published in an international journal in English. Thus, while the number of studies published in English on individual policy areas is increasing in line with the internationalization of research in Japan, there are no studies, with the exception of the one by the author, that discuss recent

major trends in Japanese public administration research using quantitative methods such as bibliometric analysis.

Therefore, this study analyzed the titles of articles in *Public Administration Review Quarterly* of Japan from its first (1978) to 165th issue (2019) to quantitatively assess the research trends of postwar public administration in Japan. Published quarterly by the Institute of Administrative Management in Japan, this journal is one of the most renowned in the field of Japanese public administration. The institution is closely tied to the Ministry of Internal Affairs and Communications. For another leading journal, *the Annals of the Japanese Society for Public Administration*, a similar bibliometric analysis has already been performed and published in Japanese (Moteki 2020). The term “42 years” comprises the postwar *Showa* and *Heisei* eras. The *Showa* era spans from 1926 to 1989 in the Western calendar. Since Japan’s defeat in World War II (WWII) in 1945 during the *Showa* era, the demilitarization and democratization of Japan has progressed, laying the foundation for the current Japanese political system. Public administration studies in Japan after WWII have been strongly influenced by public administration in the United States. Initially, the focus was on the introduction of American theories. However, as a result of the accumulated research in Japan, there has been an increase in studies that seek solutions to administrative issues in Japan.

This study uses the text mining technique, a method enabling the quantitative analysis of qualitative information. One advantage of this type of quantitative method is that other researchers can perform additional tests and reproduction studies. Ni et al. (2017) used the bibliometric method to examine research trends in American studies on public administration using PDF files (3,934 articles) of *Public Administration Review* from 1940 through 2013. The analysis focused on the characteristics of authorship, including the most productive authors, authors’ institutions, gender composition, and the author’s profession as a scholar or practitioner. In addition to authorship, word analysis was conducted to identify the top 50 most-frequent title words to explain differences between the periods 1940–1964, 1965–1989, and 1990–2013. The article referred to previous quantitative research using bibliometric data of *Public Administrative Review* (p. 505).

1.1 Qualitative Analysis of Research Trends in Public Administration in Japan

Public administration scholars at the University of Tokyo and Kyoto University have been very influential in the field. This is because Japan’s modern administrative science started in 1921, before WWII, when university departments in public administration were established at Tokyo Imperial University and Kyoto Imperial University (the predecessors of the abovementioned two universities; Nishio 2001, p. 43). One of the most popular textbooks in Japanese public administration was published by a professor at the University of Tokyo who considered institutions, administration, and policies important aspects of public administration in Japan (Nishio 2001, pp. 50–51). Professors in Japanese universities also consider these three aspects important in their lectures on public administration. The textbook is also widely used by college students preparing for civil service examinations at the national and local levels.

In contrast to Nishio (2001), who considered administration as one perspective, Muramatsu (2001; who wrote another influential textbook as a professor at Kyoto University) believed that public administration belonged to the political sciences (the subtitle of the textbook in Japanese is *Political Analysis of Modern Public Administration*). Muramatsu (1983) formulated a four-quadrant matrix of studies of public administration in Japan, which includes foreign countries, Japan, theories, and practices (figure on p. 49). He highlighted a lack of research in two quadrants: Japanese theories and practice in foreign countries. According to him, public administration in Japan at that time focused on foreign theories and Japanese practice. Moreover, he argued that studies on public administration in Japan needed to deepen their research on practice in foreign countries and create theories based on the Japanese context.

2. Related Studies

For content analysis, an accumulation of research dates back to Krippendorff (1980). Regarding studies on research trends of public administration, Wald (1973) attempted to quantitatively assess the research trends of public administration in the United States using the Delphi method. Content analysis methods are often called bibliometric analyses and are an important part of research evaluation methods. As explained in the introduction, Ni et al. (2017) conducted a 75-year bibliometric analysis and introduced Gooden (2015), Groeneveld et al. (2015), Jones and Doss (1977), and Perry and Kraemer (1986). Gooden (2015) found that the percentage of articles on social equity published in *Public Administration Review* fell below 5% from 1940 to 2013, and those published focus on personnel and public policy areas. An example of a recent bibliometric analysis is the one conducted by Agrifoglio et al. (2021) based on a systematic literature review of knowledge management in public organizations using the Scopus and Web of Science databases. Cuccurullo et al. (2016) conducted a bibliometric analysis of research trends on performance management in both business administration and public administration using 25 years of data.

For research using text mining techniques in social sciences, Amado et al. (2018) applied the text mining approach to management studies. White et al. (2016) also conducted a management study using the text mining approach. Krallinger et al. (2008) offer an example in the context of genome biology. Similarly, Kwon (2022) examined the research debate on transparency in the social sciences through bibliometric analysis. He used historiography and co-occurrence analyses to analyze and visually clarify the changing academic interest in transparency and relationships between themes. Co-occurrence analysis was also used by the author in this study. Furthermore, Hung (2012) used refereed journal articles and proceedings obtained from the Science Citation Index/Social Science Citation Index from 2000 to 2008. In the field of public administration, however, the author did not find any literature using this technique in English journals. The author also examined articles from another major academic journal in Japanese public administration (*The Annals of the Japanese Society for Public Administration*) using the text mining method (Moteki 2020).

In terms of Japanese academics, Saito (2011) used text mining methods to survey studies in the social and natural sciences, and Sakushima et al. (2012) employed it for titles published in the academic

journal *Clinical Neurology*, obtaining text data from the CiNii database. Their research included a correspondence analysis. Although the research area differs from that in this article, this study refers to the method of Sakushima et al. (2012). The only study that has conducted a bibliometric analysis of research trends in Japanese public administration, including text mining methods, is by the author (Moteki [2020]) in Japanese, which analyzed articles from *the Annals of the Japanese Society for Public Administration*; there are no studies in either Japanese or English that have analyzed *Public Administration Review Quarterly*, the subject of this study.

In the next and subsequent sections of this study, a bibliometric analysis of the target journal, *Public Administration Review Quarterly*, will be conducted. First, Section 3 (Materials and Methods) details how to obtain and process text data for bibliometric or content analysis. This is so that third-party researchers can validate and perform additional research on the same subject after the publication of this paper. Next, Section 4 (Results) presents the results of bibliometric analysis, specifically, co-occurrence network and correspondence analyses of extracted words, which are commonly performed as text mining. Section 5 (Discussion) summarizes the results of the content analysis of the research trends in Japanese public administration and discusses them in the context of previously published qualitative studies. Finally, Section 6 (Conclusion) concludes the study, discusses its limitations, and suggests future research directions.

3. Materials And Methods

3.1 Material Collection

To grasp the postwar research trends in public administration in Japan, the titles of *Public Administration Review Quarterly* were gathered as target data. First, the keyword *Kikan Gyosei Kanri Kenkyu* (the Japanese title) was used to search the CiNii (Citation Information by the National Institute of Informatics [NII]) Articles database organized by the NII. Second, the author chose to display the search results in a Tab Separated Values (TSV) format and saved the results (September 11, 2019, implementation). Finally, the author converted the TSV files into a Microsoft Excel spreadsheet. As issues 1–4 were not included in the CiNii database, the author used the printed paper publications and entered the data into the Excel dataset. To enable reproduction studies, the author conducted a machine translation from Japanese to English using Google Translate. The author read through the results and confirmed the appropriateness of the translation. Thereafter, the titles of the articles were treated in English.

For the dataset file, the author made the following modifications: (1) Titles (cases) indicating “book reviews” were deleted. (2) Titles related to special articles on academic association conferences were excluded. (3) Non-papers such as lectures and forewords were deleted. Furthermore, issues 1–4 were added, as mentioned, to the original 1,356 cases. As a result of the abovementioned modifications, 842 titles of papers remained in the dataset.

To examine this text data, this study used the KH Coder (version 3.Alpha.17k) developed by Dr. Higuchi Koichi of Ritsumeikan University. This free-to-use software was developed via a Grant-in-Aid for Scientific Research of the Ministry of Education, Culture, Sports, Science and Technology, Japan (Higuchi 2016). For a morphological analysis of the sentences, the author used Stanford POS Tagger.

Processing compound words for technical terms by using the program alone may be insufficient. Therefore, the author used all the words listed in the index compiled by Nishio (2001) in the standard textbook for public administration in Japan. As a result, the number of compound words based on Nishio's (2001) index became 815. Following this process, the author checked the extracted words. Important concepts that were not extracted, such as "governance" and "the United Kingdom," were added manually to the list of compound words.

4. Results

To examine the relationships between the extracted words, the author performed correspondence and co-occurrence network analyses. Using 10-year time periods as external variables in deriving relationships between the extracted words led to an understanding of the transition and characteristics of each period in studies on public administration.

4.1 Co-occurrence Network Analysis

Co-occurrence network analysis was performed to understand how the focus changed from the first period (the *Showa* era, 1978–1988) to the second period (the *Heisei* era, 1989–2018). In Japanese local governments, public officers use the Japanese periods (*Wareki*), which are named according to the reign of each emperor (*Tennou*). To compare the differences between the first decade and those that follow, the author used these Japanese periods. In the co-occurrence network analysis shown in Figure 1, the Japanese time periods *Showa* and *Heisei* were selected as external variables to draw the figures. To filter up to 60 edges (nodes), the Jaccard index was used as the selection criteria (for a mathematical explanation of the Jaccard Index, see McCormick et al. [1992]).

Regarding words closely connected to the *Showa* era (on the right side of the figure), we see examples in article titles from the United States and the United Kingdom. Also evident are some of the specific themes of these papers that introduce each country's administrative practices and institutions. In titles from the United Kingdom, we found mentions of the civil service system, political appointment system of officials, and industrial policy of the country. In titles from the United States, we found mentions of the parliamentary system, Office of Management and Budget, and approval process for new medications. After its defeat in WWII, and especially as a result of the American occupation, Japan witnessed an evolution of the social sciences, taking the United States and the United Kingdom as exemplars.

In contrast, Japan is located on the left side of the figure (related with the *Heisei* era). Here, *Japan* emerged as a popular topic in administrative research in the *Heisei* era because the Great East Japan Earthquake of 2011 had a significant impact on the government, and the journal analyzed in this study featured policies and systems related to the earthquake and the crisis it caused. This indicates that research trends shifted from studies involving cases of foreign countries to those on domestic cases and solutions, partly because of the economic, human, and environmental problems caused by the earthquake. In addition, we see *Governance*, *Local Government*, and *Policy Evaluation* on the left side of the figure (the *Heisei* era). These words indicate research features regarding the respective time periods. At the center of the figure, we see the extracted compound words such as *reform*, *administrative reform*, *management*, *theory*, and *administration*. These are common words across both time periods.

Fig 1 Co-occurrence Network Analysis of Extracted Words (the *Showa* and *Heisei* Time Periods)

[Insert Figure 1 here]

4.2 Correspondence Analysis

A correspondence analysis, a typical technique for graphically displaying category data, was also conducted. To grasp the changes and periodical characteristics of research trends in public administration in Japan, the author used a 10-year time period as an external variable, creating 5 time periods.

Figure 2 is the result of the correspondence analysis. The extracted words located near the origin where two dimensions intersect do not have distinctive features. Dimension 1 is an axis from left to right. We see the word *Rincho* at the far left of the configuration map. *Rincho* represents the abbreviations of government commissions for the administrative reforms from 1961–1964 (the *Ikeda* Administration) and 1981–1983 (the *Suzuki* and *Nakasone* Administrations). On the far right of the figure, we see the *Great East Japan Earthquake* and *Governance*. These extracted words differ from those related to the administrative reforms. Here, the author interpreted dimension 1 as an axis of administrative reforms.

Regarding dimension 2, we see *Information disclosure*, *Gyokakushin*, and *Policy Evaluation* on the lower part of the figure. The Act on Access to Information Held by Administrative Organs enacted in 1999 established a mechanism for government agencies to disclose information. *Gyokakushin* (an abbreviation of *Rinji Gyosei Kaikaku Suishin Shingikai* [Extraordinary Administrative Reform Promotion Council]) started in July 1983 during the era of the *Nakasone* Administration. The Government Policy Evaluations Act (Act No. 86 of June 29, 2001) introduced policy evaluations at the national government level. In the upper part of the figure, we see *Great East Japan Earthquake*, *History*, and *Development*. Considering the foregoing, the author interpreted dimension 2 as an axis of historical events/administrative systems.

Figure 3 is a configuration map of dimensions 2 and 3. We see *Gyokakushin and Case Study* at the top of the figure. In the lower part of the figure, we see *Policy Evaluation and improvement (Kaizen)*. Based on these extracted words, the author interpreted dimension 3 as an axis of evaluations and *Kaizen*.

Fig 2 Correspondence Analysis (the First and Second Dimensions)

[Insert Figure 2 here]

Fig 3 Correspondence Analysis (the Second and Third Dimensions)

[Insert Figure 3 here]

5. Discussion

In this section, the results of text mining are discussed in contrast to the factors pointed out in Nishio (2001) and Muramatsu (1983). Correspondence analysis showed three dimensions: administrative reforms, historical events/administrative systems, and evaluations and *Kaizen*. The first dimension implies that problems related with administrative matters, which Nishio (2001) highlighted as an important perspective, are actually features of public administration in Japan that appeared in *Public Administration Review Quarterly* of Japan. Muramatsu (1983) emphasized the need for studying practices in foreign countries and creating theories based on the Japanese reality. Co-occurrence network analysis, which focused on differences between the *Showa* and *Heisei* eras, revealed that studies during the *Showa* era (1978–1988) could be partly characterized by the two extracted compound words: the United States and the United Kingdom. *Japan* became a feature of studies on public administration during the *Heisei* era (1989–2018). This result indicates that Japanese studies on public administration shifted from importing theories from the United States and the United Kingdom to conducting research on practices in Japan.

Concerning dimension 2 of the configuration map (Figure 2), at the top of the figure, we see the *Great East Japan Earthquake*. The earthquake occurred in 2011, and greatly influenced the theories and practice of public administration in Japan. Historical events such as the Great East Japan Earthquake have significantly impacted research in this field and the movement toward administrative reforms, modeled after corporate management, and have been a major pillar of these studies in Japan.

6. Conclusion

This study quantitatively examined research trends in postwar administrative studies in Japan using statistical analyses of nearly 40 years' worth of article titles from *Public Administration Review Quarterly*, from its first (1978) to 165th issue (2019). The two most prominent Japanese public administration journals are *the Annals of the Japanese Society for Public Administration* and *Public Administration Review Quarterly*; the former has been analyzed in Moteki (2020) and the latter, in the current study. The former is a journal published by an academic society, while the latter is a research journal for

practitioners published by an organization affiliated with the Ministry of Internal Affairs and Communications. After implementing a morphological analysis using Stanford POS Tagger, co-occurrence network and correspondence analyses were conducted, revealing changes in research interests over time. Specifically, there was substantially more research conducted on administrative reforms through the *Showa* and *Heisei* eras, spanning 42 years. This feature is consistent with Administration, one of the three perspectives of public administration in Japan that Nishio (2001) pointed out. Specifically, the first dimension of correspondence analysis implies that problems related with administrative matters, which Nishio (2001) highlighted as an important perspective, are actually features of public administration in Japan that appeared in the analysis of this study. In correspondence analysis, both the first and second dimensions and the second and third dimensions were selected as axes of configuration figures describing relationships between extracted words. The following interpretations can be derived from each configuration figure: The first dimension concerns administrative reforms, the second, historical events/administrative systems, and the third, evaluations and *Kaizen*. Policy evaluations are an important stage of policy processes (Nishio [2001] considered policies an important perspective). The introduction of management methods from the private sector, such as *Kaizen*, into the Japanese government is also a major feature. These methods of improving organizational management are further related to Administration, one of the three public administration perspectives identified by Nishio (2001).

The results of co-occurrence network analysis visualized differences across research trends between the *Showa* and *Heisei* eras. Traditional Japanese studies on public administration focused on introducing foreign theories from the United States and the United Kingdom to actual Japanese policies. The extracted word *Japan* in the co-occurrence network figure implies a research shift of these Japanese studies of public administration to create their own administrative theories. We can see features words *Governance*, *Local Government*, and *Policy Evaluation* on the left side of the figure (the *Heisei* era). These words indicate rising studies in the *Heisei* era. We can see the extracted compound words such as *reform*, *administrative reform*, *management*, *theory*, and *administration* at the center of the figure, meaning that these words are common features across both time periods.

Based on the above, these features show that the major pillars of Japanese postwar administrative studies from 1978 to 2019 are consistent with the qualitative research of Nishio (2001) and Muramatsu (1983). Previous qualitative research relied on the analysts' experience and perceptions and can be comprehensively re-examined in light of the findings of this study. Nishio (2001) considered institutions, administration, and policies important aspects of public administration in Japan, and these are the three dimensions of the correspondence analysis of this study. The qualitative analysis herein was based on the researcher's experience, but validated by a quantitative analysis of the data, strengthening this study's contribution to the research field. Muramatsu's (1983) emphasis on the need for theories based on Japanese practices is demonstrated in the co-occurrence network analysis in this study, which focused on the differences between the *Showa* and *Heisei* eras. The changes in public administration in Japan, which Muramatsu (1983) pointed out as necessary, have been quantitatively confirmed by the empirical evidence of the text mining method of changes in the frequency of the use of the terms "United States,"

“United Kingdom,” and “Japan.” Moteki (2020) analyzed the titles of another journal on public administration in Japan. In this study published in Japanese, the three dimensions of the correspondence analysis were time, evaluation and reform, and policy process. While similar, the results of the two studies differ slightly. The variation stems from the difference in the journals’ respective target readers and characteristics. The author will examine these differences further in future research.

6.1 *Limitations of this Study and Future Agendas*

This study suffers from the following limitations. First, the period under analysis is limited to post WWII. Since the *Meiji* era (1868–1912), Japan adopted from the West not only natural sciences but also social sciences, including public administration, to catch up with Western countries in terms of economic development and national power buildup, and continued to develop research and educational infrastructure at Japanese national universities. In other words, courses in public administration were established at Tokyo Imperial University (now the University of Tokyo) and other universities, and education and research in public administration were promoted, believing they would contribute to the development of the nation’s governance structure; the subject also became widely studied by students aiming to become national civil servants. The core content of public administration as a subject did not change much before and after WWII, and in order to create a comprehensive picture of research trends and changes in Japanese public administration, it is necessary to also take into account trends in public administration research since the *Meiji* era. Further, to understand research trends taking into account the *Meiji*, *Taisho*, and *Showa* periods as well, it is necessary to target data from books. Since the CiNii Books database contains basically all books held in university libraries, I aim to conduct a bibliometric analysis of research trends for books using this database in the future.

Another limitation of this paper is that within bibliometric analysis, the methodology is limited to text mining analysis of literature titles. Some bibliometric studies in the United States of *Public Administration Review* such as Ni et al. (2017) applied an analysis of authorship attributes. As already mentioned in this paper, the University of Tokyo was the overwhelming center of public administration studies in Japan in the beginning, and in the postwar period, the University of Tokyo and Kyoto University, located in the east and west of Japan, respectively, have remained the centers of research. Recently, diversity has become a requirement in the world of research. In the future, the author would like to expand on the research in this paper and introduce a wider range of analytical targets for bibliometric analysis, that is, factors such as authors’ gender, university of origin, work experience, mono-authorship/co-authorship, and availability of external funding, into the analytical targets, aiming for a more comprehensive quantitative analysis.

Declarations

Biographical Note

Yasutoshi Moteki (PhD) is an associate professor of public administration at Hiroshima University's Faculty of Law and the School of Humanities and Social Sciences. His current research interest lies in public management, budgetary process, and policy evaluations. He has also been conducting empirical research on customer or citizen satisfaction in the field of public administration. He received his Bachelor of Law, Master of Laws, and PhD degree from Kyushu University. His work has appeared in prominent scholarly journals both in Japan and abroad. He served on the Board of Directors of the Nippon Urban Management and Local Government Research Association from 2015 to 2018.

Declaration of Conflicting Interests

The author declares no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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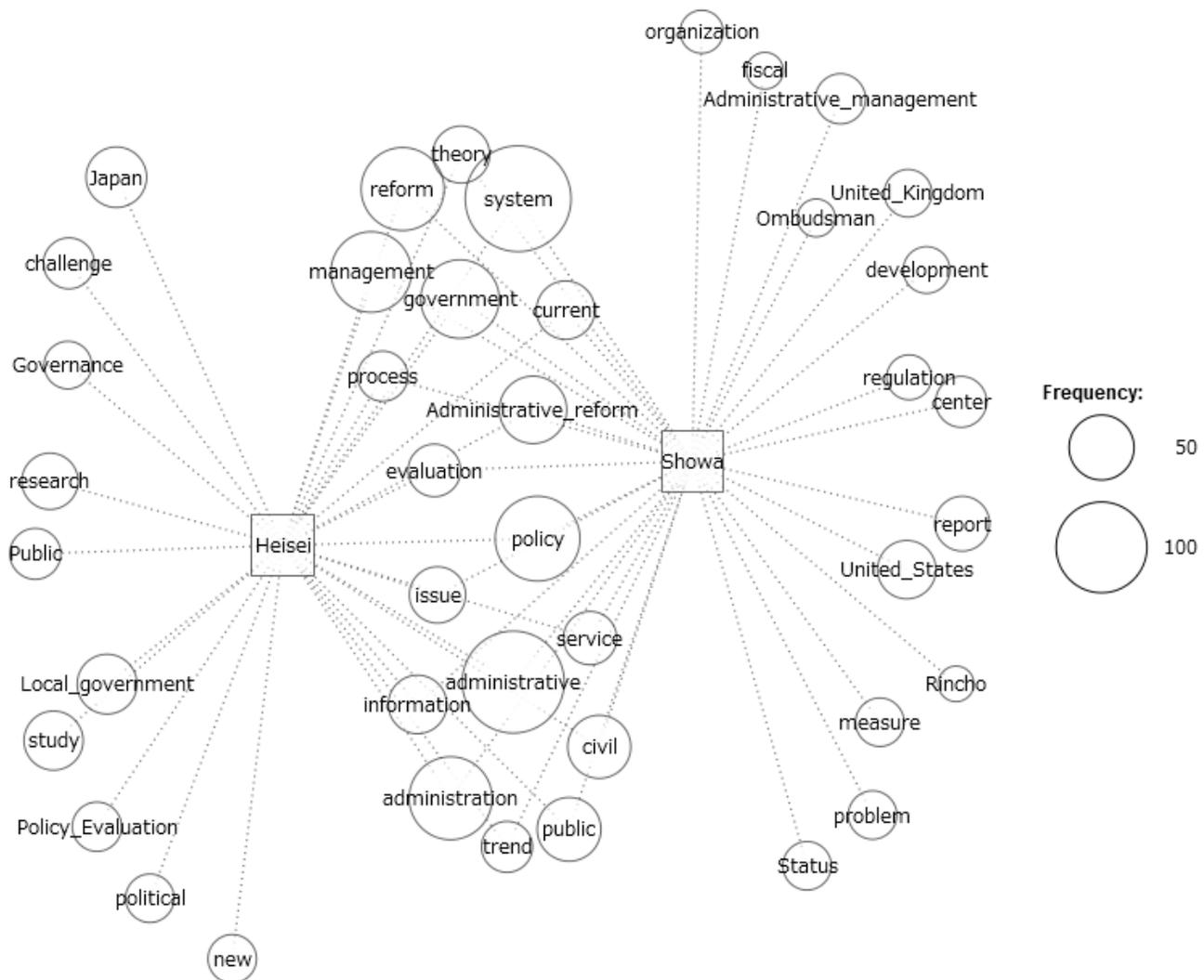
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Figures



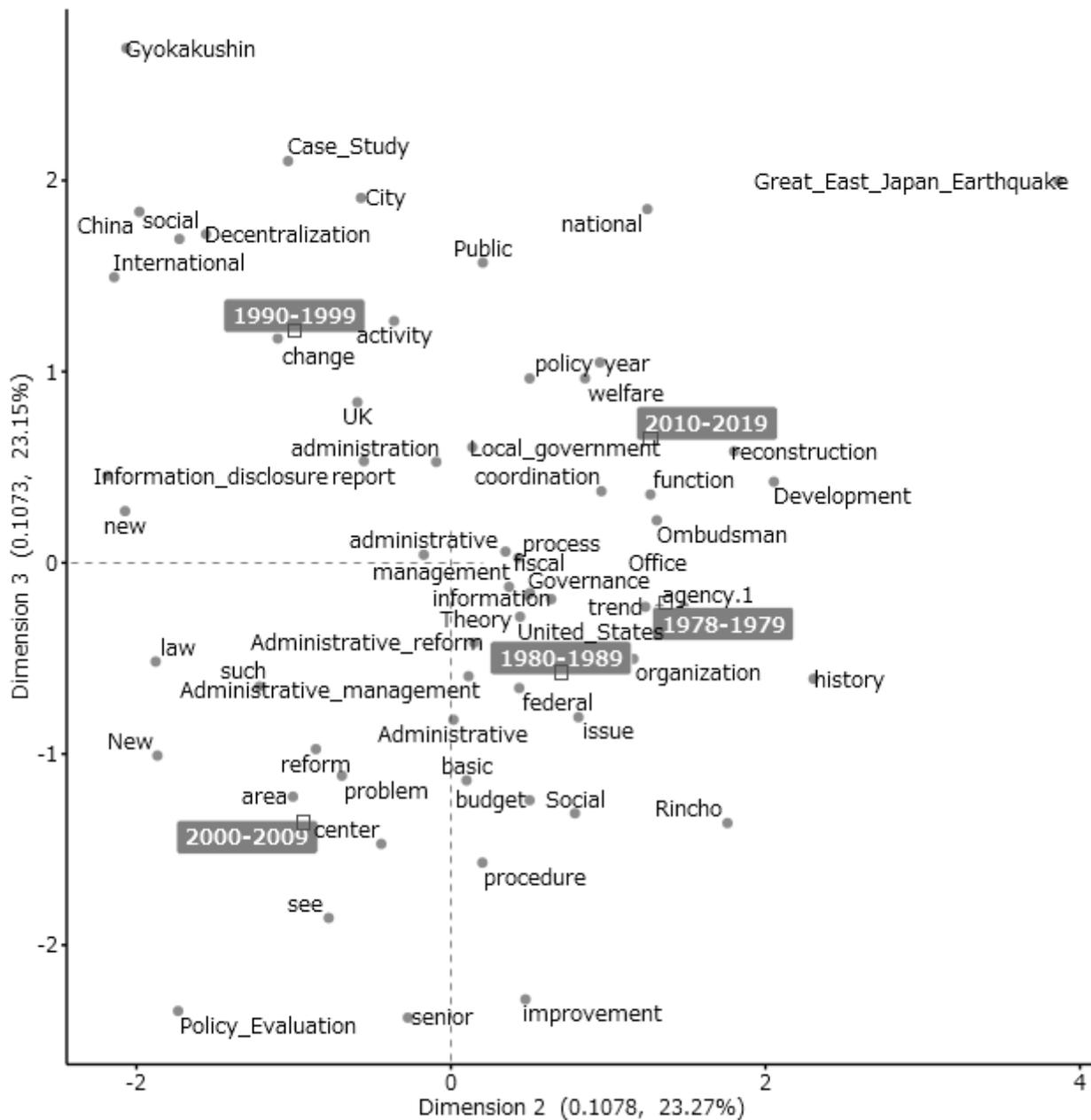


Figure 3

Correspondence Analysis (the Second and Third Dimensions)