

## The Development of Contingency Theory in Public Sector: An Overview

Endang Hadiyanti<sup>1</sup>, Lina Miftahul Jannah<sup>2</sup>, Achmad Lutfi<sup>3</sup>

Universitas Indonesia

\*Email: [endang.hadiyanti@ui.ac.id](mailto:endang.hadiyanti@ui.ac.id), [miftahul@ui.ac.id](mailto:miftahul@ui.ac.id), [achmad.lutfi@ui.ac.id](mailto:achmad.lutfi@ui.ac.id)

ARTICLE INFO	ABSTRACT
<p><b>Keywords:</b> contingency theory, government, public</p>	<p><i>The purpose of this study is to provide an overview of contingency theory research, particularly in the public sector. The inductive approach of a series of studies with the goal of theoretical development in the field of investigation served as the foundation for the research methodology and design. We focus on the publication in journals indexed on the Scopus database. A quantitative bibliometric analysis is carried out. 159 articles on the topic were located. We also identified the authors, journals, nations/regions, and the number of citations that contributed most to the growth of the investigation in this research topic by encouraging the analysis of strict bibliometric tools. To better understand the evaluation of the research topic, we use the VOSviewer software. As a result, despite a very slow start in 1979, this field of study has significantly expanded in recent years. There was a total of 13 documents published in 2019 and 2022, and so far in 2024, 9 documents have been published. With 44 documents published, the United States is the country or territory that has conducted most of this research; Indonesia is in sixth place with 9 documents.</i></p>

### INTRODUCTION

The research on the public sector that has used a contingency theory as a perspective or framework is summarized in this paper. The contingency approach arises from the basic assumptions of the universalistic approach which states that a control system can be applied to any company characteristics and in any environmental conditions. The gap between theory and actual practice is filled using the contingency approach. According to contingency theory, there are no universal answers to management problems that can be taken directly from a theoretical model. This theory places a strong emphasis on the ideas that there is a "middle ground," there is no "best way," and every situation merits independent analysis (Egginton, 2010).

Contingency theory is built to be a tool to improve the reliability in reporting, operation effectiveness and efficiency, and compliance with the applicable laws and regulations. According to this theory, the task's characteristics as well as its environment will determine how best to structure it (Leeman et al., 2019). Within the field of organisational studies, contingency theories have emerged as a response to areas where models are not universally applicable due to environmental and other factors.

(Ibrahimi & Naym, 2019) consider that the choice of performance measures is influenced by a variety of contextual factors, which are adequately explained by contingency theory. The choice of this study is justified by the focus of the majority of research in this area on the development and application of the system in public administrations.

Contingency theory's central idea is that a framework of situational variables, which are external or internal factors that can affect organisational management and performance, can be used to measure the overall performance of an organisational system, such as a post-disaster community (Arneson et al., 2017). According to this definition, an organisation gets its results by matching its traits to scenarios that correspond to its actual circumstances. In the actual situation, organisations aim to boost performance by enhancing fit and alignment with organizationally defined contingencies factors and, consequently, the shifting external environment (Shah et al., 2022)

The contingency theory seeks to collaborate with other management theories, enhancing them with its insights into the complexities of tasks, structure, people, technology, and the environment. In order to mobilise efforts that will strengthen the organisation in the face of opportunities or threats, it also focuses on the main component of its structure, the organisations in the context of the environment (Ferreira & Pedro Filho, 2013). Despite criticism for the way they presented a deterministic, historical perspective on organizations that offers scant insights into their mediating processes (Ibrahimi & Naym, 2019), the contingent approach has given insights into how various control system configurations and applications have led to a variety of different outcomes (Otley, 2016). It provides a helpful framework for distinguishing between contextual elements that are internal and external and have an impact on the use and choice of performance measures (Ibrahimi & Naym, 2019).

In the business area, Stonebraker & Afifi (2004) believed that to address long-, mid-, and short-term strategies and tactics across a variety of different business situations, a contingency model is required. (Najera Ruiz & Collazzo, 2021) become the first who confirm the adoption of accounting systems in microbusinesses in developing nations is explained by contingency theory. (Jansen, 2003) stated that according to contingency theory, 'institutional micro-politics' and 'governmental macro-politics' intricately interact in transitional contexts, explaining merger outcomes as a result.

Contingency theory is used in recent public personnel management research to explain how public organizations use public personnel management programmers to respond to opportunities and challenges in the environment (Kwon & Jeon, 2017). (Mnif & Gafsi, 2020) is the first to empirically examine the variables influencing the level of disclosure under accrual-based IPSAS by central government entities in a cross-country analysis, based on the contingency theory. (Nielsen, 2016) said that according to contingency theory, strategy influences organisational structure, and governments' entrepreneurship orientation is one such strategy. By highlighting similarities and differences in the international development of contingent local government public services, (Mafrolla, 2018) contributes to the conceptual analysis of public services. Contingency theory has become a lens for examining how public sector initiatives to enhance risk mitigation and the design of the control system relate in local government (Nuswantara & Maulidi, 2017). It is clear that this approach can be applied not only in the private sector but also in the public sector, government area, and in public policy.

Back to the very first time, Lawrence and Lorsch presented the concept of contingency theory in 1967. It develops all the time. And to codify which types of organizational structures were most suitable for particular situations, it heavily drew on the contingency theory of organizational structure that had been developed over the preceding 20 years (Otley, 2016).

We found that the use of contingency theory as a conceptual framework in local government for the first time conducted by Danziger in 1979. It is proven that differences in the productivity gains from computers across governments are mostly related to the type of user-technician interface and are also somewhat related to political circumstances (Danziger, 1979). Besides, The PPIP Model (Policy-Program-Implementation Process), which can be used as a conceptual framework for future research into contingent theories of policy implementation, is presented by Alexander (1985). A wide range of alternative versions and conceptualisations of the policy implementation process can also be developed using the PPIP Model, free from the restrictive constraints that come with using a general or universal theory.

Furthermore, the recent study by (Couckuyt et al., 2023), (Feitosa Jorge et al., 2022), and (McGrandle, 2017) noticed an important area of discussion about how to distinguish between internal and external contextual factors in contingency theory. According to the contingency theory, whether a factor is a contingency of an organization depends on whether better performance results from aligning the structure (or a characteristic of the structure) and the contingency. It is necessary to show that the fit proposed by the theory is empirically valid, i.e., that fit affects performance, to prove that a cause is a contingency (Al Jahwari & Budhwar, 2021; Haynes & Giblin, 2014; Loska & Higa, 2020).

It seems like there are still much spaces to develop the contingency theory as a theory, framework, view, or perspective. This stimulates the author's curiosity about reviewing any studies on contingency theory conducted in the public domain. So, the objective of this paper is to give an overview of the development of contingency theory in the public sector only.

The remainder of this paper is structured as follows: First, the definition of contingency theory is described. Second, we give an overview of the methodological approach of the study. Third, the findings of the systematic literature analysis are presented. Finally, the study concludes by providing directions for further research.

**METHOD**

We conducted the research by using literature review that consist of three steps. The steps are: 1) planning the review, 2) conducting the review, and 3) reporting the findings. By creating context-sensitive research, the review process can be used to create a trustworthy knowledge base and improve practise (Tranfield et al., 2003). We use this method since the utilization of literature reviews is employed to provide guidance and understanding to address the practical and policy-making requirements of practitioners.

Based on a bibliometric review of the literature and previous studies, we carried out extensive research on contingency theory in the public sector. To collect quantitative information on publications, sources, authors, organizations, keywords, topics, and trends, bibliometric analysis is used. Additional statistics (per year, source, author, organization, country/region) are run to assess the scientific output.

Like Woods' (2009) study, which compared results using the Scopus database alone, this method was judged appropriate for compiling the complex academic data found in the database to support research topic analysis, as it encompasses a wider variety of scientific literature.

By using Scopus, we can see who is doing what research at which institution and in the global literature more accurately. Since the independent CSAB, an international body of subject matter experts in all fields of study, carefully selects and curations only the most reputable journals and their content, only the best are available on Scopus. However, when comparing the results, it is important to keep in mind that different databases have different effects on citation, co-occurrence, bibliographic coupling, and co-citation.

We extracted the article using the Scopus repository in September 2024, combining the terms "Contingency Theory" AND ["Public Policy" OR "Policy Implementation" OR "Public Administration" OR "Government"] and were filtered by the topic: Article title, Abstract, Keywords. This search yielded 159 articles in the range 1979 to 2024, consist of 143 journals, 7 conference proceedings, 6 books, and 3 book series. We use them all in this study (n=159). Then, we conducted a co-occurrence analysis by VOSviewer software. It utilised to perform a co-word analysis (keyword cooccurrence). VOSviewer tool is used to map the scientific research topics in the entire period under review and to identify the research trend topics according to: the occurrences, the average publication year, the average citations and the link strength between keywords.

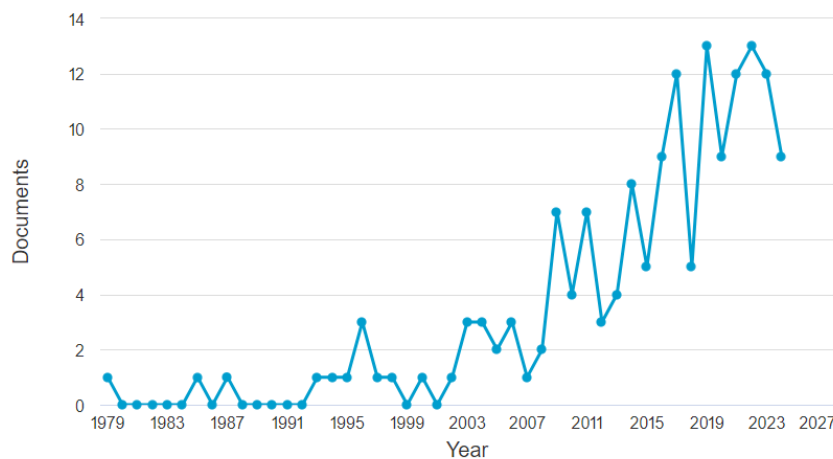
**RESULTS AND DISCUSSION**

*Historical developments in publishing*

Figure 1 shows the research evolution of this field. Started very slow in 1979, this study actually shows a significant increase in the last few years. With a total of 13 documents published, 2019 & 2022 marked the peak. 9 documents have been published so far in 2024, which is still ongoing.

**Figure 1.**

**Analyze Search Research by Year in Scopus**

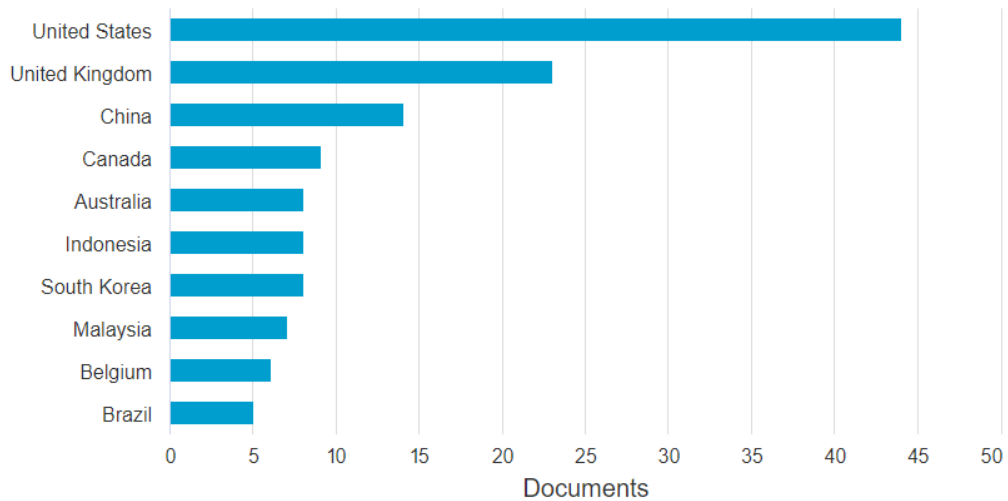


Source: Scopus

Territory and Subject Area

Figure 2 show the United States as the most countries/territories have done the research about contingency theory in public sector. They published 44 documents, followed by United Kingdom with their 23 publications, and China with 14 documents. Interestingly, this subject also attracted the attention of researchers in Indonesia, which has published 9 documents.

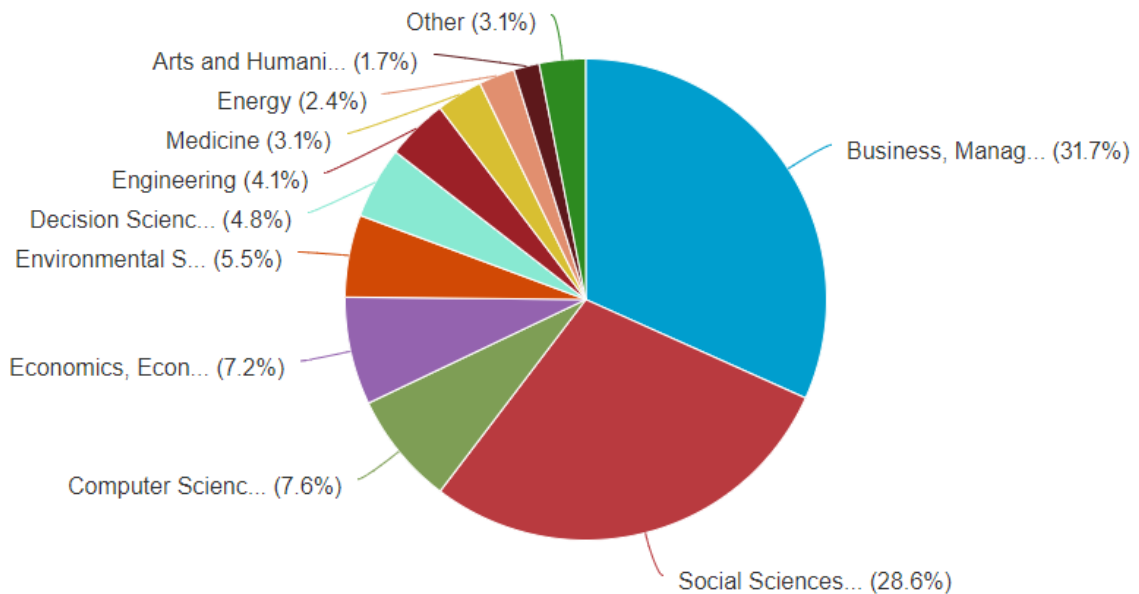
**Figure 2.**  
**Analyze Search Research by Country or Territory in Scopus**



Source: Scopus

According to the different research areas, as can be seen in Figure 3, the most publications were in the Business Management & Accounting subject with 92 publications, followed by 83 in Social Science, 22 in Computer Science.

**Figure 3.**  
**Analyze Search Research by Subject Area in Scopus**



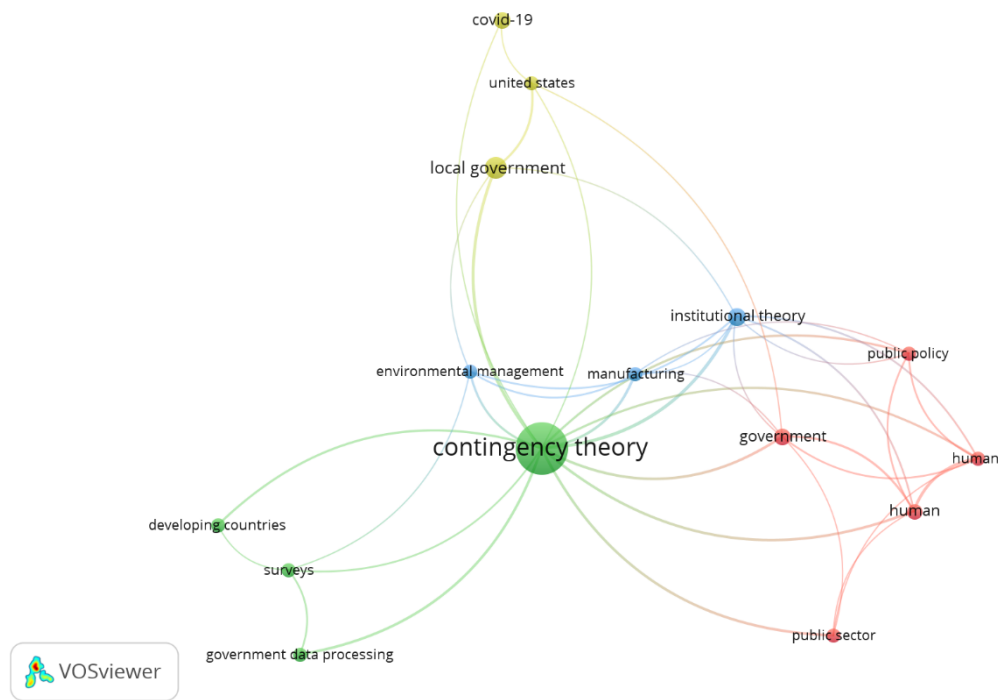
Source: Scopus

*Analysis by VOSviewer software*

In a co-occurrence analysis, the relationships and frequency between keywords aid in locating the research topics they stand for, assisting in understanding the cognitive structure of a particular field and identifying the trending issues within a particular research stream (Alonso-Munoz et al., 2022).

According to the main research focus in the field and considering the strength of the links between the keywords, some clusters are created from a thresholds based on the co-occurrence identified by the VOSviewer software. The total link strength measures the strength between the keyword relationship (Alonso-Munoz et al., 2022). For this case, out of the 159 articles selected, we obtained 916 words, with a minimum of 5 occurrences, 15 keywords meet the thresholds. As we can see in figure 4.

**Figure 4.**  
**Co-occurrence Analysis by VOSviewer Software (All Keyword)**



Source: Processed with VOSviewer

The most co-occurring keywords is Contingency theory, followed by “Local Government” and “Institutional Theory”. It proves that government administration, especially regional government, is linked to contingency theory and institutional theory. The clusters are:

Cluster 1: Government, Human, Humans, Public Policy, Public Sector

Cluster 2: Contingency Theory, Developing Countries, Government Data Processing, Surveys

Cluster 3: Environmental Management, Institutional Theory, Manufacturing

Cluster 4: Covid-19, Local Government, United States

Furthermore, we identified the rank of the country by the number of citations by using VOSviewer in the table 1. Out of the 159 articles selected, we obtained 49 countries, with a minimum number of documents of county is 5, and 13 keywords meet the thresholds.

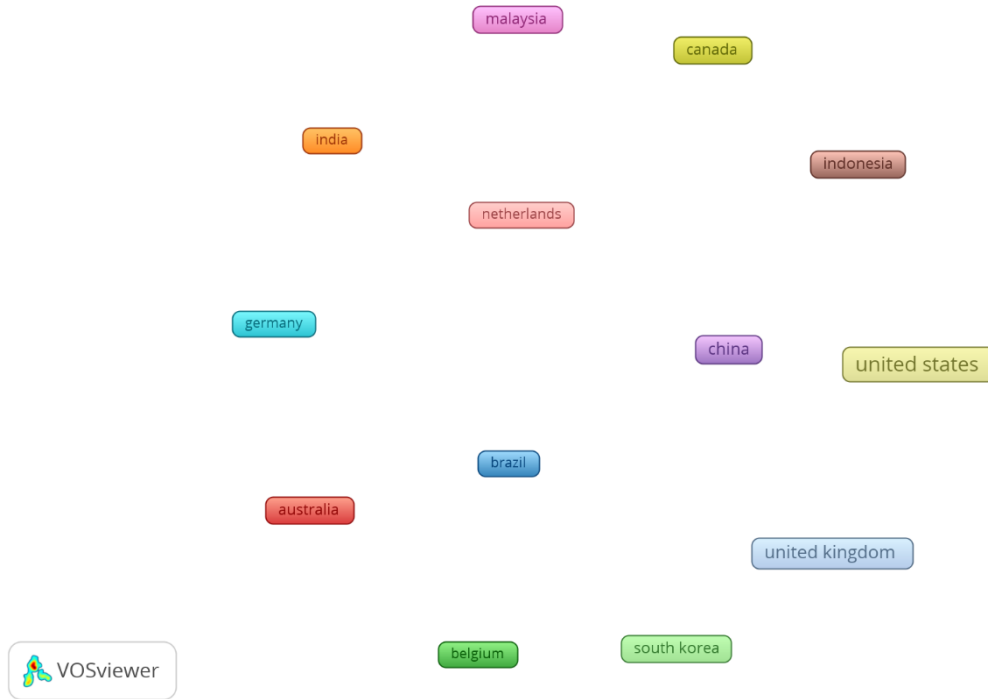
**Table 1**  
**Citations Analysis Based on Countries**

No	Country	Documents	Citations
1	United States	44	837
2	United Kingdom	23	767
3	Australia	7	303
4	China	14	292
5	Canada	9	191
6	South Korea	8	153
7	Belgium	6	110
8	Malaysia	7	109
9	Germany	5	100
10	Netherlands	5	96
11	Indonesia	9	96
12	Brazil	5	12

Source: Data Input VOSviewer

We can see the illustration of the country with the most citation in Figure 5 below.

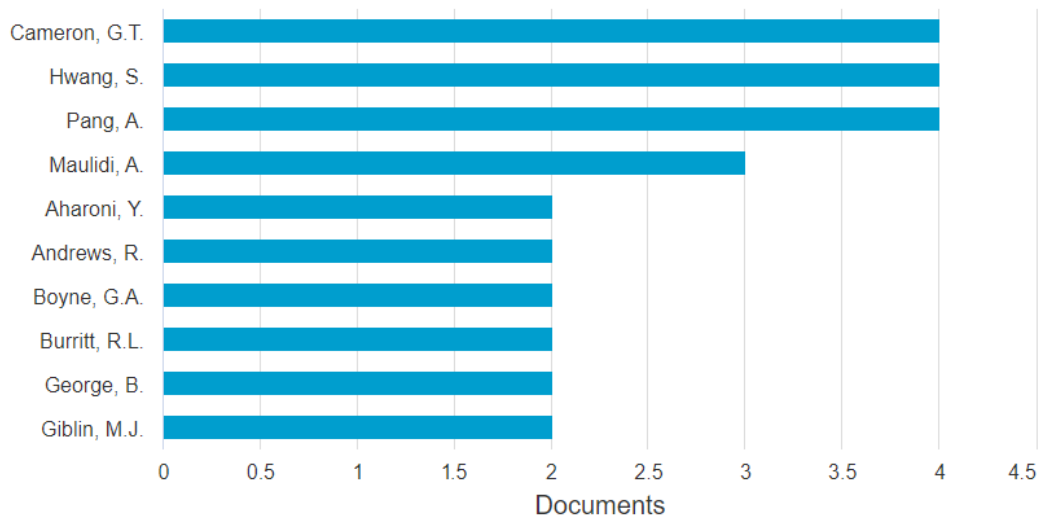
**Figure 5**  
**Citation (Countries) Analysis by VOSviewer Software**



Source: Processed with VOSviewer

Some authors show concern in this area of research and develop their research, as we can see in Figure 6. This shows that the study of contingency theory is still feasible even though more than fifty years have passed since this concept was first introduced.

**Figure 6.**  
Analyze Search Research by Author in Scopus



Source: Scopus

Cameron, G. T. published 4 documents in the period 2004-2021 (Boman et al., 2021; Hwang et al., 2022; Hwang & Cameron, 2008; Hwang & Kim, 2017; Jin et al., 2006). We can see the illustration co-authorship analysis in Figure 7 below.

**Figure 7.**  
**Co-authorship Analysis by VOSviewer Software (Author)**



*Source: Processed with VOSviewer  
Discussion*

*Combination Theory in the Research*

The analysis of the findings demonstrates the research's utmost reliance on technical and procedural concepts. It is clear that contingency theory is one of the useful theory and/or framework that can be used in the public sector research. Based on the findings of the review of prior publications, it is clear that the contingency theory can be used not only as a single viewpoint but also to be used together with other theories, as shown in the following table.

**Table 2**  
**Other Theories Used Along with Contingency Theory**

<b>Theory/Framework/ View/Perspective (s)</b>	<b>Sources</b>
Resource-based	(Andrews et al., 2016; Aremu et al., 2021; Fiirst & Beuren, 2021; Mareth et al., 2017; Michael & Popov, 2016; Park et al., 2022; Safari & Saleh, 2020; Sudarevic et al., 2017)
Market-based	(Omran & El-Galfy, 2014; Safari & Saleh, 2020)
Rational choice	(Michael & Popov, 2016)
Organizational	(Ajmal et al., 2021; Bier, 2006; Horch & Schütte, 2009; Kirsop-Taylor & Hejnowicz, 2022; Leeman et al., 2019; Mengchuanjin, 2011; Sensuse et al., 2020)
Institutional	(Alsaid & Ambilichu, 2023; Burruss et al., 2010; Luo et al., 2017; Qian et al., 2011; Quesado et al., 2014)
New Institutionalism	(Bode & Maerker, 2014; Entwistle, 2011; Horch & Schütte, 2009)
Economic	(Horch & Schütte, 2009)
Agency	(Kahar et al., 2019; Luo et al., 2017; Monteiro & Cepêda, 2021; Omran & El-Galfy, 2014)
Resource Dependency	(Burruss et al., 2010; Dahle & Archbold, 2015)
Transaction Cost	(Malatesta & Smith, 2015; Pramudana et al., 2023)
Dynamic Capability	(Chatterjee & Chaudhuri, 2022; Park et al., 2022; Song et al., 2022)
Stakeholder	(Igboke & Raj, 2022)

Leadership	(Mengchuanjin, 2011; Pan & Chen, 2021; Rouhana & Caillie, 2016)
Social Identity	(Moon & Browning, 2022)
Technology Acceptance & General Systems	(Merhi et al., 2016)
Social System and Role & Decision	(Pan & Chen, 2021)
System Management & Governance	(Simangunsong et al., 2016)
Structuration, Relational & Equity	(Kavishe et al., 2018)
Innovation Diffusion & Social Cognitive	(Liang & Lu, 2013)
Attribution	(Mengchuanjin, 2011)
Business Model Canvas	(Saad et al., 2023)
Control	(Nuseibeh et al., 2019)
New Public Management	(Tahar & Boutellier, 2013)

*Source: Previous Research  
Comparative Theory in the Reseachr*

Contingency theory has been compared with normative isomorphism theory by George et al. (2019). The article examines the factors that influence how top public sector executives use management tools that are both organization- and client-oriented, drawing on normative isomorphism and contingency theory. Data from a large-N survey of 4,533 central government executives in 18 European countries is used to test the hypotheses. Ordinary least squares regression models for the nation and each sector show that contingency theory is more important than normative isomorphism. Public executives are more likely to use management tools if they work for larger organizations with clear goals and executive status. The existence of a top hierarchical position for public sector executives is the only normative pressure that positively affects the use of management tools.

#### *Area of Development*

Specifically, Cheng & Fisk (2022) proposed the justification from a theoretical standpoint for adding the idea of relationship management to the contingency theory of strategic conflict management (hereafter the contingency theory). This study has implications for expanding the contingency theory's application to relationship management beyond the static measurement of stances. In addition, according to their overall impact (positive vs. negative) and likelihood of occurrence (expected vs. unexpected/highly unlikely), Treiblmaier (2021) advise differentiating contingency factors.

Furthermore, Haris & Yang (2023) and Goeminne & George (2019) expand contingency theory to environmental contingency theory. According to this theory, there is no one best way to lead, manage, plan, and organize an organization. The implementation of rules, policies, and procedures, which serve as the foundation for organizations to make decisions regarding both routine and non-routine tasks, is impacted by uncertainty. Environmental contingency theory thus explains how an organization interacts with its external environment and why this relationship affects an organization's success. It has been said that environmental turbulence is a significant contingency factor of an organization's external environment (Despoudi et al., 2021). It also mentioned by Choi & Giblin (2023) that environmental contingency is something that must be considering in the future research, since they found the gap in the connection between fitness and performance of using contingency theory in the study. In addition, the contingency approach used in Pleshko et al. (2014) entails taking into account organizational structure, environmental factors, and strategy in order to create the most successful configuration.

Interestingly, it turns out that the use of contingency theory is effective during an unprecedented emergency, namely COVID-19. It has been proven to help the decision-making process (Johnson et al., 2023), figured out how to strengthen Micro, small and medium enterprises (MSMEs) resilience and keep this sector's growth going (Sharma & Rai, 2023), response to external contingencies (Feitosa Jorge et al., 2022), recognising emergency situation behaviour of budget actors (Nkundabanyanga et al., 2022), and found that the two observed images of a city had different and distinct influences from contingent factors (S. Hwang et al., 2022) during the COVID-19 period.

## CONCLUSION

This study shows the history of the development of research on contingency theory carried out in the public sector. Even though it started very slow in 1979, this field of study actually shows a significant increase, but still fluctuate in the last few years. With a total of 13 documents published in 2019 & 2022, and 9 documents have been published so far in 2024, which is still ongoing. The United States as the most countries/territories have done this research, published 44 documents, and Indonesia is in the 6<sup>th</sup> position with 9 documents. The main research topics are related to contingency theory itself, local government and institutional theory.

This study offers a fresh perspective on earlier bibliometrics in the area of contingency theory in the public sector in terms of theoretical or academic implications by bringing contribution: the use of VOSviewer as a complementary software to a better understanding of the research stopic evaluation. Even though it also has a limitation where there is a subjective element to the interpretation of the co-word analysis maps displayed by VOSviewer.

However, this is a crucially important area where researchers can produce insights that have an impact on both the world of organizations and helping to establish theoretical hypotheses. Future research can enrich the study by using other analytical tools, such as Scimat used by Alonso-Muñoz et al. (2022) or using the systematic literature review as in the Mareth et al., (2017).

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