Public Private Partnership in Transportation Infrastructure: A Review on Toll Road Development

Evi Steelyana1*, Dhea Kinanti1

¹Accounting Department, School of Accounting, Bina Nusantara University, Jakarta, Indonesia 11480

Abstract. Public-private partnerships (PPPs) have become an increasingly important tool for delivering infrastructure and public services worldwide. In Toll Road development, PPP scheme is often being used to deliver public infrastructure. PPPs have received a lot of attention from academics as a new approach to public procurement. To enhance our knowledge of PPPs, this study aims to analyze the trend of articles discussing collaborative governance in toll road developments with PPP schemes in Asian, African, American, Australian and European countries during the 2000–2020 period and analyze the most discussed topic in PPP research specifically in collaborative governance. The relationship between PPP research and Public Sector Accounting Theory is also analyzed. Using a qualitative method with a Systematic Literature Review approach, this study analyzed published articles from reputable international journals. Result of this study shows a positive trend in the quantity of research articles that discuss collaborative governance in toll road development by PPP scheme. Moreover, it found also that frequently discussed topics in PPP research are Risk Management, Value for Money, Critical Success Factors, PPP Challenges, PPP Evolution and Financing. This study found that Public Sector Accounting Theory (Governance Theory, Institutional Theory and Stakeholders Theory) have influenced most the PPP scheme in toll road development.

1. Introduction

Demand for infrastructure development will always be positively related to population growth and increased urbanization. In transportation sector, the high costs arising from poor connectivity impose a large barrier for foreigners to invest and procure industries to combat the causes of poverty and inequality [1] consider the geographical condition in Indonesia, between the islands and points in the archipelago. Public-Private Partnerships (PPP) scheme can deliver real value and high-quality infrastructure [2]. According to The World Bank [3], under the right circumstances, PPPs can improve infrastructure projects by delivering advance progress which offer Value for Money than traditional procurement models.

According to Wanna [4], the government relies on collaboration between public and private sector to improve the PPP implementation and provide better public service for all stakeholders. Collaboration is a significant factor for PPP Implementation and integrates all the perspectives and objectives between public and private sector for delivering public service [4]. The demand for toll road construction which connects many regions impacts the raise of foreign and local investment level and it leads to the country's economic growth, especially in Indonesia, an archipelago type of country. Private initiative should be encouraged by the government's participation in PPP through the Public

Policy and Regulatory Framework, which effects the utilization of public money and private investment area [5].PPP scheme have been used in many other countries to develop transportation infrastructure especially in toll road construction.

1.1. Objectives

As PPP is a collaboration process between Public and Private sector, then collaborative governance will become the base of PPP Governance. This study has reviewed collaborative governance studies on toll road construction with the PPP scheme. The objective of the study is to find the most popular themes in research articles on collaborative governance in toll road construction with PPP schemes in Asian, African, American, Australian, and European countries from 2000 to 2020 and the relation between research topic and domain theory in public sector accounting.

2. Methods

This study uses the Qualitative method with the Systematic Literature Review which could explore the qualitative data in depth, and it also supports the study to identify gaps in the existing literature. By using secondary data from academic articles that discuss collaborative governance on the construction of the toll road PPP schemes in countries in Asia, Africa,

^{*} Corresponding author: Evi.Steelyana@binus.ac.id

America, Australia, and Europe the period 2000 to 2020 which was taken from are three academic databases which are; Science Direct, Taylor & Francis Online, and Emerald Insight, which are then refined based on several criteria, namely:

- 1. Articles with complete data (all parts of the article are available).
- Articles discussing collaborative governance in toll road development with PPP schemes carried out in Asian, African, American, Australian and European countries during the 2000-2020 period.
- Articles that are not duplicates, in the sense that they are found in two or more different academic databases.
- Articles that are not scientific essays in the form of a thesis, thesis, or unpublished literature in a journal (unpublished literature).

3. Data Collection

At the start of the online search, this study found a large number of completely irrelevant articles, namely articles whose main discussion was not only an aspect of the research question, but also had nothing to do with toll road construction under the PPP scheme.

Table 1. Research Sample Selection

No.	Criteria	Total	
1.	Articles found in three academic databases, namely Science Direct, Taylor & Francis Online, and Emerald Insight by using keyword	973	
2.	Incomplete data (the entire article is not available)	(335)	
3.	Not discussing collaborative governance on the construction of the toll road PPP schemes undertaken in the countries of Asia, Africa, America, Australia, and Europe for the period 2000-2020	(589)	
4.	It is duplication, in the sense that it is found in (0) two or more different academic databases		
5.	Is a scientific essay in the form of a thesis, (1) thesis, or an article that is not published in a journal (unpublished literature)		

The number of articles selected as the research sample

Source: Author's compilation

The search for articles relevant to this research topic was carried out extensively until June 2020. There are 973 articles in 24 journals whose main discussion is about toll road construction with the PPP scheme. Of 973 articles found, 335 articles were eliminated because they did not have complete data. Furthermore, 589 articles were also eliminated because they did not discuss collaborative governance in toll road development with PPPs in Asian, African, American, Australian and European countries during the 2000–2020 periods. The application of the

third criterion does not change the number of articles, because there are no duplicate articles. Thus, 48 articles in 16 journals were selected as samples after the authors applied the criteria that the authors set above. The filtering process using pre-defined criteria, enables the author to determine the number of samples to conduct the election and rejection of a literature (inclusion and exclusion criteria), so that the sample used in this study correspond to the topic of research.

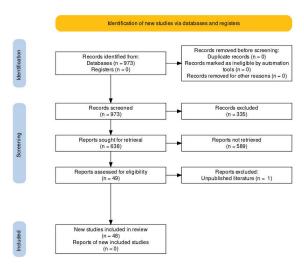


Fig.1. The Flow Diagram of PRISMA

(The Preferred Reporting Items for Systematic Reviews and Meta-Analyses)

All articles selected as research samples were processed using NVivo software. The relevant sections of the article are stored under various codes that represent the main points of this research topic. All the code that is associated with a topic examined in conjunction to ide ntify the themes that came up repeatedly for specific topics.

This research framework summarizes what the authors have done to complete this research. The first step that the author takes is looking for literature, in this case an academic article. Scopus Indexed Journals were selected for the literature search because of their comprehensive coverage among relevant journals. The author selects the literature using keywords to get articles that match the research topic. After that, the writer did the coding by reading the title, abstract, and keywords first.

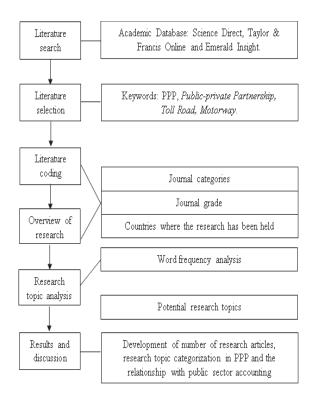


Fig.2. Research framework

4. Results and Discussion

4.1. Research Sample Categorization

Research on toll road construction with the PPP scheme can be found in accounting literature journals and journals outside the accounting literature therefore to be in line with the research objectives then this study has categorized the result accordingly.

Journal Categories

From the 24 journals found, 16 journals had articles discussing collaborative governance in development with PPP schemes in Asian, African, American, Australian and European countries during the 2000-2020 period. This study uses the SCImago Journal & Country Rank website to find out the categories and grades of the journals that the finds. SCImago Journal & Country Rank is a portal that is available for the public which includes the journals and country scientific indicators developed from the information contained the database Scopus® (Elsevier B.V.). The indicators of this can be used to assess and analyze the scientific domain. Journals can be compared or analyzed separately. Country rankings can also be compared or analyzed separately. Journals can be grouped by subject area (27 main theme areas), subject category (313 specific subject categories) or by country (SCImago, nd). Based on the category, the journals found by the authors can be divided into three categories, namely: (1) Business, Management and Accounting, (2) Social Sciences, and (3) Others.



Fig.3. Journal categories

Based on the Scimago Journal & Country Rank website, a journal can be mapped into more than one category. The journals that are categorized as Business, Management and Accounting and Social Sciences, the authors count as journals that are categorized as Business, Management and Accounting. There are 16 journals that discuss collaborative governance in toll road development with PPP schemes in Asian, African, American, Australian and European countries for the period 2000-2020, six of them are journals in the category of Business, Management and Accounting. The other six are journals in the Social Sciences category, and the remaining four are journals with categories other than Business, Management Accounting and Social Sciences. Thus, this study is dominated by journals with the category of Business, Management and Accounting and Social Sciences, which are both 38 percent and 37 percent, followed by journals with the others category at 25 percent.

Journal Grade

In addition to the journal category, the author also classifies journals by journal grade on the SCImago Journal & Country Rank website.

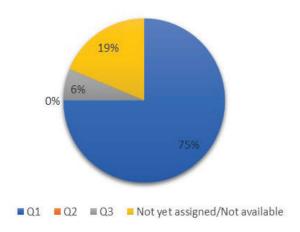


Fig.4. Journal grade

From 16 journals that discuss collaborative governance in toll road development with PPP schemes in Asian, African, American, Australian and European countries for the period 2000–2020, 12 (75%) of them

are published in journals with Q1 in Scopus Indexed. Only one journal is grade Q3, and 3 others have not been assessed (not yet assigned) or are not listed on the SCImago Journal & Country Rank website (not available). Thus, this study did not use the journal to grade Q2, dominated by the journal with grade Q1, followed by journals with grade Q3 and journals which grade it not yet assigned or not available.

Countries in the Study Sample

This research uses academic articles published in Asian, American, Australian and European countries. The countries in which the research sample was conducted are as follows United States ranked first (25%) with 12 articles did research on it. Followed by Spain with eight articles (16.67%), Great Britain and Australia with 7 articles each (14.58 %), Portugal with 6 articles (12.5 %), Greece with 5 articles (10.42 %), Nigeria, France, Italy, and Belgium with 4 articles (8.33 %), Indonesia with 3 articles (6.25 %), Netherlands, Hungary, Germany, Mozambique, People's Republic of China, Turkey, Chile and Canada with 2 articles (4.17%), closed by Singapore, India, Japan, Russia, South Africa, Senegal, Colombia, Mexico, Austria, Sweden, Poland, Croatia, Ireland, Brazil and Norway 1 article each (2.08 %).

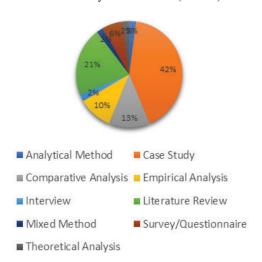


Fig.5. Research method

If the 48 research samples, case study is the most popular research method because it is used by 20 articles. These statistical results are understandable because the case study method provides in-depth information about the phenomenon under study. The literature review method is also no less popular because it ranks second with 10 articles using this method. Followed by a comparative analysis of 6 articles, empirical analysis with five articles, survey/questionnaire with three articles, and one article each for analytical method, mixed method, interview, and theoretical analysis.

4.2. Development of Number of Research Articles

This study uses articles published in the 2000–2020 period as a sample. The number of research articles that discuss collaborative governance on the construction of road tolls with a scheme of PPP in countries of Asia, Africa, America, Australia, and Europe is visualized in Table 2.

Table 2. Number of Articles Published Each Year

Year	Total	Year	Total	Year	Total
2000	0	2007	0	2014	1
2001	0	2008	1	2015	10
2002	1	2009	0	2016	3
2003	0	2010	6	2017	7
2004	0	2011	1	2018	6
2005	0	2012	2	2019	5
2006	1	2013	3	2020	1

A positive trend in the development of the number of research articles discussing collaborative governance in toll road development with PPP schemes in Asian, African, American, Australian and European countries during the 2000–2020 period. The year with the most published articles during the 2000–2020 period is 2015, amounting to 20.83 percent of the total 48 research samples. Meanwhile, the results for 2020 are not the maximum results, because this research was conducted in mid-2020.

The author also conducted a search for the 50 words that appear most frequently in the sample of this study. The author uses the word frequency query feature by applying a stemmed word or using the same prefix to group the words. The results of the word frequency query are contained in the word cloud as shown in Figure 6 below.



Fig. 6. Word cloud research sample



Fig.7. Research topic

Research Topic Category

From the two results of data processing using NVivo software, Figure 7 contains six categorizations of research topics that have been concluded using these results, namely topics that are often discussed are contained the 48 samples of this study. Risk Management, Value f or Money, and Critical Success Factors are the three most discussed topics with 12 articles each. Then, there are six articles that discuss PPP Challenges. Finally, **PPP** Evolution is discussed in 3 articles, and Financing which is also discussed in three articles. The three topics that most discussed which are:

(1) Risk Management; PPP project has risk sharing system that resulted better rewards between public and private sectors, objectives of the project were carried out by the scheme of PPP is that the services are given far more better than the results of the project are made traditionally [6]. (2) Value for Money (VfM); VfM analysis is a widely used tool for public transport agencies in examining the use of PPPs as a method of procuring their potential transportation projects around the world. The purpose of the VfM analysis is to help decision makers evaluate various project procurement methods by comparing traditional procurement methods with PPP, and to determine which procurement method is the cheapest from a public perspective. Initially, VfM analysis is a financial analysis from the perspective of a public agency [2]. Chung and Hensher's research [7] discuss issues from the perspective of the public and private sectors involved in toll road provision by integrating the theory of value creation and transaction cost economics (TCE) in investigating the source of value in terms of competencies and skills in risk management owned by one party. (3) Critical Success Factors (CSFs); how to handle the challenges in PPP are the most important factors for the success of a PPP project. A success and failure factor shows the feasibility of an infrastructure built with a PPP scheme in an area. The results of the research by Hwang, Zhao, and Gay [8] stated that the well-organized public agency factor is the most important CSF in the PPP project in Singapore. These results imply that the sector may public who does project PPP must represent the interests

of the public, and have the expertise and capacity to hold PPP projects [8]. Meanwhile, according to Osei - Kyei and Chan

[9], actions and policies are right, made and taken by the stakeholders will have an impact on the acceleration of infrastructure development with the PPP scheme, (according to the number five CSFs). The government must also support and ensure the partnership agreement that has been signed by the previous government (in accordance with CSFs number six), and most importantly, the government must demonstrate its commitment by providing comprehensive policy guidelines for PPP project procurement (in accordance with CSFs number eight) [9].

4.3. Research Topic Categorization in PPP and the Relationship with Public Sector Accounting

The term public sector accounting is a shift from the term governmental accounting, which is a term that has long been used. The term public sector accounting expands the area of study to all entities aimed at the welfare of society, such as public and private sector cooperation projects.

Idris, Moghavvemi, and Musa [10] stated that public sector accounting is a unique and important subject that has not achieved as much research interest as that in the private sector. The studies conducted in this sector are generally descriptive in nature and aim to increase the effectiveness of this sector. Thus, the application of the theory is rarely done in the public sector accounting research prior to 2000. As for the research conducted after 2000 showed some use of theory, which is reinforced by research doctoral were conducted in the area. Table 3 lists examples of theories applied to public sector research and the authors who have applied them.

Table 3. Applied Theories in Public Sector Accounting

No.	Theory	Author
1.	Agency theory	Bolivar et al. (2007) [11] Laswad et al. (2005) [12] Caba Perez et al. (2008) [13]
2.	Regulations Inside Government	Hood <i>et al.</i> (1998; 1999) [14, 15] Abu Hasan <i>et al.</i> (2013)* [16]
3.	Public Accountability Paradigm/ Public Sector Reform	Coy and Dixon (2004) [17] Ryan <i>et al.</i> (2002) [18] Tooley <i>et al.</i> (2010) [19]
4.	Governance	Keasey and Wright (1993)[20] Hodges <i>et al.</i> (1996) [21]
5.	New public management (NPM)	Dunleavy and Hood (1994) [22] Pollitt (2007) [23] Abu Hasan <i>et al.</i> (2013)* [16]
6.	Contingency theory	Christensen and Yoshimi

		(2003) [24] Marcuccio and Steccolini (2009)* [25] Luder (1992) [26]
7.	Audit explosion	Abu Hasan <i>et al.</i> (2013)*[16] Power (2004)[27]
8.	Institutional theory	Mussari and Monfardini (2010) [28] Hoque (2008) [29] Abu Bakar (2013)* [30]
9.	Public Choice theory	Giroux (1989) [31] Herawaty and Hoque (2007)*[32]
10.	Incentive theory	Perez et al. (2008) [33]
11.	Legitimacy theory	Marcuccio and Steccolini (2009)* [25]
12.	Stakeholder theory	Herawaty and Hoque (2007)* [32]
13.	Politico-Economic Model of Positive Accounting Theory	0 () []

Resource: Idris, Moghavvemi, Musa [10]

Of the 13 theories presented in Table 3 are the theories that applied in Public Sector Accounting Research, some of it are related to PPP scheme. As PPP is a collaborative process, three theories have are major impact to the body of knowledge which are (1) Governance Theory, (2) Institutional Theory and (3) Stakeholders Theory. Research Topic Categorization in PPP (Risk Management, Value for Money, Critical Success factor) and relationship with Public Sector Accounting Theory (Governance Theory, Institutional Theory and Stakeholders Theory).

5. Conclusions

Based on result and data analysis, this study concludes some points that in line with the research objectives which aim to categorize the research topics on collaborative governance in toll road development with PPP schemes in Asian, African, American, Australian and European countries for the period 2000-2020. There is a positive trend in the number of developments in the number of research articles which are published in international journals. During the 2000-2020 period, 2015 was the year with the most published articles during the 2000-2020 period, amounting to 20.83% of the total 48 research samples and the research are published in journal category which are Business; Management and Accounting; Social Sciences. The study found that 75% of the journals are published in Q1 Scopus Indexed. The countries with highest publication are United States ranked first with 12 articles (25%), followed by Spain with eight articles (16.67%) and UK and Australia with seven articles each (14.58 %).

This study found six research topics which are Risk management, Value for money, Critical success factors, PPP challenges, PPP evolution, and Financing. Another objective of the study is to find the most relevant accounting theory with PPP. Idris, Moghavvemi, and

Musa (2015) stated that public sector accounting is a unique and important subject that has not achieved as much research interest as that in the private sector. The studies conducted in this sector are generally descriptive in nature and aim to increase the effectiveness of this sector. Thus, the application of the theory is rarely done in the public sector accounting research prior to 2000. As for the research conducted after 2000 showed some of theory are used, which is reinforced by research that conducted in the area.

This study found some theory that related to accounting and management that applied in Public Sector Accounting Research which are: Agency theory, Audit Explosion, Contingencies theory, Governance theory, Institutional Theory, Incentive Theory, Legitimation Theory, New Public Management, Politico-economic model of positive Accounting Theory, Public Sector Reform, Public Choice Theory, Regulations inside Government, Stakeholders Theory.

This paper aims to analyze the most discussed topic in PPP research and the relationship with Public Sector Accounting Theory (Governance Theory, Institutional Theory and Stakeholders Theory). Research Topic Categorization in PPP that most discusses in studies are (Risk Management, Value for Money, Critical Success factor). As PPP is a collaborative process therefore three theories have are major impact to the body of knowledge which are (1) Governance Theory (Governance Theory could be the based on how PPP are being operate and implemented to reach the public welfare and also deliver the project with value for money); (2) Institutional Theory (the Institutional Theory could explain the challenge on who are the agency of actors which affected by the PPP model and to streamline the project implementation process) and (3) Stakeholders Theory (Stakeholders Theory supports PPP stakeholder analysis and so determines PPP evaluation since PPP project success is a combination of stakeholders with different accomplishments which also consider as critical success factor for PPP project).

References

- Duffield, C., Hui, F. K. P. and Wilson, S., Infrastructure Investment in Indonesia: A Focus on Ports, Open Book Publishers, Cambridge, 2019.
- 2. Kweun, J. Y., Wheeler, P. K. and Gifford, J. L., Evaluating highway public-private partnerships: Evidence from U.S. value for money studies, Transport Policy, vol. 62, no. 1, pp. 12–20. 2018.
- 3. The World Bank, "Public-Private Partnerships: Reference Guide Version 2.0," Retrieved from https://ppp.worldbank.org/public-private-partnership/library/public-private-partnerships-reference-guide-version-20, 2017.
- Wanna, J., Collaborative government: meanings, dimensions, drivers and outcomes. In J. O'Flynn & J. Wanna (Eds.), Collaborative Governance: A new era of public policy in Australia? (pp. 3–12). Canberra, Australia: ANU E Press, Canberra, 2008.
- 5. E. Steelyana, Applied Public Sector Accounting For

- Broadband Infrastructure Development With Public Private Partnership Scheme: A Literature Review, Journal of Applied Finance & Accounting 8 (1), 26-36
- Jones, R. and Pendlebury, M., Public Sector Accounting, 6th Edition, Prentice Hall, New Jersey, 2010.
- Chung, D. and Hensher, D. A., Public private partnerships in the provision of tolled roads: Shared value creation, trust and control, Transportation Research Part A, vol. 118, no. 1, pp. 341–359. 2018.
- Hwang, B., Zhao, X. and Gay, M. J. S., Public private partnership projects in Singapore: Factors, critical risks and preferred risk allocation from the perspective of contractors, International Journal of Project Management, vol. 31, no. 3, pp. 424–433. 2013.
- 9. Osei Kyei, R. and Chan, A. P. C., Developing Transport Infrastructure in Sub-Saharan Africa through Public–Private Partnerships: Policy Practice and Implications, Transport Reviews, vol. 36, no. 2, pp. 170–186. 2015.
- Idris, A., Moghavvemi, S., & Musa, G. (Eds.)., Selected Theories in Social Science Research, University of Malaya Press, Kuala Lumpur, 2015.
- M. P. R. Bolivar, I. M. Garcia-Sanchez, and M. J. Munoz-Torres, "An analysis of the use of financial ratios to differentiate between types of Spanish local governments," Public Administration Review, vol. 67, no. 6, pp. 1076-1088, Nov./Dec. 2007, doi: 10.1111/j.1540-6210.2007.00778.x.
- 12. F. Laswad, R. Fisher, and M. Tan, "Agency theory and variables associated with effective budgetary participation," Managerial Auditing Journal, vol. 20, no. 2, pp. 155-169, Jan. 2005, doi: 10.1108/02686900510582251.
- C. Caba-Perez, C. Larrinaga-Gonzalez, and J. M. Moneva-Abadía, "Corporate social responsibility information and its influence on investment decisions: Evidence from the European financial market," Journal of Business Ethics, vol. 82, no. 4, pp. 933-946, Dec. 2008
- 14. G. Hood, O. James, and C. Scott, "Regulation inside government: Has it worked?," in Government and public policy in the Pacific Islands, Canberra, ACT, Australia: Department of Political and Social Change, Research School of Pacific and Asian Studies, Australian National University, 1998, pp. 117-129.
- 15. G. Hood, O. James, and C. Scott, "Regulation inside government: The case of the UK," Journal of Public Policy, vol. 19, no. 2, pp. 167-201, Aug. 1999.
- 16. M. R. Abu Hasan, N. A. Z. Abdullah, N. A. Zakaria, and M. M. Saleh, "Regulations inside government: An application of institutional theory," Journal of Applied Sciences, vol. 13, no. 9, pp. 1438-1443, 2013.
- 17. P. G. Coy and R. Dixon, "Public accountability paradigms in UK local government: An empirical analysis," Financial Accountability & Management, vol. 20, no. 1, pp. 51-72, 2004.
- 18. P. G. Coy and R. Dixon, "Public accountability paradigms in UK local government: An empirical

- analysis," Financial Accountability & Management, vol. 20, no. 1, pp. 51-72, 2004.
- 19. P. G. Coy and R. Dixon, "Public accountability paradigms in UK local government: An empirical analysis," Financial Accountability & Management, vol. 20, no. 1, pp. 51-72, 2004.
- 20. K. Keasey and P. Wright, "Corporate governance: accountability, enterprise and international comparisons," New York, NY: Wiley, 1993.
- 21. R. Hodges, M. T. Keaney, and M. Wright, "Corporate governance and accountability: an overview," Corporate Governance: An International Review, vol. 4, no. 2, pp. 62-76, 1996.
- P. Dunleavy and C. Hood, "From old public administration to New Public Management," Public Money & Management, vol. 14, no. 3, pp. 9-16, 1994. doi: 10.1080/09540969409387816.
- 23. C. Pollitt, "The essential public manager," New York, NY: Open University Press, 2007.
- 24. J. F. Christensen and M. Yoshimi, "Contingency theory and management accounting: a critical analysis," Accounting, Auditing & Accountability Journal, vol. 16, no. 4, pp. 522-546, 2003.
- 25. A. Marcuccio and I. Steccolini, "Accounting and accountability under New Public Management in Italy: A recipe for an impossible dialogue?," Financial Accountability & Management, vol. 25, no. 1, pp. 25-48, 2009.
- G. Luder, "Contingency theory: A special issue of accounting organizations and society," Accounting, Organizations and Society, vol. 17, no. 3-4, pp. 245-546, 1992.
- 27. M. Power, "The audit explosion," Demos, London, 2004. [Online]. Available: https://www.demos.co.uk/project/the-audit-explosion/.
- A. Mussari and P. Monfardini, "Institutional theory and accounting regulation: An overview of the Italian experience," Journal of Accounting and Public Policy, vol. 29, no. 4, pp. 354-368, Jul.-Aug. 2010.
- 29. Z. Hoque, "A contingency model of the association between strategy, environmental uncertainty and performance measurement: Impact on organizational performance," International Business Review, vol. 17, no. 3, pp. 356-367, Jun. 2008
- S. Abu Bakar, "Institutional theory: A review and critique," Asian Social Science, vol. 9, no. 3, pp. 274-280, Feb. 2013
- H. A. Giroux, "Schooling and the Struggle for Public Life: Critical Pedagogy in the Modern Age," Minneapolis, MN: University of Minnesota Press, 1989.
- 32. V. Herawaty and Z. Hoque, "Accountability, Organisational Learning and Performance in the Public Sector: A Conceptual Framework," Int. J. Learn. Intel. Cap., vol. 4, no. 4, pp. 445-462, 2007.
- 33. P. Pérez, M., Sánchez, I. G., & Torres, M. J. M. Incentive theory: An analysis of Spanish local governments. Journal of Public Administration Research and Theory, 18(4), 559-586. (2008)
- 34. M. M. Cheng, "A politico-economic model of positive accounting theory," Journal of Accounting

and Economics, vol. 15, no. 1, pp. 127-158, 1992.
35. M. Smith, "Testing the politico-economic model of accounting regulation in the United Kingdom," European Accounting Review, vol. 13, no. 2, pp. 299-319, 2004.