



Law and Humanities Quarterly Reviews

To, D. T. (2023). A Literature Review of Public Investment Capital Management in Infrastructure Construction. *Law and Humanities Quarterly Reviews*, 2(4), 1-15.

ISSN 2827-9735

DOI: 10.31014/aior.1996.02.04.81

The online version of this article can be found at:
<https://www.asianinstituteofresearch.org/>

Published by:
The Asian Institute of Research

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A Literature Review of Public Investment Capital Management in Infrastructure Construction

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Abstract

The article conducts a literature review on the topic of public investment capital management in economic infrastructure construction. Using the bibliometrics method, the author has compiled and analyzed 383 studies to get an overall picture of this topic. Conclusions are drawn based on the following criteria: keywords, author, country, journal, and citations; The results obtained from the literature review show that this is a topic receiving great attention among researchers and retaining. There are two new research trends that the author noticed. First, to delve into theoretical research on public investment capital management, thereby making policy recommendations for governments. Second, to research the management of public investment capital in large projects in specific countries, thereby providing approval, implementation and strict control of public investment capital.

Keywords: Public Investment Capital, Infrastructure Construction, Bibliometrics

1. Introduction

Public investment has been studied quite a lot and is relatively comprehensive in the world on a theoretical basis (Arrow and Kurz, 1970) and empirically (Aschauer, 1989). Economists studying public investment during this period mainly focused on the closed economy, using the Ramsey model and AK's endogenous growth model (Futagami, 1993; Baxter and King, 1993; Glomm and Ravikumar, 1994; Fisher and Turnovsky, 1998).

In the following stage, public relations research developed in small open economies (Turnovsky, 1998). Resources for the Pope in developing countries are funded by bilateral and multilateral foreign loans; or through unilateral capital transfer. Foreign aid is seen as a financing tool for public infrastructure investment and its importance has increased during the expansion process. The link between foreign aid, growth, and macroeconomic governance has been a source of intense economic and political debate since the post-World War II reconstruction of Europe under Marshall's theory.

Research on the role of the Pope in socio-economic development by Edward Anderson and colleagues (2006 in "The role of public investment in poverty reduction: Theories, evidence and methods" poverty: Theory, evidence, and methods) or the study of the International Monetary Fund (IMF, 2015) "Making Public Investment more efficient". The research focuses on analysis and highlights the role of the Government in economic growth. growth and hunger eradication and poverty reduction. In particular, the study emphasizes that, regardless of political regime countries in the process of socio-economic development use state budget capital to spend part of their expenses. for the Prime Minister to build infrastructure, an area that requires a lot of capital, slow turnover, and low interest rates that other economic sectors do not want to invest in but plays a decisive role in creating the material and technical foundation of the country. At the same time, the research goes into in-depth analysis to prove that effective political mobilization creates a material foundation for socio-economic development, including the task of focusing on creating conditions for low-income groups. , difficult conditions can arise in the country's development. The study also provides an overview of several theories on the relationship between economics and social security, typically Kunet theory, as well as evidence and methods, thereby proposing ways to provide and better guide policymakers to use available techniques and information to set priorities for the Pope in the context of increasing pressure on this type of investment in developing countries. development in the process of realizing the millennium development goals.

Khan (1996) found the relative importance of public and private investment in promoting economic growth for a large group of developing countries. The study uses a data set of 95 developing countries in the period 1970 - 1990. The results of the study show that public and private investment have different impacts on economic growth, in which private investment has a greater impact on economic growth than public investment. Some other typical studies evaluating the impact of government spending and economic growth are Devarajan, Swaroop, and Zou (1996), Barro (1990), and Davoodi and Zou (1998). Among them: Barro's (1990) model evaluates the impact of general government spending on economic growth. The model of Devarajan, Swaroop, and Zou (1996) divides government spending into two spending components. The research model of Davoodi and Zou (1998) divides government spending into three levels: federal, state, and sub-state. The three authors use the Cobb-Douglas production function approach to evaluate the impact of investment factors on economic growth.

The literature review will provide an overall picture of the research situation related to public investment, especially in infrastructure construction, helping to make accurate judgments when embarking on research or making policy decisions in this area.

2. Methodology

2.1. Research process

This study followed the integrated systematic review approach developed by Hauser and colleagues (2006). Thereby providing standards for the system evaluation process based on three main steps including:

- (1) Establish criteria for a selected study
- (2) Conduct identification and selection of potential studies
- (3) Classification of selected articles

This method is considered suitable to carry out the purpose of this research which is to focus on integration and convergence for the assessment of public investment capital management in economic infrastructure construction. The specific process described in Figure 1 includes the following steps: Data collection, data filtering, analysis, synthesis and discussion, and finally pointing out inherited values that can be applied to research. this study and gaps for future research.

2.2. Collect data

The systematic review approach selected keywords for the search including "Public Investment Management", "Infrastructure" and "Economic Growth", on the Web of Science data source. With this method, the subjectivity

of researchers in data collection is eliminated. The method proposed by Becheikh et al. (2006) considered only empirical articles that were published and published in academic journals; For this reason, non-experimental studies (internet sources...) were excluded from the review.

The first result for the literature search for the keywords “Public Investment Management” AND “Economic Growth” in the subject (title, abstract, and keywords), and “Public Investment” AND “Economic” AND “Infrastructure” in the abstract, produced 554 corresponding results. The next step was to filter articles with the selected language being English, excluding conference articles, and book genres, yielding 485 results. The third step is to determine the article conditions suitable for the research from the title, to the summary and finally the entire text to best suit the topic of Public Investment Capital Management in Vietnam. economic infrastructure construction, the total number of articles finally selected was 383 (table 1).

The systematic review process for research will include the following stages:

1. Carry out analysis based on the criteria (research location, research method, classification of factors affecting public investment capital management, proposed policies) in the research.
2. Performing bibliometric analysis on selected articles will indicate the clusters of interest of authors and which clusters readers are interested in in the management of public investment capital in the construction of economic infrastructure of countries. countries and regions around the world.

Table 1: Search results on the selected database

Database	Web of Science
Keywords _	Public Investment Management; Economic Growth; Infrastructure
Search _	Topic (Title, Abstract, Keywords)
Document Type	Articles
Year of publication	1997 -2023
Language _	English
Research area	All
Web of Science Categories	All
Results _	383 articles

Source: Collected by the author

2.3. Bibliometric analysis

Bibliometric analysis methods use quantitative information from bibliographic databases (Web of Science) to identify influential previous articles. The bibliographic co-citation analysis method is based on citation data on the topic of public investment capital management in economic infrastructure construction to determine the structure of the theoretical foundations of the current literature.

Bibliometric data from the Web of Science for the 383 reviewed articles were published, and a co-citation analysis to reveal the theoretical underpinnings of research on investment capital management was performed. Co-citation is a measure of similarity between articles, authors, or journals (Zupic and Čater, 2014). In co-citation analysis, one counts the number of times two certain articles are cited in articles published later than the two cited articles above. The fact that the two articles are both cited by a newer article may indicate a certain quantitative relationship between the two previously published and co-cited articles. The higher the number of co-citations, the higher the relationship between the two articles (Cao Minh Kiem, 2009).

3. Discussion and results

3.1. Study country distribution analysis

Among the 383 selected articles, 80 countries conducted empirical research on the topic of public management in general and public management in investment in economic infrastructure construction in particular. Table 2

lists the 10 countries with the highest publication rates from 1977-2022. The country with the highest percentage of articles is the US with a total of 90 published publications and also achieved the highest total number of article citations with 1349 citations, however, the US only ranks fourth out of ten countries with a Citation rate of 14.99 citations per article. After the US, China is the second country in terms of the number of published research articles with a total of 45 articles, with a total of 397 citations, ranking sixth in the citation rate per article with 8.84 times. Ranked third is the UK with 43 articles related to public investment capital management, ranked second in total citations with 577 times, and is also the country with the second highest rate of links to articles from other countries. with 2112 links. Ranked fourth are Ukraine and South Africa with 15 published articles, however South Africa has a much higher citation rate with 271 citations compared to Ukraine with 32 citations. Since then, Ukraine has also been the country with the lowest citation rate per article with 2.13 citations per article on the topic of public investment capital management. Germany and Spain ranked fifth with 14 published articles. Spain is the country with the highest total number of citations with a total of 356 citations, and is also the country with the highest citation rate per article with 25.43 citations per article. Ranked sixth are Italy, Japan, and Poland with a total of 14 published articles. Spain has the lowest number of citations with 47 citations. In particular, Italy and Japan simultaneously achieved 83 citations out of a total of 12 articles, reaching 6.92 citations per article.

Table 1: 10 countries with the highest publication rates

Research position	Quantity	Number of citations	TC/Art	Total Link Strengths (TTL)
America	90	1349	14.99	3108
China	45	398	8.84	1647
Older brother	43	577	13.42	2112
Ukraine	15	32	2.13	268
South Africa	15	271	18.07	802
Virtue	14	251	17.93	758
Spain	14	356	25.43	856
IDEA	twelfth	83	6.92	610
Japan	twelfth	83	6.92	531
Poland	twelfth	35	2.92	716

Source: Author's analysis of WOS data

A co-citation cluster map was created to drill down further into the country analysis and any connections between them (Figure 1). The frequency of occurrence of representative phrases for each country determines the formation of clusters; The more frequently terms tend to appear together, the more they are colored into clusters. The size of the circles represents the number of products a country has produced, but the width of the lines indicates the level of cooperation. VOSviewer map of cross-national research collaboration between countries identifies six clusters with minimum contributions from 28 countries that have published at least five articles out of 80 countries that have published at least one article. Among them, the strongest research cooperation is between the US and the UK, with a connection strength of 874 and forming the thickest link. The second strongest link is between the US and China with a link strength of 693, demonstrating the level of strong state management interest of the US and China in investment capital management. private public. Figure 1 also shows that the countries with the earliest research on the issue of public investment capital management are Greece, the Netherlands, and Canada, with research related to the field decades ago. Recent countries with research trends are Ukraine, Poland, Türkiye, and Vietnam.

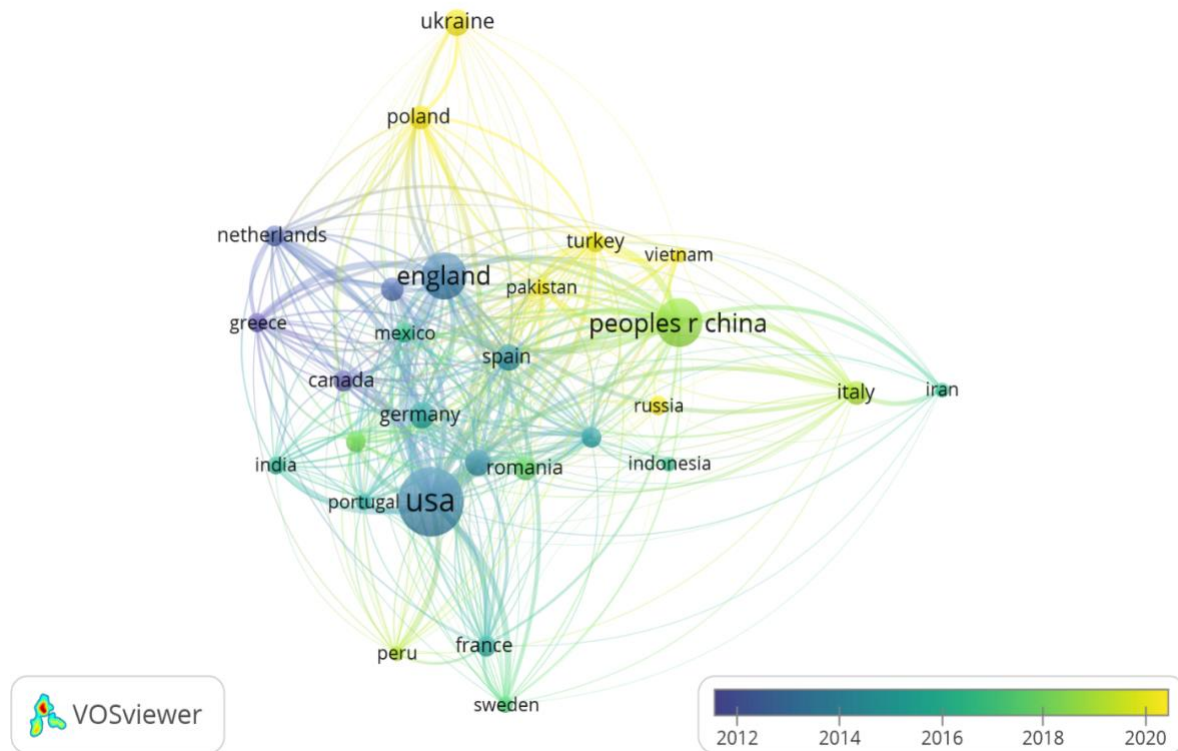


Figure 1: Visualization of country distribution

3.2. Analysis of research organization distribution

After studying the list of countries with the highest number of articles published, organizations and schools from those countries also appear prominently in the rankings of organizations published on the Web database. of Science. According to Table 3, the eight leading establishments have contributed 12% of the total 383 organizations listed in the management of public investment capital in economic infrastructure construction. The *World Bank* ranked first with a total of 11 published articles related to public investment management, with a total number of citations reaching 261 times, reaching an average of 23.72 citations per article. Ranked second is *Oxford University*, with a total of 9 articles published, with a total of 120 citations. Ranked third are *the International Monetary Fund* and *the International Food Policy Research Institute* with 5 articles published each, of which *the International Monetary Fund - IMF* has a higher citation rate per article with 25 citations per article. In fourth place are four institutions including *the University of Cape Town*; *the University of Barcelona*; *the Inter-American Development Bank* and *Kiev National University*, which the University of Cape Town - one of the leading universities in South Africa achieved the highest citation rate per article with 40 citations for each article in public investment management topic.

Table 2: Institutions with the highest number of published articles

No	Organize _		Quantity _	Quote _	TC/Art
	English _	Vietnamese _			
first	World Bank	World Bank	11	261	23.73
2	University of Oxford	Oxford University	9	120	13.33
3	International Monetary Fund (IMF)	International Monetary Fund	5	126	25,20
4	The International Food Policy Research Institute (IFPRI)	International Food Policy Research Institute	5	45	9.00
5	University of Cape Town	University of Cape Town	4	160	40.00
6	University of Barcelona	University of Barcelona	4	128	32.00
7	Inter-American Development Bank	Inter-American Development Bank	4	79	19.75
8	Kyiv National University of Trade and Economics	Kyiv National University	4	22	5.50

Source: Author's analysis of WOS data

3.3. Analysis of the distribution of leading publishing journals

In the research field of public investment capital management, we collected 9 journals with the highest number of published articles out of 383 articles collected. From Table 4, we can see that *Sustainability magazine* is the leading journal with a total of 18 related articles out of 383 articles, with a total of 151 citations. Jointly ranked 2nd are *Applied Economics* and *Financial And Credit Activity Problems Of Theory And Practice magazines*, however, *Applied Economics magazine* has significantly higher citations with a total of 147 citations. Ranked fourth is *the Journal Of Infrastructure Policy And Development magazine* with a total of 7 articles published continuously from 2018-2022. Ranked 5th are three magazines: *Economic Modeling*; *Economic Research Ekonomiska Istrazivanja* and *World Development* with 5 articles published each. Finally, there are the journals *Fiscal Studies* and *Land Use Policy* with 4 articles with 73 and 115 citations respectively for each journal. In particular, these two magazines both have a high impact index of over 7 points.

Table 3: Magazines lead the way

No	Magazine	Quantity	Quote	TC/Art	Impact Factors
first	Sustainability	18	151	8.39	4.39
2	Applied Economics	8	147	18.38	2.51
3	Financial And Credit Activity Problems Of Theory And Practice	8	2	0.25	0.33
4	Journal Of Infrastructure Policy And Development	7	20	2.86	0.76
5	Economic Modeling	5	65	13.00	5.17
6	Economic Research Ekonomiska Istrazivanja	5	29	5.80	3.08
7	World Development	5	165	33.00	2.32
8	Fiscal Studies	4	seventy-three	18.25	7.44
9	Land Use Policy	4	115	28.75	7.38

Source: Author's analysis of WOS data

3.4. Distribution of leading research

To fully understand research on public investment management issues around the world, an analysis of the distribution of the most cited articles was used. There are only 10 most cited articles out of 383 selected articles (table 5). Through the table, we can see that most of these articles focus on analyzing the process of steps in public investment capital management as well as limitations in the process, the studies also point out investment capital management. The public-private sector is effective in building economic infrastructure and has a positive impact on regional and national economic growth, through which the authors also provide relevant recommendations and policies. Focus on topics including:

Table 4: Top 10 studies with the highest citations

Author	Title	Quote	Method	Policy
Joseph Berechman et al (2006)	Empirical analysis of transportation investment and economic development at state, county, and municipal levels	105	Experiment	The study used econometric models for states, counties, and municipalities from 1990-2000. The results show that public investment in transportation models has strong spillover effects in both space and time. At the same time, in the study, the author also pointed out the positive correlation between transportation infrastructure investment and economic development.
JW Fedderke (2006)	Infrastructural investment in long-run economic growth: South Africa 1875-2001	ninety-four	Experiment	Research has shown that investment in infrastructure leads to economic growth in South Africa both directly and indirectly (the latter by increasing the marginal productivity of capital).
Zac Mills (2011)	Investing in public investment: an index of public investment efficiency	eighty-six	Experiment	The study introduces a new index that reflects the fundamental institutional environment for public investment management through four different stages: project appraisal, selection, implementation, and evaluation. Covering 71 countries, including 40 low-income countries, the index allows for comparisons across regions and country groups, as well as nuanced policy-related analysis and identification of areas of concern. specifically where reform efforts can be prioritized.
Pravakar Sahoo et al (2009)	Infrastructure development and economic growth in India	84	Experiment	The study investigates the role of infrastructure in economic growth in India during the period 1970–2006. The results show that infrastructure, labor force, and total public investment play an important role in economic growth in India. Additionally, the study also found that infrastructure development in India has a significantly positive contribution to growth compared to both private and public investments. Furthermore, causality analysis shows that there is a unidirectional causality from infrastructure development to output growth. From a policy perspective, more emphasis should be placed on public investment management to help develop infrastructure to maintain high economic growth in India.

Santanu Chatterjee (2000) et al	Unilateral capital transfers, public investment, and economic growth	71	Experiment	The study analyzes the impact of permanent and temporary bonded capital transfers on growth and macroeconomic efficiency for small economies. Thereby, the study clearly shows the contrast between traditional pure capital transfers and transfers associated with investment in public infrastructure. In particular, traditional pure transfer has no growth effect or dynamism. It varies with the size of the government as stock values and interests force dynamic adjustments. Constrained capital transfers themselves generate dynamic adjustments as public capital is accumulated in the recipient economy. This positively affects long-term growth and brings benefits, but it also depends on the initial scale of infrastructure in the economy. While purely temporary capital transfers have only a modest impact on short-term growth and lead to a permanent decline in the current account, conditional capital transfers have a significant impact on short-term growth, leading to permanent improvements in the levels of key economic variables including welfare and the current account.
Rosina Moreno and Enrique López-Bazo (2007)	Returns to local and transport infrastructure under regional spillovers	68	Experiment	The results of the study show that for the Spanish provinces, the profits from local infrastructure are much larger than the profits from transportation. At the same time, the authors point out that local infrastructure enhances economic activity in the region where it is located, while transportation and communications infrastructure can create both regional benefits, where they are located, and have positive or negative spillover effects on other areas.
Breunig, C; and Bussemeyer, M.R. (2011)	Fiscal austerity and the trade-off between public investment and social spending	sixty-seven	Experiment	The study draws two conclusions: first, tight fiscal policy differs between different types of public spending. Specifically, the study shows that discretionary spending on public investment is more severely affected by tight fiscal policy than entitlement spending (public spending on pensions and unemployment) due to different institutional and political arrangements. Second, research shows that electoral institutions influence how governments resolve these trade-offs. Discretionary spending cuts are more severe in countries with electoral systems based on proportional representation than in a majoritarian system.
Pujadas, P; Pardo-Bosch et al (2017)	MIVES multi-criteria approach for the evaluation, prioritization, and selection of public investment projects. A case study in the city of Barcelona	58	Experiment	The study used multiple methods to evaluate heterogeneous public investments. The MIVES method combines multi-criteria decision-making (MCDM) and multi-attribute utility theory (MAUT), incorporating the concept of value function (VF) and weight assignment through an analytical hierarchy process (AHP). These coefficients measure society's investment needs in each public project by considering the project's contribution to regional balance, investment scope, and assessment of the current status and values of the city. town. The MIVES multi-

				criteria framework is then used to evaluate the contribution of each investment to sustainable development.
Cavallo, E; Daude, C (2011)	Public investment in developing countries: A blessing or a curse?	55	Experiment	The author pointed out 3 bright spots in the research results. First, on average, public investment has the opposite impact on private investment. Second, the results of public investment in developing countries are reversed in countries with good institutions, openness to trade, financial commerce, and financial flows. Third, public policy should focus on the quality of public investment and investment selection, evaluation, and monitoring, rather than just quantitative targets.
Lall, SV (2006)	Infrastructure and regional growth, growth dynamics and policy relevance for India	54	Experiment	Research has shown that spending on transport and communications infrastructure is an important determinant of regional growth and that the positive benefits that accrue from these expenditures do not come solely from the investment of individual countries, but also from positive externalities from the network spending of neighboring countries. Finally, out-of-sample simulated regional growth projections reveal differences in private capital formation between less developed and developed countries.

3.5. Analysis of the distribution of leading authors

Regarding author analysis, 930 authors contributed to 383 documents selected for evaluation. According to Table 6, author *Ari I* is the author with the highest number of published articles with seven articles related to public investment management, and he is also the leading author of more than 16 related articles. to fields such as economics, society, and public management with an h-Index of 7 points. Among the 930 authors, there are 29 authors with at least 2 published articles related to public investment management, however, the table below only mentions the 9 authors with the highest number of article citations. Leading the way is *Dabla-Norris, era* with the outstanding research " *Investing in Public Investment: An Index of Public Investment Efficiency*" - Investment in Public Investment: indicators to Evaluate Public Investment Efficiency with 86 citations and Research " *The Quality of Public Investment* " - Quality of public investment with 16 citations. Next is the author from Taiwan, *Yang, shu-chun* with a total of 68 citations, and is a prominent author with more than 20 studies on public debt, and fiscal and monetary policies including the US and developing countries. Author *Lall, some v* has the highest h-Index with 15 points and owns nearly 40 publications with main topics such as public policy effectiveness, and infrastructure growth associated with economic growth. The remaining six authors are *Ali, Minhaj; Psycharis, Yannis; Haughwout, af; Schweickert, Raine; Barseghyan, Levon, and Onafowora, olugbenga* have 54 extractions respectively; 48; 27; 25; 19; 18 out of total published articles.

Table 5: Top 10 international authors with the highest number of articles

Author	Quantity	Number of citations	Total link strength	H -Index
Ari I	3	34	378	7
Dabla-Norris, era	2	102	sixty-seven	9
Yang, shu-chun s.	2	68	218	twelfth
Lall, somik v.	2	58	41	15
Ali, Minhaj	2	54	226	twelfth

Psycharis, Yannis	2	48	81	twelfth
Haughwout, af	2	27	37	7
Schweickert, Raine	2	25	186	9
Barseghyan, levon	2	19	7	ten
Onafowora, olugbenga	2	18	164	8

Source: Author's analysis of WOS data

3.6. Analyze keyword trends

Co-word analysis of keywords appearing in each article allows authors to identify research trends or prominent topics in each field. The keywords used by the study's authors provide information about the most important research topics (NJ Van Eck & Waltman, 2014). Therefore, the present study examines the co-occurrence of keywords, which may originate from the title, abstract, or author. VOSviewer checked a total of 1595 keywords appearing at least once and also pointed out the 20 most appearing keywords (≥ 5 times) listed in Table 7. Through the table, we can see that the six main keywords in the study include "Infrastructure" appearing the most 65 times, "Growth" appearing 61 times, the keyword "Economic Growth" appearing 60 times and the keywords "Public Investment" and "Investment" co-appear 50 times.

Table 7: Keywords with the highest frequency

No	Keywords	Keyword	In turn	TLS	No	Keywords	Keyword	In turn	TLS
first	Infrastructure		65	509	11	Performance		24	228
2	Growth		sixty-one	511	twelfth	Expenditure		21	195
3	Economic Growth		60	611	13	Private investment		19	162
4	Public Investment		50	421	14	Public infrastructure		19	143
5	Investment		50	421	15	Management		17	140
6	Productivity		36	288	16	Public Debt		17	128
7	Impact		thirty-first	298	17	China		15	131
8	Policy		27	239	18	Africa		15	125
9	Model		26	231	19	Fiscal Policy		26	159
ten	Cointegration		25	228	20	Trade		twelfth	96

Source: Author's analysis of WOS data

Table 8 presents a comprehensive summary of the concept network by identifying five distinct clusters, each represented by a term and a corresponding number of keywords, characterized by a set of nodes and links.

Table 8: Clusters are identified in the keyword network

No	Name of cluster	Vietnamese name	Number of keywords	Featured keywords related to the cluster	
				English	Vietnamese
first	Growth	Growth	22	Economy; Economic development; Finance; Innovation; Impacts; Infrastructure investment; Management; Decision Making; Poverty reduction; Public investments; Sustainability; Sustainable development; Africa; China; Uganda	Economy; Economic development; Finance; Innovation; Impact; Infrastructure investment; Manage ; Decision; Hunger eradication and poverty reduction; Government's Invest; Sustainability; Sustainable development ; Africa; China; Uganda
2	Impact	Affect	21	Challenges; Corruption; Determinants; FDI; Governance; Infrastructure development; Transport Infrastructure; State; Policy; Politics; Public Debt' Public Finance; State	Challenge; Corruption; Determining factors; FDI; Administration; Infrastructure development; Transportation infrastructure; Status; Policy; Politics; Public debt; Public finance;
3	Cointegration	Co-linkage	17	Private investment; Consumption; Demand; Crowding out; Economic Growth; Financial Development; Projects; Empirical evidence; India; Pakistan	Private investment; Consumption; Demand; Overwhelms; Economic growth; Financial development; Project; Empirical evidence; India; Pakistan
4	Public Infrastructure	The infrastructure	14	Infrastructure; Poverty; Costs Productivity; Public expenditure; Returns; Roads; Trade; Spillovers	The infrastructure; Poor; Productivity Cost; Public expenditure; Turn around; Traffic road; Commerce ; Spillover impact
5	Investment	Invest	9	Construction; Expenditure; Investments; Performance; Public sector; Quality; Output; Productivity Growth; Public infrastructure	Construction; Expense; Invest; Efficiency; Public area; Quality ; Output; Increase productivity; Public infrastructure;
6	Fiscal Policy	Fiscal policy	6	Debt; Government; Model; Public Investment	In debt; Government; Model; Government's Invest

Source: Author's analysis of WOS data

Cluster 1 – Growth: The ability to grow is associated with the effectiveness of public investment capital management in building economic infrastructure. The first cluster includes the 22 most pervasive keywords. In which the keyword "Growth" appears on 61 out of 383 articles and the total link power is 235 to other keywords on the map cluster. This is strong evidence of the relationship of public investment management to the effectiveness of the region's economic infrastructure as well as the indirect growth potential for the local economy. point for infrastructure investment. It is expressed by keywords such as " *Economy*"; "*Economic development*"; "*Finance*"; "*Innovation*"; "*Impact*"; "*Infrastructure investment*;" "*Management*"; "*Decision* "; Besides the issue of growth, sustainable growth is also a keyword mentioned a lot in the cluster, through keywords such as " *Sustainability*"; "*Sustainable development* " each word appeared more than 10 times in a total of 383 selected articles. This shows the level of concern of the authors for maintaining sustainable growth

for the countries and regions studied. Besides, three countries appearing in this growth cluster including China; South Africa, and Uganda are typical examples of the level of government attention to public investment management in economic infrastructure construction.

Cluster 2 – Impact: Impact of policies on public investment capital management in economic infrastructure construction. The second prominent cluster is represented by 21 keywords. The map of this cluster has a close connection with state policies, existing challenges, and impact factors, thereby analyzing the influence of policies on investment capital management issues. The public sector still has many shortcomings, in the typical keyword that appears in those challenges is *Corruption*. Reality also shows that the work of preventing and fighting against corrupt practices in the management, allocation, and use of investment capital originating from the state budget has not had many positive changes, still, many shortcomings are leading to low efficiency of public investment management. Besides, policies are also mentioned quite a lot with keywords such as Public Debt, Public Finance; Policy; The State and Government aim to emphasize the role of state policies on public capital management. Author Kyunghoon Kim (2021) analyzed the performance and appropriateness of the Indonesian government's institutional reforms to stimulate economic infrastructure construction after the 1997 Asian economic crisis. In addition to the results achieved in improving the efficiency of public investment capital management as well as attracting private investment, the author emphasized that incomplete institutional reform is the cause of infrastructure construction. slow growth in Indonesia, and the author also argues that group interests as well as passive development policies lead to conflicts between the state and businesses and the loss of public investment capital is the main cause of the slow growth in Indonesia. poor performance of infrastructure construction investment.

Cluster 3 – Cointegration: Balanced cointegration between Public Investment and Private Investment. With 17 keywords, cluster 3 refers to issues of balance between public and private investment. With typical keywords such as "Private investment"; "Consumption"; "Demand"; "Economic growth"; "Financial development"; "Project". It refers to countries with an imbalance between public and private investment such as India and Pakistan. As the authors Easterly and Rebelo (1993), and Everhart and Sumlinski (2000) have confirmed the hypothesis of crowding out of private investment by public investment in general. In addition, author To Trung Thanh (2012) commented on the market between public investment and private investment in the Vietnamese market: on average, after a decade, 1% of initial public investment capital increases. will cause private investment to shrink by 0.48%. At the same time, the impact on GDP of public investment is low compared to the impact of private investment. Author Nguyen Thi Canh (2018) also mentioned that public investment in Vietnam has an impact on economic growth according to an inverted U-shaped model like that of Barro (1990), with the positive impact mainly appearing since 2018. Meanwhile, investment from the private sector, state-owned enterprises, and FDI has a positive impact on short-term economic growth. Besides, the author also emphasizes the phenomenon of public investment overwhelming private investment in the short term. However, Ramirez and Nazmi (2003) and Argimón et al. (1997) also argue that public investment can stimulate private investment when the government invests specifically in infrastructure for this economy, such as building new highways or increasing electricity production by building new power plants. Therefore, the best measure is to balance public investment and private investment to avoid an increase in government spending financed by public debt that could negatively impact private sector investment. private investment, as well as promoting private investment in the economic structure as a key to long-term growth.

Cluster 4 – Public Infrastructure: Current status of public infrastructure. Includes 14 keywords representing the current state of public infrastructure investment in public investment management. Among them, the keyword " *Productivity* " stands out, appearing 36 times, and is also the keyword with the strongest influence and link level in the cluster with a total link power of 165 times. Shows the authors' great concern about the issue of productivity and efficiency of public investment management with the current state of public infrastructure. Along with that, author Hiroaki Miyamoto (2020) also emphasizes that not all new physical infrastructure has the same productive impact on the economy. Even where physical infrastructure is accumulated, its productivity can be eroded by poor project selection, and if the infrastructure created contributes little to growth. Therefore, there must be a good public infrastructure investment management mechanism that can lead to better infrastructure quality, with more beneficial impacts in the long term.

Cluster 5 – Investment: Effectiveness of investment policies. With 9 keywords focusing on efficiency issues in the investment management process of projects with typical keywords such as "Construction"; "Overwhelms"; "Expense"; "Invest"; "Efficiency"; "Public area"; "Quality". In particular, the keyword "Performance" appears 24 times, emphasizing the issue of management quality of projects as well as the effectiveness of invested and built infrastructure projects. As author Arnt O. Hopland (2023), mentioned, the role of public facilities in providing public services is very important. At the same time, the author also emphasizes that the current empirical literature lacks assessments related to the condition of public facilities and their impact on public services.

Cluster 6 - Fiscal Policy: Fiscal policy. The final keyword phrase includes 9 keywords, referring to the importance of public spending as a tool in the fiscal policy of running an economy. In particular, the key phrase Fiscal Policy was mentioned 26 times, demonstrating the importance of timely policy measures from the government to deal with rising unemployment and property damage as a means to stimulate recovery. the economy after the Covid 19 pandemic (Craig Langston, 2022). Keeping people employed through nation-building projects especially related to transport infrastructure and supply chains is a key objective and has the potential to provide assets to support capacity. long-term production. However, the author also emphasizes the importance of the quality of public infrastructure being appropriate for projects to progress, and the government must put in place policies to manage the realization of long-term benefits and Important resources are not wasted through potential future liabilities. In addition, author Makohon, V (2021), also emphasizes the development of regulations on the institutional basis for fiscal policy planning based on the need to regulate the budget by the development conditions of the country. Priority directions of budget policy in the context of economic transformation are identified, specifically strengthening the investment and innovation budget component, improving the structure of tax revenues, maintaining the level of safety of public debt and budget deficit as well as improving the quality of public investment management.

4. Conclusion

This study has reviewed the literature on the topic of public investment capital management in economic infrastructure construction based on the os database - a reliable basis in research. The results obtained from the literature review show that this is a topic receiving great attention among researchers and policymakers. There are two new research trends that the author noticed, one is to delve into theoretical research on public investment capital management, thereby making policy recommendations for governments; and the second is to research the management of public investment capital in large projects in specific countries, thereby providing approval, implementation and strict control of public investment capital.

Funding: This research received no funding.

Conflict of Interest: The author declares no conflict of interest.

Informed Consent Statement/Ethics Approval: Not applicable.

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