Public--Private Partnership in Public Transportation Sector: Review Literature

Susanti*, Florentina Ratih Wulandari, and Mani Festati Broto
Universitas Terbuka, Indonesia

Abstract.
This study aimed to analyze the bibliographic characteristics and the content of articles on public–private partnership in public transportation sector published in journals indexed in Scopus, PoP, etc. and written by global researchers from between 1985 and 2024. Many countries are trying to improve their infrastructure so that the distribution, production, and the community economy can develop and run in a stable manner. Development of transportation facilities is also an effort by many countries to reach areas where it is difficult to obtain access to development and other areas.

Keywords: public–private partnership, public transportation

1. Introduction

The increasing need for speed and easy access for the public is a development target for many countries in the world [1]. Many countries are trying to improve their infrastructure so that distribution, production, and the community economy run stably and develop. Development of transportation facilities is also an effort by many countries to reach areas where it is difficult to obtain access to development and other areas [2]. Many countries are trying to improve their infrastructure so that distribution, production, and the community economy run stably and develop. Development of transportation facilities is also an effort by many countries to reach areas where it is difficult to obtain access to development and other areas.

2. Methods

Researchers took data at www.scopus.com then used three keywords, namely: public-private, partnership, public transportation and found 43 documents originating from articles, conference papers, book chapters, reviews and conference reviews. From
these 43 documents, the author then processed the data using the VOSviewer 1.6.19 application and downloaded statistical data from the Scopus website directly.

3. Results and Discussion

The number of public-private partnership research from 1985 – 2024 (Picture 1) The amount of (keyword) publications in 11 subject areas (engineering, business management and accounting, computer sciences, decision sciences, Economics, Econometrics and Finance, art and humanities, energy, and multidisciplinary) almost Fourthly globally shows a positive trend. Publication data from 43 documents shows that many researchers studied the theme of public private partnership in public transportation in 2019 with a total of 7 publications, whereas only 2 publications were published per year to study in more depth about public private partnership in public transportation which can be seen from the following table.

![Figure 1: The trend of public private partnership at public transportation publications from 1985 to 2024 in the Scopus database.](image)

Content analysis on public private partnership at public transportation publication

From the public private partnership at public transportation publications, we sorted by relevance and undertook the content analysis. Next, we do co-occurrence analysis with VOSviewer, with ‘all keyword’ analysis unit and counting method ‘full counting.’ We limited the frequency of keyword occurrences 1 times, so out of 396 keywords,
VOSviewer found 396 keywords met the threshold. The results of the analysis presented in Fig. 2 below.

**Figure 2:** Network visualization from 43 articles published globally in the scopus database from 1985 to 2024.

The results of Scopus data processing via VOSviewer show that the most dominant keyword used by researchers is public transportation with 285 uses. After that, the keywords that appear are public private partnerships (191), transportation (180) are the top three keywords that appear most frequently. Moreover, we found five clusters from this analysis. The first cluster represented in red consists of public private partnerships keywords items with the keyword ‘public private partnerships’ being the most common keywords marked by a larger node size than other nodes.

The results of Vos Viewer data processing show that trend themes or research keywords regarding public private partnerships at public transportation began to be widely discussed starting in 2005, with themes such as express bus services, deficits, contracts and financing, air traffic control. Research and publications increasingly developed in 2010 with the theme investment costs, fresh air. Then in 2015 the topic of publications about public transportation, urban transportation and smart cities emerged. However, in 2020 the research and publication theme shifted to integrated public transport, mobility-as-a-service, electronic toll collection system, which can be seen from Figure 3.

An overview of the development of research publications on public private partnerships at public transportation from Figure 4 in the yellow picture shows 2 countries that appear in publications such as Russia and Canada. This is a case of public private
partnerships at public transportation in developed countries, apart from the fact that there is more discussion about public transportation made into the main discussion material.
Many authors are involved in writing about public private partnerships at public transportation. This can be seen from Table 5 which shows Kikrs, Lahti, Mallets, Nummelin, Nystedt a, Sepponen, Teerimo, Vassalo and Virtanen who have published 3 documents discussing public private partnerships at public transportation. Apart from that, many other authors discuss public private partnerships at public transportation.

**Figure 5:** Document by author dalam public privat partnership at public transportation publication.

**Figure 6:** Document by country that public privat partnership at public transportation publication.
Figure 7: Document by subject area about public privat partnership at public transportation.

Figure 8: document by affiliation who publishes about public privat partnership at public transportation So the institution that publishes a lot about public private partnerships at public transportation is the University of California, apart from that there is the Universidad Politecnica de Madrid, the University of Texas at Austin, Beijing University of Technology and others.

The country that has published the most about public private partnerships at public transportation is the United States with a total of 17 publications, apart from that, Spain has also published 3 publications, after that there are China, France, India, Indonesia and Sweden, each of which has published 2 documents, after that there is Australia, Finland and Hong Kong with 1 document.
It turns out that publications about public private partnerships at public transportation are more widely published by engineering at 28%, then in social sciences there are also many studies about 30%.

4. Conclusion

Searching for publications about Public-private partnership public transportation is something interesting to study in more depth, starting from the small number of publications per year, the themes that emerge are more dominant about public transportation and social sciences are areas that study a lot about Public-private partnership public transportation. Other researchers should make this review explore more deeply related to public-private partnership public transportation

References