

Role of Public Private Partnership in Bus Terminals: A Case Study of Punjab

K. K. Sharma¹, Sushendra Kumar Misra², Arun Kumar Singla³

1. Associate Professor, A. S. College, Khanna.

2. Registrar and Head CCE, Dr. BR Ambedkar National Institute of Technology, Jalandhar.
(Email: sushendramisra@gmail.com, Cell 9478098010)

3. Assistant Professor, A. S. College, Khanna.

ABSTRACT

The “Academic Discourses” on “Public and Private” partnerships in “Infrastructure Development” often involve the issues of “User’s Perceptions and “Employee Satisfaction” as two different ideologies work together. Multi party (private builders, developers, employees and users) work arrangements in infrastructure development owe a history of conflict and anxieties across the existing literature. Commuter utilizing PPP run bus terminals were found to be more satisfied vis-a-vis the commuters across Non-PPP run organizations in transport sectors across Punjab. With regard to bus terminals, the “Maintenance” of service levels matter and this factor was observed to dominate and exhibit maximum possible variance. The access coverage and volume capability needs to be retained and enhanced in order to reap the benefits of public private mode of bus terminal operations.

Key Words: PPP, Infrastructure, Punjab, India, Factor Analysis, SEM.

I. INTRODUCTION

Sound infrastructure has been recognized world over as most effective stimulator for industrial & economic development of any country. The socio-economic development of any country is measured by the status of its infrastructure and allied services. It is therefore very important not only to build but also maintain and continuously upgrade appropriate level of infrastructure in the country. Broadly, infrastructure can be defined in terms of physical and social infrastructure; where physical infrastructure facilitates growth; social infrastructure has a direct impact on the quality of life. Infrastructure is a wide notion that is connected to all facets of the economy and human life. The term infrastructure has been used since 1927 to refer collectively to the roads, bridges, rail lines and similar public works that are required for an industrial economy to function. Transport communications, sewage, water and electrical systems all form part of the infrastructure. These systems tend to be investments at high cost. In general, it is location-specific infrastructure that cannot be shifted from location to location. However, the term

infrastructure is also used to refer to the basic architecture of any system; mechanical, social, political or cultural. The expanded definition of infrastructure includes transport (e.g. roads, railways, ports and airports), public utilities (e.g. electricity and water supply), public services (e.g. fire service, flood protection, police), national services (e.g. the defence, monetary and postal systems, and the legal and regulatory system) along with soft infrastructure, which denotes institutions that maintain the health and cultural standards of the population (e.g. public education, health and social welfare).

1. Types of Infrastructure

On the basis of the above background, following are the key areas of infrastructure development which have been categorized under physical and social infrastructure:

2. Physical Infrastructure

Physical infrastructure refers to the basic physical structures required for an economy to function and survive like Civil Aviation, Industrial Infrastructure (Special Economic Zones and Industrial Parks), Ports, Posts, Power, Railways, Roads & Over Bridges and Telecommunication.

3. Social Infrastructure

Social infrastructure is foundational services and structures that support the quality of life of a nation, region, city or neighborhood. This includes any infrastructure that goes beyond basic economic functions to make a community an appealing place to live like Education, Health & Family Welfare, Tourism & Culture, Urban Infrastructure- Urban Public Transport, Urban Drinking Water & Waste, Solid Waste Management, Urban Energy Management and Urban Environment.

4. Present Scenario & Initiatives

We are currently facing a lot of infrastructure provisioning issues in the public sector. The way in which infrastructure was developed and provided through the public sector has caused to many issues i.e. inefficiency of operations, inadequate maintenance, financial inefficiency, lack of responses to user's demands, neglect of the environment etc. These concerns have also been shared by the World Bank in the World Development Report on infrastructure as the major factors hampering the provision of infrastructure services in India.

While Governments have been essentially the primary providers of infrastructure services for most of 20th century, it is often forgotten that the early development of railways and toll roads in many developed countries was due to the initiative taken by private entrepreneurs. Infrastructure development in Punjab with the help of private participation is commendable. Punjab has been divided into three regions i.e. Malwa, Majha and Doaba. There are twenty two districts in Punjab. Out of twenty two districts, thirteen districts are covered under Malwa region, five districts are covered under Doaba region and four districts are covered under Majha region. In Punjab 11 bus terminals and 9 industrial training institutes are working with the help of private participation. Out of the 11 bus terminals, five are under Malwa region, three are Majha region

and three are under Doaba region. Similarly in case of industrial training institutes, out of 9, four are under Malwa region, two are Majha region and three are under Doaba region. Even in India, private participation in telecommunication is not a phenomenon of the nineties- private companies were the major provider of telecommunication services till these were nationalized in 1943. Throughout the World, the private sector remained active in provision and operation of various infrastructure sectors though this has been generally overshadowed by the dominance of the public sector. Inefficiency of operations and inadequate maintenance can be easily witnessed in the Indian context as wastes in agriculture products comes to 30% simply because of poor infrastructure in terms of handling, poor storage and poor transportation.

However, there are numerous challenges in infrastructure development today. These are project structuring, risk assessment & management, project financing, project management and regulatory and institutional framework. It calls for evolving businesslike approach to manage infrastructure, promote competition, involve stakeholders, put in place public private partnership and create regulatory institutions resulting in improving asset creation efficiency, asset management efficiency and service delivery efficiency to develop infrastructure. The role of Government would be that of regulator rather than controller of ensuring fair play and level playing ground for all stakeholders.

5. Public Private Partnership

There is no single internationally accepted definition of what PPP is (World Bank, 2006). The PPP is defined as the transfer of investment projects traditionally carried out or financed by the public sector to the private sector (IMF, 2004). The PPP is described as the transfer of investment projects traditionally carried out or funded by the public sector to the private sector. The PPP is sometimes referred to as a joint venture that finances and operates a government service or private business venture through a public partnership and one or more private sector organizations. Typically, in order to construct and retain the asset, a private sector consortium creates a special company called special purpose vehicle (SPV).

Thus, PPP combines private-sector capital growth and sometimes public-sector capital to enhance public-sector facilities or asset management (Michael, 2001). The PPP may encompass the entire spectrum of solutions from personal involvement to pure non-recourse project financing through service contracting and revenue sharing partnership arrangement, while it may sometimes include only a small variety of project type.

6. Public Private Partnership (PPP) – Definition

According to World Bank, “Public Private Partnership is a cooperative venture between public and private sector, built on the expertise of each partner that best meets clearly defined public needs through common resources, shared risks and rewards.”

According to European Commission, “Public Private Partnership is an agreement between private sector and public sector who have agreed to work cooperatively to achieve specific goals, with shared authority and responsibility, joint investment of resources and shared risk-taking.”

According to United Nations, “Public Private Partnership refers to innovative methods used by the public sector to contract with the private sector who brings capital and its ability to deliver projects on time and within budget, while the public sector retains the responsibility to provide these services to the public in a way that benefits the public and delivers economic development and improvement in the quality of life.”

In the Indian context, the term PPP is used very loosely while at the international arena, the PPP is adopted for developing public assets in various forms as explained in the above Table. According to the Ministry of Finance, Government of India, the PPP project means a project based on a contract or concession agreement, government or statutory entity on the one side and private sector company on the other side, for delivering infrastructure service on payment of user charges. The Planning Commission of India has defined PPP as —mode of implementing government programmes/schemes in partnership with the private sector. It provides an opportunity for private sector partnership in financing, designing, construction, operation and maintenance of public sector programmes and projects. In addition, Greenfield Investment in the infrastructure development has also been given more encouragement in India.

II. REVIEW OF LITERATURE

A research (Osei, 2017) observed the incidence of the stakeholder’s perceptions about working with public sector and that the critical success factors were identified as legal dispute resolution mechanism, service delivery, timely rectification of reported operational problems, stakeholder consultation (Hedman, 2008), streamlining of approval process and effective changes of shareholdings in private consortium. The study across Ghanaian project managers (Osei, 2017) revealed that mindsets often clash and the public office bearer’s mindset for private sector participation needs change and review.

The research on PPP (Rashid, 2010) in the education sector has been focusing on school education as well as university education. A recent research (Angelis, 2014) explored the relationship between improvements in quality vis-a-vis introduction of public private arrangements and observed the incidence of substantial improvements (Muralidharan, 2006) in coverage, affiliations as well as acceptance along with marked improvement in skill levels of the incumbent students.

PPP arrangements have been observed to bring together contrasting mindsets across public and private sectors. Employee based perceptions of job satisfaction (Gupta, 2018) have been observed to suffer in case of such Public Private Partnerships. The employee based notions of satisfaction have been dismal and have been observed to be subject to values that are being promoted across the organizational cultures. A study (Buelens, 2007) on differences in work motivations in public and private organizations (Kjeldsen, 2018) revealed that mindset based

differences eventually prevail and the private sector employees (Desmidt, 2018) were observed to be more satisfied than the ones in public sector enterprises.

1. Objectives of the Study

- (1) To study the user's satisfaction level in Public Private Partnership bus terminals in Punjab.
- (2) To study the employee's satisfaction level in Public Private Partnership bus terminals in Punjab.
- (3) To provide suggestions & recommendations on the basis of the finding of the study.

III. RESEARCH METHODOLOGY

Reliability evaluation: Bus Terminals

The "Respondent" generated data was assessed for internal homogeneity with aid of reliability assessment tool in SPSS. Cronbach Alpha was leveraged to ascertain the respective internal data driven consistency amongst the responses as collected with aid of likert based questionnaire. The loading sub scale items were assessed for consistency examination across scales "User's Perceptions" with regard to bus terminals, and "Perceptions with regard to Employee Satisfaction" across Bus Terminals. The responses highlighted the satisfactory state of internal consistency amongst the responses.

With regard to "Bus Terminals", the cronbach was calculated with regard to two aspects: user and employee satisfaction. The purpose was to ascertain the responses and their respective internal consistency. With regard to commuters or the users of the bus terminals in Punjab, these responses were evident.

IV. DATA ANALYSIS AND DISCUSSION

User perspective

With regard to "User's Perceptions Regarding Bus Terminal", the cronbach was observed to be 0.908 which is dominantly in satisfactory range of 0.50 to 0.99. The correlation assessment as part of cronbach alpha examination ascertains the presence of cross item impact. This is tantamount to observing that the users (daily commuters) observed the reliability index of 0.908 signifying satisfactory achievement of internal consistency of the responses.

Table 1: Cronbach Alpha for commuters: Bus terminals in PPP

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
.908	.912	49

Employee Perceptions

With regard to employee satisfaction across bus terminals, the cronbach was observed to be 0.924 which is dominantly in satisfactory range of 0.50 to 0.99. The correlation assessment as part of cronbach alpha examination ascertains the presence of cross item impact. This is tantamount to observing that the employees observed the reliability index of 0.924 signifying satisfactory achievement of internal consistency of the responses.

Table 2: Cron Bach Alpha for Employees: Bus terminals in PPP

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
.924	.925	56

Structural Equation Modeling

The structural equation modeling assists in determination of the linkages across the input and the output variables. The regression weights as achieved across the AMOS output help interpret the pattern of relationships across the constituent variables in current research activity. The structural equation modeling (Nachtigall, 2003) is used to examine the pattern of relationships that possibly exist amongst the factors. The literature reflects on the presence of structural parameters across hypothesized underlying model. The observation of structural relationships between the latent variable is being observed to lead to a system of regression equations that pictorially depict the regressive dependencies across the factors as assumed for the study. The path diagrams in turn represent the relationships that possibly exist amongst the latent variables and their observable indicators. The rationale for use of SEM is essential in this research as this will ascertain the determination of the linkages that exist across all the three aspects of the topic as assumed for research and analysis. The research based analysis points towards the incidence of the impact across factors concerned.

With regard to perceptions of users across Bus Terminals in PPP and Non-PPP mode, these structural equation modeling based outcomes were observed:

Path Diagram				Estimate	S.E.	C.R.	P	Label
H7	Bus Terminal Performance	<---	Volume Capability	.341	.085	4.028	***	par_32

H8	Bus Terminal Performance	<---	Safety	.100	.060	1.656	.098	par_33
H4	Bus Terminal Performance	<---	Tidiness	.099	.169	.586	.558	par_34
H5	Bus Terminal Performance	<---	Maintenance Levels	.061	.053	1.150	.250	par_35
H6	Bus Terminal Performance	<---	Quality of Personnel	.204	.072	2.839	.005	par_36
H1	Bus Terminal Performance	<---	Affordability	.091	.077	1.175	.240	par_37
H3	Bus Terminal Performance	<---	Consistency	.165	.069	2.397	.017	par_38
H2	Bus Terminal Performance	<---	Access	.141	.070	2.015	.044	par_40

In simpler terms, the user's perceptions of "Volume" across current bus terminals; was observed to lead to 0.341 times increase in perceptions of constructive performance of bus terminals. The user's sense of "Safety" while operation was observed to lead to 0.1 times increase in perceptions of constructive performance of bus terminals. The user's perceptions of "Tidiness" across current bus terminals; was observed to lead to 0.099 times increase in perceptions of constructive performance of bus terminals. The user's sense of "Maintenance Levels" was observed to lead to 0.61 times increase in perceptions of constructive performance of bus terminals. The user's sense of "Quality of Personnel" was observed to lead to 0.204 times increase in perceptions of constructive performance of bus terminals. The user's sense of "Affordability" while operation was observed to lead to 0.091 times increase in perceptions of constructive performance of bus terminals. The user's sense of "Consistency" while operation was observed to lead to 0.165 times increase in perceptions of constructive performance of bus terminals. The user's sense of "Access" while operation was observed to lead to 0.141 times increase in perceptions of constructive performance of bus terminals. The hypotheses were hence vindicated on the basis of cross –factor path based relationships as mentioned here:

H	Hypothesis Statement	Est	Outcome
H7	There is significant impact of perceptions of "Volume Capability" on "Bus Terminal Performance"	.341	Supported
H8	There is significant impact of perceptions of	.100	Supported

“Safety” on “Bus Terminal Performance”		
H4	There is significant impact of perceptions of “Tidiness” on “Bus Terminal Performance”	Supported
H5	There is significant impact of perceptions of “Maintenance Levels” on “Bus Terminal Performance”	Supported
H6	There is significant impact of perceptions of “Quality of Personnel” on “Bus Terminal Performance”	Supported
H1	There is significant impact of perceptions of “Affordability” on “Bus Terminal Performance”	Supported
H3	There is significant impact of perceptions of “Consistency” on “Bus Terminal Performance”	Supported
H2	There is significant impact of perceptions of “Access” on “Bus Terminal Performance”	Supported

With regard to perceptions of employees across Bus Terminals in PPP and Non-PPP mode, these structural equation modeling based outcomes were observed:

Path Diagram				Estimate	S.E.	C.R.	P	Label
H12	Stability	<---	Access to departmental Resources	0.179	0.046	3.914	***	par_39
H11	Stability	<---	Relationship with supervisor	0.116	0.031	3.718	***	par_40
H16	Employee Satisfaction	<---	Pay	0.249	0.085	2.942	0.003	par_30
H13	Employee Satisfaction	<---	Stability	0.316	0.299	1.056	0.291	par_31
H14	Employee Satisfaction	<---	Fair Interpersonal Treatment	0.100	0.063	0.165	0.869	par_32
H9	Employee Satisfaction	<---	Management Skills	0.432	0.107	4.049	***	par_33
H10	Employee Satisfaction	<---	Job Conditions	0.206	0.087	2.385	0.017	par_34

H15	Employee Satisfaction	<---	Co-Workers	0.138	0.076	1.811	0.07	par_36
------------	-----------------------	------	------------	-------	-------	-------	------	--------

Similarly in case of “Employee Satisfaction” dimensions, the following outcomes were observed. The structural equation modeling revealed the incidence of the extensive cross factor relationships. The employee’s “Access to Departmental Resources” was observed to lead to 0.179 times increase in prospects for “Stability of Professional Development”. The employee based perceptions of “Relationships with Supervisor” was observed to lead to 0.116 times increase in prospects for “Stability of Professional Development”. In similar manner, the employee perceptions across infrastructure projects executing companies, opinioned that “Pay” based expectations seem to lead to 0.249 times increase in sense of “Employee Satisfaction”. The employee based perceptions of “Stability of Professional Development” were observed to lead to 0.316 times increase in sense of “Employee Satisfaction”. Similarly the employee’s sense of “Fair Interpersonal” treatment was observed to lead to 0.100 times increase in sense of “Employee Satisfaction”. The respective employee based perceptions of management skills was observed to lead to 0.432 times increase in their sense of employee satisfaction. In respective manner, the employee based perceptions of job conditions was observed to lead to 0.206 times increase in sense of employee satisfaction. The employee based perceptions regarding co-workers was observed to lead to 0.138 times increase in their sense of employee satisfaction.

The hypotheses were hence vindicated on the basis of cross –factor path based relationships as mentioned here:

H	Hypothesis Statement	Est	Outcome
H12	There is significant impact of perceptions of “Access to Departmental Resource” on “Stability”	0.179	Supported
H9	There is significant impact of perceptions of “Relationship with Supervisor” on “Stability”	0.116	Supported
H16	There is significant impact of perceptions of “Pay” on “Employee Satisfaction”	0.249	Supported
H13	There is significant impact of perceptions of “Stability” on “Employee Satisfaction”	0.316	Supported
H14	There is significant impact of perceptions of “Fair Interpersonal Treatment” on “Employee Satisfaction”	0.100	Supported
H10	There is significant impact of perceptions of “Management Skills” on “Employee	0.432	Supported

Satisfaction”			
H11	There is significant impact of perceptions of “Job Conditions” on “Employee Satisfaction”	0.206	Supported
H15	There is significant impact of perceptions of “Co-Workers” on “Employee Satisfaction”	0.138	Supported

V. CONCLUSION

- Commuter/user satisfaction is key to sustenance of revenues and the overall success of PPP infrastructure development in Punjab. In order to realize the positive outcome from such initiatives, user friendliness and service provision quotient needs to be emphasized heavily.
- The PPP arrangements seem to facilitate early mutual satisfaction amongst the users and the developers alike. Yet stakeholder engagement across the development and operations phase is essential to ensure consistent service provision.
- Cross monitoring is essential to ensure timely delivery of infrastructure services in social and economic sectors.
- Commuter/user ease and convenience and affordability needs to be accessed and maintained.
- Employee satisfaction is crucial for sustained provision of services.
- Commuter utilizing PPP run bus terminals were found to be more satisfied vis-a-vis the commuters across Non-PPP run organizations in transport sectors across Punjab. With regard to bus terminals, the “Maintenance” of service levels matter and this factor was observed to dominate and exhibit maximum possible variance. The access coverage and volume capability needs to be retained and enhanced in order to reap the benefits of public private mode of bus terminal operations.

REFERENCES

- **Aarseth, U. (2016)** “PPP in Public Schools as Means for Value Creation for User and Owner” *Procedia*, 226, 399-404.
- **Angelis. (2014)** “Quality in Indian Education: Public-Private Partnerships and Grant -in-aid Schools”, *Educate*, 16-19.
- **Batarce, M. (2015)** “Evaluation of Passenger Comfort in Bus Rapid Transit Systems”, *Technical Note: IDB*, 34-39.
- **Birago, M. (2016)** “Level of Service Delivery of Public Transport and Mode Choice in Accra,Ghana”,*Transportation Research*, 4-8.

- **Brusel. (2018)** “Ridership and the Built-form Indicators: A study from Ahmedabad Janmarg Bus Rapid Transit System(BRTS)”, *Urban Science*, 2, 4-9.
- **Campos, M. (2018)** “A Performance Model for Public-Private Partnerships:The Authorised Economic Operator”, *RAUSP Management Journal*, 53(1), 272-79.
- **Choi, C. (2010)** “Risk Perception Analysis: Participaiton in China's Water PPP Markets”, *Interational Journal of Project Management*, 28(6), 581-84.
- **Chotia, V. (2017)** “Public Infrastructure Investment, Economic Growth and Fiscal Sustainability in India: An Empirical Analysis, A Ph. D thesis, Pilani: Birla Institute of Technology and Science.
- **Coccia, I. (2018)** “Rewards in Public Adminsitration: A Proposed Classification”, *Journal of Society and Administrative Sciences*, 5(2), 69-74.
- **Desmidt. (2018)** “Strategic Decision Quality in Public Organizations: An Information Processing Perspective”, *Adminsitration and Society*, 4-8.
- **Doloi, S. (2011)** “Analysing Factors Affecting Delays in Indian Construction Projects”, *International Journal of Project Management*, 30, 481-84.
- **Gupta, S. (2018)** “Currnet Scenario of Public Private Partnerships in India”, *International Journal of Engineering and Technology*, 5-6.
- **Hedman, L. (2008)** “Business Models for Public Private Partnerships”, *Collaboration and Knowledge Economy*, 7-9.
- **Heneweale, R. (2013)** “De Marginalizng the Public in PPP Projects Through Multi-Stakeholder Management”, *Journal of Financial Management of Property and Construction*, 18(3), 212-13.
- **Joshi, S. (2014)** “Financial Problems of Developing Urban Infrastructure in India – Review And Suggestions” *Journal of Commerce & Management Thought*, 5(2): 314-324.
- **Kapil, A. (2009)** “Role of Infrastructure in Economic Development in India: An Inter State Analysis”, A Ph. D thesis, Department of Economics, Amritsar: Guru Nanak Dev University.
- **Khathibi, A. (2014)** “Reforming health care sector in Sri Lanka through Public private partnership Binushi Himalika Narangoda”, *International Journal of Applied Sciences and Engineering Research*, 3(5): 979-993.
- **Khurana, R.K., Venkateswarlu, J.S. and Jakhar, S.S. (2011)** “Treatments of Public-Private Partnerships in National Accounts”, *The Journal of Income and Wealth*, 33(1).

- **Kjeldsen, H. (2018)** “Sector Differences in the Public Sector Service Motivation-Job Satisfaction Relationship: Exploring the Role of Organizational Characteristics” *Review of Public Personnel Administration*, 38(1), 26-34.
- **Kyei, C. (2017)** “Implementation Constraints in Public Private Partnership: Empirical Comparison between Developing and Developed Economies”, *Journal of facilities management*, 93-99.
- **Mahajan, S.K. (2013)** “Appraisal of Policies in Improving Education Through Public-Private Partnership: A Case Study”, *Public Affairs and Governance*, 1(2): 61-77.
- **Mahajan, V., Sahai, P. and Pasrija, S. (2007)** “Financing of Rural Infrastructure”, *India Infrastructure Report*: 47-74.
- **Mahalingam. (2010)** “PPP Experiences in Indian Cities: Barriers, Enablers and the Way Forward”, *Journal of Construction Engineering and Management*, 136(4), 423-28.
- **Maiti, S., Jha, S.K. and Garai, S. (2011)** “Performance of Public-Private-Partnership Model of Veterinary Services in West Bengal”, *Indian Res. J. Ext. Edu.*, 11(2): 1-5.
- **Mallak, K. (1991)** “Satisfying Stakeholders for Successful Project Management in Infrastructure Development”, *Computers and Industrial Engineering*, 21(4), 432-33.
- **McArthur. (2017)** “Strategic Value Creation in Infrastructure Projects: Decision Maker's Perspectives on Urban Transportation Developments”, *International Megaprojects*, 34.
- **Nayak, R. (2010)** “Role of Karuna Trust: A Public-Private Partnership Venture in Delivering of Health Care Services”, A Thesis of Masters in Hospital Administration, Padamashree College of Hospital Administration. Karnataka: Rajiv Gandhi University of Health Sciences.
- **Patibandha. (2018)** “An Analysis of Public Private Partnerships in Infrastructure of Provision of Public Goods through E-governance in India”, *IIMB Working Paper Series*.
- **Patil, S.B. (2017)** “A Study of Vocational Skill Development By Upgraded Industrial Training Institutes Through Public Private Partnership in State of Maharashtra w.r.t Select Districts”, A Ph. D thesis, Faculty of Management Studies, Pune: Bharati Vidyapeeth University.
- **Rajput, N., Batra, G. and Oberoi, S. (2013)** “Evaluation of Public Private Partnership Policies in India: An Analytical Study”, *International Journal of Physical and Social Sciences*, 3(10): 367-380.
- **Rath, B. (2015)** “Scope of Public-Private Partnership for Sustainable Development of Water Resource Projects in a Backward Region of India”, *Water and Energy International*, Water Resources Section: 54-66.

- **Saiyed, A. (2015)** “Public Private Partnership and Legal Education: A Critique of Policies and Practices in India, With Special Reference to State of Gujarat”, A Ph. D thesis, Gandhinagar: Gujarat National Law University.
- **Sehgal, D. (2019)** “Identification of Critical Success Factors for Public-Private Partnership Projects”, *Journal of Public Affairs*, 56, 5-8.
- **Sengupta, A. (2009)** “Public Private Partnership in Infrastructure: A Study of BOT Projects in the Roads and Highways Sector in India” A Ph. D thesis, School of Social Sciences, New Delhi: Jawaharlal Nehru University.
- **Takim, R., Ismai, K., Nawawi, A.H. (2011)** “A Value for Money Assessment Method for Public Private Partnership: A Lesson From Malaysian Approach”, International Conference on Economics and Finance Research, Singapore: IACSIT Press.
- **Taxak, R.H. (2013)** “Public-Private Partnership: Studying Role of ICT in Higher Education (With Reference to Tourism)”, *Public Affairs and Governance*, 1(1): 53-59.
- **Thipperudrappa. (2017)** “Public Private Partnership and Higher Education System in India: An Economic Analysis”, *International Journal for research in applied science and engineering technology*.
- **Tseng, P. (2018)** “Public-Private Partnership Model used in the Taipei Central Station Project”, *Psychology Research*, 8(7), 336-39.
- **Tyndall. (2018)** “Bus Quality Improvements and Local Commuter Mode Share”, *Transportation Research: Policy and Practice*, 113, 175-78.
- **Vyas, C.S., Singh, P. (2012)** “A Detailed Study of Environmental Constraints Faced by Public Private Partnership (PPP) in India and the Road to a framework for successful implementation of PPP Project” *International Journal of Physical and Social Sciences*, 2(10): 428-452.
- **Wang, X. (2018)** “Public-Private Partnership in Public Administration Discipline: A Literature Review. *Public Management Review*, 20(2), 295-98.
- **World Bank (2006)** “India: Building Capacities for Public Private Partnerships”, Energy and Infrastructure Unit and Finance and Private Sector Development Unit, South Asia Region. Washington D.C.: World Bank.
- **Yang, J.B., Yang and C.C. (2010)** “Evaluating Schedule Delay Causes for Private Participating Public Construction Works under the Build-Operate-Transfer Model” *International Journal of Project Management*, 28(2): 569–579.
- **Yong. (2009)** “Transformation of the Urban Rail Sector through PPP”, *Journeys*, 24-28.
- **Zheng, Y. (2018)** “Influence of Relational Norms on User's Interests in PPP Projects: Mediating Effect of Project Performance”, *Sustainability*, 4-8.