

Review Article

Agency theory in Public-Private Partnership Projects

*¹Waseem Ali Tipu | ²Talha Yousaf

¹Department of Management Studies, Bahria Business School, Bahria University Islamabad Campus, Pakistan

Email: waseemalitipu@gmail.com

²NUST Business School, Islamabad, Pakistan

Email: talha.phd22nbs@student.nust.edu.pk

Correspondence

¹Department of Management Studies, Bahria Business School, Bahria University Islamabad Campus, Pakistan,

Email: waseemalitipu@gmail.com

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ABSTRACT

This study aims to find out the agency theory perspective with special emphasis on the agency problem in public-private partnership (PPP) projects. In this study, we have reviewed relevant articles about agency theory application in PPP projects to specify the problem, gap, and application of the principal-agent concept. PRISMA (Preferred items reporting and systematic meta-analysis) has been used for the selection of articles. The study provides a fair review of the agency theory concept along with the agency problems in PPP projects to formulate a strong foundation of relationships amongst partners. The study finding will help practitioners and policymakers to work on PPP with a better comprehension of agency theory.

KEYWORDS

Agency Theory, Public-private partnership, PRISMA, Integrative Review, Projects

1 | INTRODUCTION

The agency theory (i.e. principal-agent theory) surfaced in 1970 through the amalgamation of economics and institutional theory. Later the agency theory moved beyond the institutional and economic study to various aspects including information asymmetry, risk management, and uncertainty. Agency theory is widely used in multiple disciplines since its origin i.e. four decades ago. Now this theory has captured the focus of project management, corporate governance, and operation management literature (Parker et al., 2018). Agency theory talks about the relationship in projects like Public-Private Partnership projects, the public context refers to the citizens as the ultimate principle i.e. public authority (Mayston, 1993) and the agent is commonly referred to as a private company. Agency theory was originated from the work of Jensen and Meckling (1976). It is an economic relationship between partners by observing them as self-interested and rational actors (Zogning, 2017). Eisenhardt (1989) reviewed two extreme positions on agency theory i.e. the exponents who argued that agency theory is a revolutionary theory (Jensen & Ruback, 1983) and the opponents who stated agency theory is narrow, not clear, and has testable implications. Most researchers have concluded about agency theory that it is unique, clear, and empirically testable that can be used in any organization or business arrangement to address principal-agent issues (Lan & Heracleous, 2010). Agency theory since evolution has boundary issues and there is a need for its further theoretical development (Bendickson, Muldoon, Liguori, & Davis, 2016).

1.1 | Research Objectives and Questions

This article aims to conduct a literature review with a view to obtaining a relationship between agency theory and PPP. This study will also devolve upon strengthening the relevance logic of agency theory with PPP projects as an overarching theory while discussing the agency problems in partnerships. Therefore, this study answers the following research question:

RQ1: Does agency theory deals with relationship in PPP?

RQ2: How agency theory deals with the relationship conundrum in PPP projects?

1.2 | Research Methodology

PRISMA (preferred reporting items for systematic review and meta-analysis) given by Liberati et al., (2009) has been used for systematic literature review. PRISMA provides a clear picture of past studies in a specific area. Moreover, systematic evaluation gives an overview of the particular study until the current time. Similarly, Philips and Newton (2002) explain that Meta-analysis results are presented in statistical methods to regulate the published articles. Liberati et al., (2009) has advocated that PRISMA is very advantageous to researchers, scholars, and literature by systematic literature review provision. According to Mardani et al., (2020) have used PRISMA in different studies. The current study has used PRISMA in three main phases as current literature search, selecting of related published articles, and extracting information and summarization.

2 | LITERATURE SEARCHING AND IDENTIFICATION

Two databases Scopus and Web of Science (WOS) with online index such as the Social Science Citation Index (SSCI), Science Citation Index Expanded (SCIE), Arts and Humanities Citation Index (AHCI), Emerging Science Citation Index (ESCI). The researchers have used several keywords to extract related articles such as “agency theory” and “public-private partnership”. The search was focused on papers published from 2015 to June 2022. The research has been restricted to papers written in English and published in peer-reviewed journals. As a result, articles appeared 1306.

2.1 | Literature Screening

After identification of the 1306 articles, the abstract and titles were screened with concern, and the articles meeting the criteria for full reading were separated. The criteria for full-read text were as follows:

1. Articles discussing the agency theory aspects in public-private partnership projects.
2. Articles discussing the principal and agent relationship in the realm of agency theory.

Basing on the above-mentioned criteria the 1232 articles were excluded from the 1305 screened articles.

2.2 | Literature Eligibility

In this phase, the full text of 73 articles was studied to evaluate their relevancy with the research topic to streamline the articles for inclusion in the study. 42 articles were excluded from the 73 articles in this regard.

2.3 | Literature Included

In this step of PRISMA, the most relevant article discussing the agency theory with principal and agent relationship in public-private partnership was finalized which appeared as 31. These articles are the outcome of the 1306 article that discusses our research problem in the most relevant manner. The PRISMA picture of this study is as under (Figure 1).

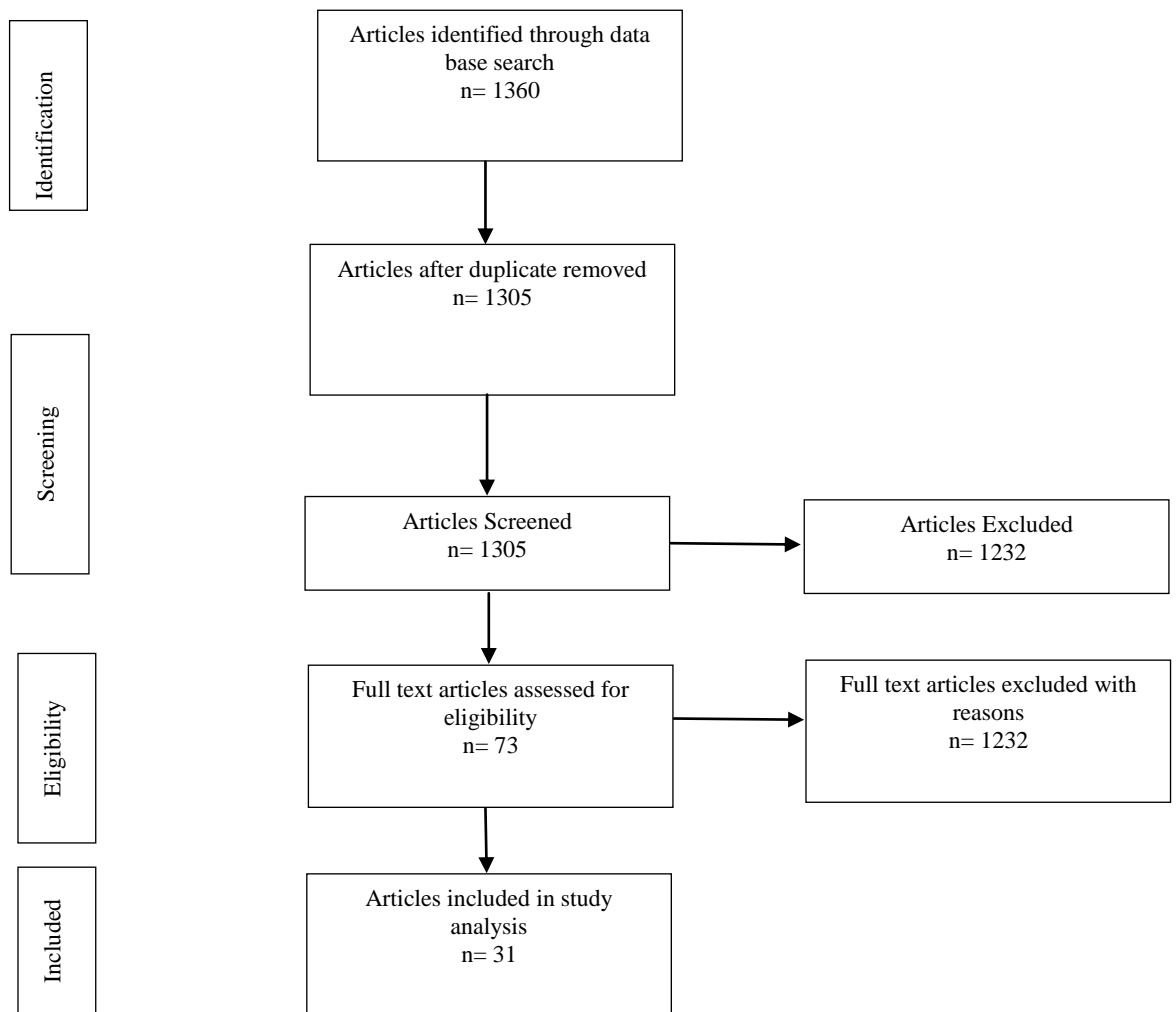


Figure 1 PRISMA Flow Diagram for the Study

3 | RESULTS

This study highlights the relevancy of agency theory in a public-private partnership relationship with a special emphasis on agency problems in partner's relationships as explained in the introduction.

3.1 | Public-Private Partnership

PPP i.e. Public-Private Partnership is an arrangement of coordination and cooperation between private and public sectors to undertake some specific project, which is considered as a part of the public sector domain. Governments around the world are taking benefit from this cooperation attributable to the provision requirements of different services and products. The last two decades have seen the enormous popularity of PPP arrangements (Osei-Kyei, Chan, & Dansoh, 2019).

3.2 | Conceptualization of Agency Theory

The principal-agent theory emerged in the early 1970s from the integrated aspects of economics and institutional theory. The institutional theory presents a unique approach to study economic, social, and political dynamics in which rules of games are formed by the institution. When the institutional structure operates properly, it reduces transaction costs, risk, and uncertainty (Kuijpers & Eijdenberg, 2021). An economic theory is a set of principles and ideas that describes the functioning of different economies. Thus, an economist may employ different theories for different purposes according to economic phenomena (Hodgson, 1998). Jenson and Meckling are the two stalwarts who are considered the pioneer of the principal-agent theory (Jensen & Meckling, 2019). This theory has further added institutional and economics studies to the aspects of uncertainty, risk management, and information asymmetry (Panda & Leepsa, 2017). The principal-agent theory highlights the relationship between two partners in which an agent represents the principal and acts on behalf of the principal in dealing with the third party. The arrangement or relationship between two partners is termed a contract. In this relationship principal employs agent to work on his behalf (Bjurstrom, 2020). (Figure 2).

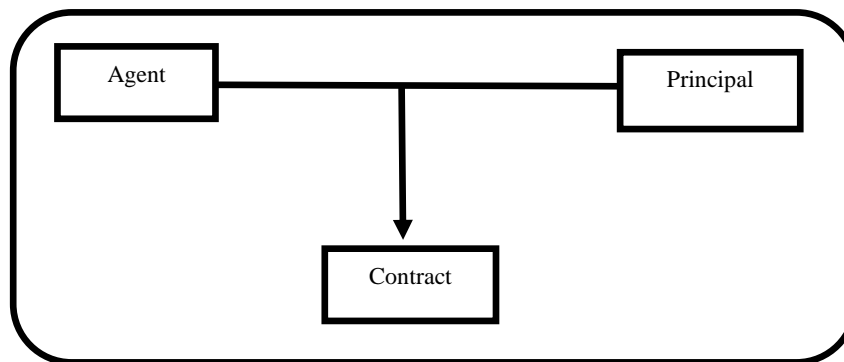


Figure 2 Conceptualization of the Agency Theory

Ross has explained the principal agent phenomenon as someone choosing an ice cream flavor for another one without knowledge of that particular person's preferences. Different researchers have reviewed agency theory with different perspectives in different domains of principal-agent relationships. In this regard, various relationships have been hypothesized and verified in different domains (Rose, 2019). Thus, we can say that agency theory is an analytical lens that can be used for the contractual relationship assessment between the principal and the agent (Yallew et al., 2018).

3.3 | Agency Theory in PPP

The agency theory is related to the Public-private partnership projects in which the adoption of agency theory depends upon the nature of the relationship or coordination between partners as it is linked with the project's success. The coordination arrangements between partners describe the nature of relationship between the principal and agents.

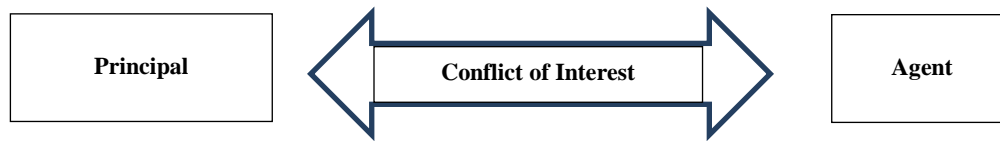


Figure 3 Agency Theory

There is an abundance of research articles describing the public-private partnership and many researchers explain the nature of this strategic partnership. Most studies have explained partnership arrangement as embedded features in the inter organizational network (Bendickson, Muldoon, Liguori, & Davis, 2016). According to Jiménez and Pasquero (2004), most researchers have discussed the PPP as the structural term and less attention has been given to the aspects as highlighted by Jiménez and Pasquero (2004) “over a long-term partnership environment in the turbulent phase of relationship”. Simultaneously, few authors have researched and explained the fact that factually matters i.e. initiatives in PPP (Ogbobe et al., 2009). The focus of such researchers remained on the assumption that PPP is a commonly used and adopted strategy for the delivery of public infrastructure and services. Moreover, the usage of PPP is primarily attributable to efficiency improvement through the joint commitment of the public and private sectors both to tackle the risk. Few researchers have explained that the most common reason for PPP project failure is to manage stakeholders. The key stakeholders in PPP projects are the public whereas the institutions play the role of the agents on behalf of the public. The arrangement to deliver the responsibilities can be viewed and understood well with the perspective of the principal-agent model basing on the dynamics of that specific organization (Rwelamila, 2010). (Figure 3).

3.4 | Agency Problems in the Realm of PPP

The agency theory lens has been used as the foundation for this study. Therefore, there is a need to understand the relational nature of public and private partner relationship that exists between public-private partnership projects for the delivery of public service. This relationship between principal and agent is termed as contract and agency relationship exists when the agent performs on behalf of the principal (Bjurstrom, 2020). Agency theory helps to understand the critical assessment of the contractual relationship between the partners (Yallev et al., 2018). In this relationship or contract, there are likely chances that some problems will appear and those are termed agency problems (Smith, Umans, & Thomasson, 2018). In order to tackle these agency problems, agency theory provides a very logical and rational lens for understanding different aspects of principal-agent relationships in different domains of PPP projects (Rose, 2019). The history of agency problems can be traced back to the development of humankind and civilization when different people trade with each other for profit optimization. The principal agency theory rotates around the different aspects of agency problems and their solution (Panda & Leepsa, 2017).

Thus, agency theory examines the relationship between the partners in any project in which one partner is known as the principal and the other is called an agent to undertake the project (Kivistö & Zalyevska, 2015). Normally, the focus of the principal is to enhance service delivery while the agent seeks to optimize economic benefits from the relationship with the principal (Muhanguzi, 2019). Agency theory explains that an organization emerges from the nexus of the contracts that exist between the economic resource owner (i.e. principal) and the managers (i.e. agents) who are delegated with responsibilities to use resources for the execution of tasks aligning the contractual objectives (Jensen & Meckling, 1976). The basic theme of the agency theory highlights that agent is more informed than the principal, this information disequilibrium leads to certain unethical practices and this leads negatively affects the principal's capacity to monitor the interest of the agents (Holland, 1984). The principal-agent problem may appear when the interest of the principal and agents are parallel. In this case, the agent has more knowledge than the

principal does about the work execution. In such a scenario, the principal may not be sure that the agent is doing work in line with the principal's best interest (Nuwagaba & Molokwane, 2020).

According to Eisenhardt (1989), an agency problem arises under the asymmetric information conditions between the principal, and a conflict of interest appears between the partners. Moreover, it is expensive or difficult for the principal to validate the actions of the agent (Eisenhardt, 1989). In such cases, the research regarding the principal-agent relationship is based on the assumptions regarding incentive provisions to agents by the principal. Further, this assumption leads to the solution of contract optimization. The main aspect of the agency relationship is the attitude toward the risk of the contracting parties because in agency theory it is considered that the agent is more risk-averse than the agent (Eisenhardt, 1989; Dewatripont and Legros, 2005; Sadka, 2007).

Agency theory deals with a few assumptions regarding agency problems and those are conflicting interests of partners, the idea of rationality to undertake some steps, asymmetric information, uncertainty, and risk management. Mutuality between the partners is most difficult to achieve because of the different orientations and understanding of different collaborators (Liu et al., 2015). Agency theory provides a very useful framework to identify issues that can significantly impact relationships and expose their effects. The main aspects are the identification of compatible objectives for which the project participants have formulated a partnership along with their risk attitude difference towards uncertainty and complexity. Therefore, agency theory is used to answer the questions that can foster a collaborative relationship among the partners by dealing with uncertainty with proper risk management strategies (Osipova, 2015). There is very little discussion on the agency problems in the PPP relationship especially the uncertainty aspect (Smith, Umans, & Thomasson, 2018). There is a requirement to evaluate the agency problem i.e uncertainty, asymmetric information, and risk management to provide the solution to the application problem by keeping in mind the agency theory (Cheng et al., 2021).

4 | DISCUSSION

The literature review provides us with a fair picture of agency theory in PPP. It is mentioned that agency theory deals with the inter-organizational relationship as well as partners' relationship in PPP projects. Salient aspects of agency theory in PPP are mentioned in the ensuing paragraphs. Agency theory surfaced with the amalgamation of Institutional and Economic theory as it has been highlighted that agency theory contains the considerations of institutional theory and economic theory. Therefore, it talks about the relationship arrangements with the background of the economic arrangements or benefits acquired from that specific arrangement. Agency theory talks about the Involvement of partners in PPP projects. Every project depends upon the partner's involvement and the stakeholder's interest. Agency theory describes the relationship arrangement in any project and subsequently, the stakeholders dictate the partnership arrangement amongst the partners. Public-private partnership is the coordination and cooperation between the partners in which one is the principal and the other is an agent. The principal normally acts on behalf of the public and the agent acts on behalf of the private we can term this arrangement as a Principal-Agent model. Agency theory explains the relationship in an excellent manner and the relationship between the partners is termed a contract or agreement.

The success of a PPP project depends on the efficacy of the relationship in the PPP arrangement. Agency theory talks about the relationship arrangement among the partners and safeguards the interest of the stakeholders. This interest lays the foundation of the partnership arrangement and it depends upon the partners how they engage each other in a contractual arrangement basing on the interest. The relational arrangement in PPP is termed an agency relationship and thus any problem arising in this agency relationship is labeled as an agency problem. PPP project's success revolve around the management of agency problem as correct management or solution of agency problems leads to successful PPP projects. Thus, agency theory is the overarching theory that explains the agency problem and its management. Agency theory is an analytical lens to identify the contractual relationship between two partners. Agency theory examines the relationship between partners. Agency problems will appear if the interest of the principal and agent are parallel. Agency problems describe the partner's attitude toward risk. The agency problem explains the rationality to undertake some steps in PPP.

The above-mentioned aspects explain the involvement of agency theory in PPP projects. PPP is an arrangement for coordination and cooperation of the private and public sectors around the world. (Li et al., 2016). The main idea of the PPP scheme is public and private sector collaboration with different tiers of responsibilities and involvement as

well as to provide public services more proficiently (Yun et al., 2021). The concept of PPP specifically focuses on the interrelationship between private and public partners. Moreover, this arrangement also stems from the concept of mutual sharing of risk, cost, and profit (Klijn & Koppenjan, 2016).

The main idea in PPP is the relationship among the partners and agency theory covers the relationship dynamics very efficiently. We can deduce that agency theory deals with the relationship i.e. agency relationship amongst the partners in PPP and talk about conflict of interest in the form of agency problems. Therefore, a lot many authors like Nuwagaba & Molokwane (2020); Bjurstrøm (2020); Muhanguzi (2019); Parker et al. (2018); Smith, Umans & Thomasson (2018); Yallem et. al. (2018); Panda & Leepsa (2017); Zogning (2017); Bendickson et al. (2016) etc have used the agency theory lens to describe the relationship arrangement in PPP project because the relationship arrangement play a pivotal role in PPP success. Any conflict of interest emerging due to behavior/ attitude towards risk or partnership challenges can be addressed by obtaining the theoretical support from agency theory.

5 | CONCLUSION AND FUTURE RESEARCH DIMENSION

This study remained focused to find the relevancy of agency theory with PPP as per the set objectives. However, this study could not discuss about the agency relationship and agency problem over the complete life cycle of PPP projects as PPP projects are complex due to their longevity. Therefore, future researcher may explore the agency relationship/ problems during the PPP projects with a view to analyze the behavior/ attitude change of partners in different phases of PPP.

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