

## **Project Management Theories on Project Management Delivery in Ghana**

### **Abstract**

**Objective:** The purpose of this study is to investigate on the project management theories on project delivery. Project Management Theories has been underlined as one of the key diagnosis among businesses and economic growth with project delivery.

**Methods:** A comprehensive review was carried out with the aid of online research journal websites as well as other in-context articles. While conducting this study, the key words in the search query were directed towards project management theories and project delivery in Ghana. Areas noted in relation to this study was use of project management theories among businesses and Ghana's economic growth. Therefore, there was linkage of papers pointing out the effects on project management theories on project delivery.

**Results:** The findings indicate that corporations have little to no say over project performance metrics and are unable to take on responsibilities outside of their core competencies. Managers' decision-making improves when they have access to reliable data. Having clear project goals in mind is crucial for making informed investment decisions.

**Conclusion:** This comprehensive review provides an in-depth understanding of project management theories on the project management deliveries among businesses and the growth of the economy in Ghana.

**Keywords: Management, Theories, Project, Delivery, Ghana**

## **Introduction**

A broad variety of organizations operating in a wide variety of industries have resorted to project management as a management strategy in order to achieve a wide variety of objectives. According to the findings of development economists, developing countries such as Ghana have resorted to project management as a tool to fulfill their objectives for economic growth. The use of project management in both public and commercial initiatives will undoubtedly result in a number of positive outcomes. As an example, the banking sector in Ghana has seen a "expansion and intensification of competition," (1) . In a business environment that is becoming more competitive in Ghana, intelligent project management practices have the ability to differentiate organizations from their competitors. The work that has to be done, the strategies that need to be implemented, the resources that need to be assigned, and the environment in which the project is going to be carried out are all linked components of a project.

The several phases that comprise a project life cycle (PLC) also contain these components as part of its structure. It is vital to the proper functioning of the pieces that they be integrated into functional systems that support and enhance the completion of a project. Despite this, there are a number of problems that develop as a result of the interdependencies of different systems, which may make it difficult for projects to function smoothly and effectively from time to time. In the course of a project's life cycle, from its origin to its development to its planning and control to its execution, there are a number of factors that might potentially contribute to the project's ultimate failure (2, 3).

To this point, the majority of research on project management (PM) has focused on four primary areas: public sector PM, firm-specific PM, private sector PM, and generic macro-level PM (4,5,6). PM problems have been investigated by a number of academics, including Cicmil in 2000, Leseure and Brookes in 2004, Palmer in 2002, Longman and Mullins in 2004, Chan and Tam in 2000, Gale and Cartwright in 1995, and Duhlsten in 2004 (7,8,9,10,11,12,13). These researchers have looked at PM concerns at both the firm level and the broader macro level. According to the findings of another piece of study conducted by Benko and McFarlan (14), "Today, all companies are more dependent than ever before on projects for growth." An other piece of study that arrived to the same result was that "many projects fail to achieve their objectives" (15). As a final point, "successful project teams perform certain practices better than unsuccessful ones" was another finding that was reached from an ongoing seven-year research (16).

Studies that were carried out in Europe, the Americas, and Asia have been the primary focus of previous conversations around PM research topics. On the continent of Africa, there is a paucity of published material on PM, and none of the articles that we looked at featured any research on Ghana. The efficiency of projects in Ghana and the nature of the problems that have plagued project management in the nation have not been the subject of any serious study up to this point. This is the case because a lack of research has been conducted.

When it comes to monitoring the effectiveness of project interventions, several donor and development organizations carry out this task on their own. The results of these exercises, on the other hand, are seldom made public and are instead referred to as "internal documents" (17).

In light of this, the purpose of this essay is to make an attempt to discuss some significant occurrences that take place in the field of project management in a developing country, namely Ghana. Project management in developing countries is distinct, and the author believes that this fact has the potential to contribute some exciting new aspects to the continuing conversation about project management that is taking place all over the globe.

Given the importance of projects in Ghana, it is imperative that an investigation be conducted into the difficulties that are associated with project management in the nation. 'Vision 2020,' a white paper on development strategy, was issued by the administration of the National Democratic Congress (17). Ghana was ruled by the NDC from 1992 to the year 2000. Using projects as a tool for development is something that is suggested in the article as a way to accelerate the rate of social and economic progress. It was intended that this would be done by synchronizing the efforts of the public sector and the private sector in order to guarantee that the projects, programs, and companies of the nation were managed in an efficient and professional manner.

As soon as it took power in 2001, the government of the New Patriotic Party (NPP) reiterated its commitment to using projects as a development instrument in order to accelerate the economic growth of the nation. The Presidential Special programs (PSI) have been very helpful in launching, establishing, and getting started with a number of different programs. The Ghana Poverty Reduction Strategy Paper (18), which is the government's policy framework document for economic development, places a significant amount of emphasis on projects. As a result, projects are here to stay and will continue to be the technique of choice for Ghana to achieve its goals for economic growth.

As a result, the objective of this research is to investigate the influence that various theories of project management have on the actual implementation of project management in Ghana.

## **Project**

Research by (19) suggests that the term "project" originates from the Latin terms "pro," which means "forward," and "jacere," which means "hurl." In late Middle English, it was used to imply "preliminary plan, tabular declaration." Additionally, it was derived from the Latin term "projectum," which meant something noteworthy. "an individual or group undertaking with the specific goal of completing a defined set of tasks by a specified date" is the definition of a project that can be found in the Oxford English Dictionary (20).

Kozak-Holland, Procter (21) provides a more in-depth explanation when it comes to the notion of a "project" that comes before any other acts. Instead of referring to the actual act of carrying out a task, the term's original meaning related to anything that was intended to be accomplished. For the purpose of describing every activity that was carried out in accordance with a project, the word "object" was used. Around the same time, in the 1950s, a number of different techniques and methodologies for project management were developed, and the meaning of the term underwent a considerable transition to cover both projects and objects.

Despite the fact that many authors do provide guidance on how to manage projects, they are not always clear on precisely what comprises a project (22). On the one hand, they use the word to refer to a more general category of phenomena than merely projects, while on the other hand, they use it to designate a particular form of project, such as engineering projects (23, 24, 25).

Within the realm of academic writing, the word "project" may be defined in a number of different capacities. Projects are described as an all-encompassing collection of activities that make use of resources in order to accomplish a certain goal (26). In the year 1997, he provided more explanation by stating that projects are distinct and distinguishable components of a larger program that is not as well defined (27). "A project is an organization of people committed to a defined goal or mission," according to Tuman (1997). "Such an organization is a project." Large, expensive, one-of-a-kind, or otherwise hazardous initiatives that are subject to stringent timelines, budgets, and performance expectations are the characteristics that define the majority of projects. Each and every project has to have well-defined objectives and sufficient funds to carry out all of the tasks that are required (27).

A project is characterized broadly by Knoepfel characterized by "a whole (set) of actions limited in time and space, inserted in, and in interaction with a politico-socio-economic environment, aimed at and tended towards a goal progressively redefined by the dialectic between the thought (the project plan) and the reality" (28,29).

"A project is an endeavor in which personnel, funds, and supplies are organized in an innovative manner to undertake a unique scope of work, of given standards, within limits of budget and schedule, so as to achieve a positive outcome defined by quantitative and qualitative objectives" (30). Project management is defined as "a temporary endeavor undertaken to create a unique product, service, or result" in the Project Management Body of Knowledge (25). Therefore, an activity that has a certain timeframe, objective, and collection of resources is referred to as a project that has been outlined. Unlike a routine operation, a project is characterized by the fact that it is comprised of a predefined series of actions that are carried out in order to accomplish a specific goal.

In addition to the items that have previously been described, a project is often something that includes spending money with the expectation of receiving something in return. Therefore, it is reasonable to assume that planning, financing, and execution may all be handled simultaneously. In order to achieve certain objectives, it is essential to follow a specific plan of action that has been established in advance (31). However, in the majority of instances, it is not a routine component of continuing operations; rather, it is a one-of-a-kind action that is notably different from previous investments that are similar and will most likely be different from forthcoming investments (32). The basic pieces of this approach, which is effective for estimating return on investment (ROI), include a well defined sequence of production activities and investment processes, as well as a set of advantages that can be identified and quantified. According to Wateridge (33), the administrative structure and set of accounts of a project will often be almost entirely or almost entirely independent, with money coming from a particular financial package that has been clearly established. Not only should project statements contain technical facts, but they should also clarify the objective of the project, the processes that will be required, and the value that it will offer to the bottom line of the state organization (34).

An illustration of the components of the project description may be seen in the following figure.

According to Blomquist et al. (35), planning is an essential component of each project that the two of them undertake. It is possible for members of the project team to utilize plans as a framework and a road map in order to assist them in accomplishing the mission of the project. The many reasons make it abundantly evident that projects are distinct from conventional occupations in a number of significant respects, including the following:

It is important to note that every project has both a beginning and an end (31, 25).

In order to complete a project, there are only a few resources accessible (30,31,36).

In order for a project to be successful, it must adhere to an organized, planned strategy that places an emphasis on both performance and quality (31, 25).

Turner (30) asserts that every project need to be considered unique.

The responsibility for the outcomes of a project lies with the management (35,25).

### **Project Management**

The purpose of project management is to ensure that projects are carried out in accordance with the plan, do not exceed the budget, and fulfill all of the criteria. In the meanwhile, they provide a contribution to the attainment of the organization's other goals, which include achieving efficiency, quality, and cost-effectiveness. According to Besana, the ultimate goal of project management is to ensure that projects are completed successfully while adhering to the financial, schedule, and scope constraints that have been established (37). Using the definition provided by Anggoro and Yudoko (38), "the application of methods, tools, techniques, and competences" is what is meant by the term "project management." As part of the process of project management, the numerous stages that comprise the life cycle of a project are coordinated. In project management, methods are the most important component. Furthermore, according to Lalonde et al. (39), project management is described as "a temporary organization that is required to produce a unique and predefined outcome or result in a predetermined amount of time using predetermined resources." According to PMI, the Project Management Institute (25), "is therefore the integration of expertise, abilities, instruments, and methods to project activities in order to meet the project requirements." According to the International Project



Management Association (40), the definition of a project is "an operation that is constrained in terms of both time and cost in order to realize a set of defined deliverables that are up to quality standards and requirements."

What project management is all about is planning, executing, and monitoring project activities to achieve project objectives while effectively controlling and balancing the restrictions of scope, time, and money (41). Project management is one of the most important aspects of project management. The overriding objective is to provide high-quality outcomes that meet or exceed the expectations of all of the project's responsibilities and stakeholders. In contrast to projects, operations are continual functional activities that result in the creation of a successful product or service. Operations may be either permanent or semi-permanent, depending on the circumstances.

### **Industrial History of Ghana**

The government of Ghana experimented with a variety of various strategies for economic expansion during the decades of the 1960s, 1970s, and 1980s. The 'Big Push' economic tactics were the primary emphasis of Ghana's economic development objectives in the early 1960s, during the period immediately after the country's independence. Heavy investments, a drive toward industrialization, a decrease in dependence on imports, the processing of raw resources for export, and direct government engagement in important economic sectors were the focal points of these initiatives (42).

In the 1970s, the government started to reserve a number of sectors for state participation, Ghana-foreign ownership, or pure Ghana ownership. This marked the beginning of increased "Ghanaianization" or indigenization. At the beginning of the

1980s, the government of Ghana liberalized the economy and promoted foreign investment (42).

Unfortunately, by the middle of the 1980s, all of these measures had failed terribly, and the situation had become much worse as a result of poor trade circumstances, falling commodity prices, and significant debt. A depressed economy, enormous unemployment, high inflation, capacity under-utilization, dependence on primary commodity exports, and low productivity were all symptoms of Ghana's terrible socioeconomic situation. This situation was brought about in part by the failure of various economic models and the intense pressures exerted by external forces. Ghana's socioeconomic situation was a result of a combination of factors.

The search for solutions that are technically optimal has not been the only challenge that progress has faced. In view of the limited resources available in Ghana, one of the country's long-term challenges has been to improve the efficiency and effectiveness with which it manages organizations, programs, and projects that are operated by both the public and private sectors. Since the late 1980s, Ghana has been actively participating in a variety of programs and projects that aim to implement social and economic measures. The overarching objective of these initiatives is to make the process of development more controllable (42).

### **Evolution and Use of Project Management**

During World War II, the need to find solutions to difficult operational difficulties that were tied to the fight gave birth to the concept of project management as a distinct organizational paradigm. It was born out of the requirement that was recognized, which was a variety of needs that were identified. It was not possible to effectively manage work of a project-type using the standard organizational structures

and management approaches that were available. On the other hand, the typical functional organization had a tendency to be mechanical, product-focused, and functionally oriented. This was in contrast to the considerable emphasis that was placed on objectives in project organizations (42).

This is made possible by the coordinated use of both physical and human resources, which allows the project objectives to take priority over flawlessly functional connections. Going forward, the emphasis will be placed on collaborating as a group and merging our skills.

Problems with management, financial management, planning, and control may result in major inefficiencies, delays in production and delivery schedules, and waste of resources in organizational circumstances that include a large number of companies, extended periods of time, huge amounts of uncertainty, and extremely big quantities of money. Utilizing project management as a technique is essential in order to circumvent these issues. The primary impetus behind the development of project management was the inefficiency of traditional systems of organization and management when it came to work that was of a project-type nature (42).

## **Theories of Project Management**

### Game Theory

The use of game theory to guide choices about the design of oil and gas projects was recommended in a study that was conducted by (43). In a prior work, researchers utilized game theory to develop a decision-making process for LNG operations (43). This was done in light of the fact that the LNG industry is characterized by the presence of several criteria. In addition, (44) said in his book that game theory may be used in circumstances that need very complex decision-making.

### Fuzzy Theory

In a study that was conducted by (45), fuzzy theory was used for the purpose of risk assessment in the field of building engineering. They had identified three components that comprised the construction risk system. These components were risks that originated from inside the company, risks that originated from the owner, and risks that originated from society and the environment that were present. The authors of (45) recommended utilizing fuzzy system theory to design a construction engineering risk fuzzy prediction model in order to perform risk studies throughout the planning, bidding, and construction or implementation stages of engineering project contracts. This would allow for the conduct of risk analyses across the whole process.

### Utility Theory

The utility hypothesis is used to determine the level of risk tolerance that decision-makers have, as supported by study conducted on construction management by (46). The foundation of risk assessment data is comprised of historical data, conditional probability, the utility function, and economic factors (supply and demand, seasonality). It is recommended that you first do a cost-benefit analysis (47) before attempting to utilize Utility Theory as a decision-making tool. The purpose of a recent research was to investigate whether or not there is a connection between being open to new experiences and taking risks.

According to the findings, a person who is risk averse will exercise more caution while making judgments, which will ultimately result in benefits that are more beneficial. When it comes to decision-making, those who have a propensity for taking

risks are more likely to do so than those who are risk averse, which results in a reduction in the utility of those individuals (46).

### Reliability Theory

Prior research conducted by (48) has used reliability theory in order to construct trustworthy economic systems. The objective of this study was to improve dependability by reducing the number of errors that occurred in commission and omission. The application of reliability theory to the risk management of logistics park development projects was accomplished by (49) in order to increase the dependability of the project while also decreasing total expenditures. During the decision-making stage, the recognized factors are the choice of investment, the direction of the function, and the location. Land acquisition, surveying and design, tendering and bidding, finance and preparation, and overall construction preparation are important areas that are considered to have substantial risk issues. These are the main areas that are considered to be the most important.

Following are some of the things that have been identified as having an impact on the building phase: supervision, security, administration of equipment and materials, management of contracts, installation and commissioning of facilities, and construction. The last step, which was the handout and operation, consisted of the handover and acceptance of the shipment, as well as the management of the merchant and the operation.

### Resource Based Theory

The Resource Based View and Resource Based Theory are two theories that have their origins in economics; nevertheless, they have subsequently found applications in a wide variety of domains, including sociology, management, information science,

and knowledge management (50). The researchers conducted an analysis of 73.8% of the literature on Resource Based Theory in the subject of general management and strategy between the years 1992 and 1994. In the years 1998 and 2000, they discovered 57.7% of the material.

Management-related disciplines such as marketing, organizational research, production functioning, and management are some examples of fields that have switched their attention away from economics, as shown by recent theoretical assessments (50). Furthermore, the following is the focal point of resource-based theory to consider: 3. acceptable proxies for firm resources, such as research and development capabilities or managerial tendencies; 4. the new IO game theory approach, which takes into consideration three forces: 1. own assets; 2. competitors' assets; and 3. constraints from the broader industry and public policy environment. 1. organizations' distinctive inputs and capabilities as a measure of performance; 2. the level of resources, whether reputational or dealer loyalty-based; 3. 4. the level of resources (50).

Furthermore, according to (51), which is a theory of strategic management, managers have made extensive use of the Resource Based View in the management of projects. It is possible for you to utilize it to determine how your resources may assist you in outperforming the competition by producing more value than they do and achieving a higher return on your capital.

#### Action Based Theory

According to (52), the phrase "short-term organization" is often used interchangeably with "project management." Their research led them to the conclusion that "action" does not necessarily have to be an unavoidable consequence of "decision," implying that a decision might be taken after an action in order to provide credibility to the

action itself. When it comes to time, tasks, teams, and transitions, there are four scenarios in which action may take priority over decision-making.

### Contingency Theory

Subsequent work enhanced the theory by include internal elements such as structural formalization, specialization, and technology as contingencies (53). Early study used contingency theory to investigate the degree to which the structure of an organization adhered to the external circumstances. The concept of contingency theory is predicated on the notion that some aspects of a management organization are in accordance with probable occurrences that have the ability to improve the performance of the organization (54).

For the purpose of management accounting, (55) conducted a research on risk management in the public sector. In the course of this research, the idea of contingencies was used. In the past, the private sector has used contingency theory in order to prioritize the most significant risks in accordance with the impact that they have on the core financial statements.

This theory is not applicable to the public sector because organizations in the public sector are more concerned with accomplishing their purpose than they are with generating a profit.

In light of the fact that the vast majority of studies have shown that technical reasons, as opposed to managerial variables, are to blame when projects fail, (56) reexamined the subject by using the principles of contingency theory.

In order to illustrate that management choices based on the "better, faster, cheaper" attitude were the true cause of project failures, they used the occurrence of the loss of the Mars Climate Orbiter as an example. In accordance with the contingency theory, in order to enhance the performance of an organization, it is essential to ascertain

which components of the management structure are compatible with the many occurrences that may occur over the course of a project. Therefore, while making choices about the project, the owner or manager of the project should take into consideration the contingencies, which may be the vital components or crucial variables that contribute to the project's success.

### **Analysis on the theories for Project Delivery**

The resource-based theory, the dependability theory, and the utility theory are often used in the pre-planning and planning stages of projects, as shown by studies on the decision-making process surrounding project management. The use of game theory and fuzzy logic is often employed in order to ensure the success of projects in decision-making processes that are becoming more complex, including decision-making based on several criteria.

In the phase that follows the clearance of the project, known as the implementation phase, choices are often made utilizing action-based theory. In the case of an emergency, an action may take priority over a choice and contingency theory. In this scenario, the decision is made after the activity has already taken place in order to provide an explanation for the previous action. This is particularly the case in situations when time is of the utmost for the task, the team, or the transition (52).

Quantitative research on theories' effects on project delivery found that, when analyzed by method type, neither the total efficiency measure of the project nor its individual performance measures changed much. In contrast to earlier research, the hybrid and plan-driven methods consistently outperform the agile strategies (53).

The most popular methods are Scrum (22% share) and waterfall (20%). plus a quarter of the market share, Scrum plus XP dominates as the most popular agile approach (53,



54). A statistically significant relationship between the methodological approach and either the individual performance measures or the project efficiency factor was not observed.

Regardless of the technique, all project management responsibilities as defined in the ISO standard for project management apply. Project managers have more hands-on experience with the day-to-day running of agile projects than product owners and coaches. Project managers are responsible for more than just acting as a "gatekeeper" in Taylor's view (55).

## **Conclusion**

Project management has become a recognized science way to run programs, projects, and organizations in a way that is different from traditional management but still meets the needs of its practitioners. It has evolved into a powerful instrument that propels Ghana's ambitions for economic progress. Nevertheless, the expected level of success in using projects to achieve development goals has not been achieved.

Every initiative must have well-thought-out strategies on how to put them into action. This would make it possible to allocate funds adequately, allowing projects to be finished within their anticipated time frames.

An annual matching fund element per project per sector has to be projected and forecasted for particular loan-tied programs in order to support loan disbursements. It is important to include the matching fund component into subsequent loan financing as well.

It is essential to have detailed plans and drawings for the project before it starts so that you can adapt to any changes that may arise. any project stakeholders must agree on

and sign off on any modifications for them to be efficiently handled and to prevent disagreements.

Consistent adherence to project execution plans is essential. No official should ever bring in a new, unanticipated project that might throw off the previous project's execution timeline.

In order to enhance the science and art of project management in Ghana, this article suggests that practitioners should follow a two-pronged approach. Firstly, they should actively avoid the project management problems that the study identified. Secondly, they should seek out theories that can help stakeholders and project principals improve their skills in planning and managing projects. Together, these two steps will pave the way for projects to become an indispensable instrument in Ghana's quest for long-term economic sustainability.

## References

1. Anambane G, Hinson RE. Integrated Marketing Communications in the Healthcare Sector. *Health Service Marketing Management in Africa*. 2019 Dec 6;107–20. doi:10.4324/9780429400858-10
2. Kotnour T. Organizational learning practices in the project management environment. *International Journal of Quality and Reliability Management*. 2000; 17(4).
3. Abednego M, Ogunlana SO. Risk allocation assessment through good project governance concept. *Risk Management in Engineering and Construction*. 2019 Sept 9;248–59. doi:10.4324/9780203887059-14
4. Zhou H, Gao B, Tang S, Li B, Wang S. Intelligent detection on construction project contract missing clauses based on Deep Learning and NLP. *Engineering, Construction and Architectural Management*. 2023 Oct 31; doi:10.1108/ecam-02-2023-0172
5. Khan PD, Khan JI, Khan R. Impact of educational intervention on smoking knowledge, attitude and behavior of adolescents in schools of developing country [Rawalpindi Pakistan]. *International Journal of Medical and Biomedical Studies*. 2019 Mar 11;3(3). doi:10.32553/ijmbs.v3i3.142
6. Gent L, Percy AE & Parry ME. The high-cooperation hospital project team. *Team Performance Management*. 1998; 4(6).
7. CICMIL S. Reflection, participation and learning in Project Environments: A multiple perspective agenda. *Management of Knowledge in Project Environments*. 2005;155–79. doi:10.1016/b978-0-7506-6251-2.50012-2
8. Leseure MJ & Brookes NJ. Knowledge Management Benchmark For Project Management. *Journal Of Knowledge Management*. 2004; 8(1).
9. Palmer M. How an effective project culture can help to achieve business success: establishing a project culture in Kimberly – Clark Europe. *Industrial and Commercial Training*. 2002; 34(3).
10. Longman A & Mullins J. Project Management: Key tool for implementing strategy. 2004; 25(5).
11. Chan APC & Tam CM. Factors affecting the quality of building projects in Hong Kong. *International Journal of Quality and Reliability Management*. 2000; 17(4).
12. Gale A & Cartwright S. Women in Project Management: entry into a male domain? a discussion on gender and organizational culture – part1. *Leadership and Organizational Development Journal*. 1995; 16(3).
13. Duhlsten F. Hollywood wives revisited: s study of customer involvement in the XC90 project at Volvo Cars. *European Journal of Innovation Management*. 2004; 17(2).
14. Benko C & McFarlan W. 2004. Managing a growth culture: how CEOs can initiate and monitor a successful growth – project culture. *Strategy and Leadership*. 2004; 32(1).

15. Zwikaël O & Bar-Joseph BA. Improving the capabilities of project team management using the Gestalt Cycle of experience. *Team Performance Management*. 2004; 10(7).
16. Akgun AE, Lynn GS & Byrne JC. Taking the guesswork out of new product development: how successful high – tech companies get that way. *Journal of Business Strategy*. 2004; 25(4).
17. National Development Planning Commission (NDPC). First Medium-Term Development Plan 1997-2000. NDPC: Accra. 1998.
18. National Development Planning Commission (NDPC). 2003. Ghana Poverty Reduction Strategy 2003-2005: An Agenda for Growth and Prosperity. NDPC: Accra 2003.
19. Niknazar P, Bourgault M. Theories for classification vs. classification as theory: Implications of classification and typology for the development of Project Management Theories. *International Journal of Project Management*. 2017 Feb;35(2):191–203. doi: 10.1016/j.ijproman.2016.11.002
20. Project Management, N. Oxford English Dictionary. 2023 Mar 2; doi:10.1093/oed/1039242362
21. Kozak-Holland M, Procter C. Florence Duomo Project (1420–1436): Learning best project management practice from history. *International Journal of Project Management*. 2014 Feb;32(2):242–55. doi: 10.1016/j.ijproman.2013.05.003
22. Floricel S, Bonneau C, Aubry M, Sergi V. Extending Project Management Research: Insights from social theories. *International Journal of Project Management*. 2014 Oct;32(7):1091–107. doi: 10.1016/j.ijproman.2014.02.008
23. Keil M. When good theories backfire. *Project Management Journal*. 2022 Feb 9;53(2):107–12. doi:10.1177/87569728211065682
24. Willis BE. APM Project-Management Body of knowledge: The European view. *International Journal of Project Management*. 1995 Apr;13(2):95–8. doi:10.1016/0263-7863(95)00006-c
25. PMI. Tailoring, Quality Management, and Improving Project Processes. PMI- ACP Project Management Institute Agile Certified Practitioner Exam Study Guide. 2018 Jan 26;291–312. doi:10.1002/9781119549222.ch10
26. Biesenthal C, Clegg S, Mahalingam A, Sankaran S. Applying institutional theories to managing megaprojects. *International Journal of Project Management*. 2018 Jan;36(1):43–54. doi: 10.1016/j.ijproman.2017.06.006
27. Tuman J. Development and implementation of Project Management Systems. *Project Management Handbook*. 1997 Dec 5;652–91. doi:10.1002/9780470172353.ch27
28. Knoepfel H. Systematic Project Management. *International Journal of Project Management*. 1983 Nov;1(4):234–41. doi:10.1016/0263-7863(83)90056-x
29. Levine HA. Computers in Project Management. *Project Management Handbook*. 1997 Dec 5;692–735. doi:10.1002/9780470172353.ch28
30. Turner R. Farsighted project contract management. *Contracting for Project Management*. 2017 Jul 5;33–57. doi:10.4324/9781315259352-3
31. Killen CP, Jugdev K, Drouin N, Petit Y. Advancing Project and Portfolio Management Research: Applying Strategic Management Theories. *International Journal of Project Management*. 2012 Jul;30(5):525–38. doi: 10.1016/j.ijproman.2011.12.004
32. Petit Y. Advancing Project and Portfolio Management Research: Applying Strategic Management Theories. *Strategic Direction*. 2012 Aug 17;28(9). doi: 10.1108/sd.2012.05628iaa.004

33. Wateridge J. Successful Project Management. *International Journal of Project Management*. 2001 Apr;19(3):191. doi:10.1016/s0263-7863(99)00054-x
34. Crawford L. Developing Organizational Project Management Capability: Theory and practice. *Project Management Journal*. 2006 Aug;37(3):74–86. doi:10.1177/875697280603700308
35. Blomquist T, Hallgren M, Nilsson A, Soderholm A. Project-as-practice: In Search of Project Management Research That Matters. *IEEE Engineering Management Review*. 2012;40(3):88–88. doi:10.1109/emr.2012.6291583
36. Gasik S. Discrepancies between public administration and project management. *Projects, Government, and Public Policy*. 2022 Sept 22;1–8. doi:10.1201/9781003321606-1
37. Besana D. Cultural Heritage Design: Theories and methods for the project complexity management. *EGE-Expresión Gráfica en la Edificación*. 2019 Dec 30;(11):31. doi:10.4995/ege.2019.12864
38. Anggoro P, Yudoko G. Integrated Risk Management Frameworks ISO 9001:2015 as a successful parameter in project management: The case of Yamal Train 3 project. *Proceedings of the 3rd International Conference on Applied Economics and Social Science*. 2021; doi:10.5220/0010861900003255
39. Lalonde P-L, Bourgault M, Findeli A. Building pragmatist theories of PM practice: Theorizing the Act of Project Management. *Project Management Journal*. 2010 Dec;41(5):21–36. doi:10.1002/pmj.20163
40. Ellis G. Agile Project Management. *Project Management in Product Development*. 2016;223–60. doi:10.1016/b978-0-12-802322-8.00008-5
41. Peng Y. Robust control in project management: A Review. *DEStech Transactions on Computer Science and Engineering*. 2017 May 11. doi:10.12783/dtcse/itms2016/9464
42. Cullen K, Parker D. Improving performance in project-based management: Synthesizing strategic theories. *International Journal of Productivity and Performance Management*. 2015 Jun 8;64(5):608–24. doi:10.1108/ijppm-02-2014-0031
43. Castillo L., and Dorao C.A, “Consensual Decision-making Model Based on Game Theory for LNG Processes.” *Energy Conversion and Management*. 2012. vol. 64, pp. 387-396.
44. Kelly A., “Decision Making Using Game Theory: An Introduction for Managers.” Cambridge: Cambridge University Press, 2003.
45. Zhao Y., Liu X., and Zhao Y., “Forecast for Construction Engineering Risk Based on Fuzzy Sets and Systems Theory”, 2011 International Conference on Risk and Engineering Management (REM), System Engineering Procedia, vol. 1, pp. 156-161, 2011.
46. Kaplinski O., “Risk Management of Construction Works by Means of The Utility Theory: A Case Study.” 11th International Conference on Modern Building Materials, Structures and Techniques, MBMST 2013, Procedia Engineering, vol. 57, pp. 533-539, 2013.
47. Sherve C.M., and Kelman I., “Does Mitigation Save? Reviewing Cost-benefit Analyses of Disaster Risk Reduction.”, *International Journal of Disaster Risk Reduction*, vol. 10, part A, pp. 213-235, 2014. (<http://dx.doi.org/10.1016/j.ijdr.2014.08.004>).
48. Christensen M., and Knudsen T., “The Human Version of Moore-Shannon’s Theorem: The Design of Reliable Economic Systems.” DRUID Working Paper No. 07-08, Danish Research Unit for Industrial Dynamics, 19 pages, 2007.

49. Wang Y., "Research on Risk Control of Logistics Park Construction Project Based on Reliability Theory." 13th COTA International Conference of Transportation Professionals (CICTP 2013), Procedia-Social and Behavioral Sciences, vol. 96, pp.2194-2200, 2013.
50. Acedo F.J., Barroso C., and Galan, J.L., "The Resourcebased Theory: Dissemination and Main Trends", Strategic Management Journal, vol. 27, pp.621-636, 2006.
51. Conner K.R., "A Historical Comparison of Resource-based Theory and Five Schools of Thought Within Industrial Organization Economics: Do We Have a New Theory of The Firm?" Journal of Management, vol. 17, no. 1, pp. 121-154, 1991.
52. Lundin R.A., and Soderholm A., "A Theory of The Temporary Organization." Scand. J. Mgmt, vol. 11, no. 4, pp. 437-455, 1995.
53. P. Serrador and J. K. Pinto, "Does Agile work? — A quantitative analysis of agile project success," International Journal of Project Management, vol. 33, no. 5, pp. 1040-1051, July 2015, <https://doi.org/10.1016/j.ijproman.2015.01.006>.
54. Y. Shastri, R. Hoda, and R. Amor, "Does the "Project Manager" Still Exist in Agile Software Development Projects?" in 2016 23rd AsiaPacific Software Engineering Conference (APSEC), 2016, pp. 57-64, <https://doi.org/10.1109/APSEC.2016.019>.
55. K. J. Taylor, "Adopting Agile software development: the project manager experience," Information Technology & People, vol. 29, no. 4, pp. 670-687, 2016, <https://doi.org/10.1108/ITP-02-2014-0031>.