



## PROJECT MANAGEMENT IN THE CONTEXT OF ORGANIZATIONAL THEORY: A CONCEPTUAL REVIEW

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### Abstract

The objective of this paper was to analyze: 1) how project management relates to the field of organizational theory, 2) how the relationship between project management with the organizational performance and the business model has been studied, and 3) how the relationship between the business model and organizational performance has been studied. A narrative-type literature review was chosen for the methodology. As a result, it was possible to demonstrate that: 1) project management has a conceptual and empirical relationship with business strategy, 2) the relationship between project management and organizational performance has been analyzed in the context of the framework of competing values model and balanced scorecard, 3) the relationship between project management and business model has been analyzed within the framework of entrepreneurship theory and the strategic theory of resource-based vision, and 4) the relationship between the business model and organizational performance has been analyzed within the framework of the economic approach.

**Keywords:** Organizational theory, project management, business model, organizational performance, business strategy.

### Introduction:

The study of organizations, as well as their management, has been addressed by several scientific disciplines such as: sociology, anthropology, psychology, engineering, economics, and management. The empirical and conceptual studies that within the framework of these disciplines have been oriented to study organizations, have consolidated the body of knowledge of the 'Organizational Theory' (OT). The reasoning from this theory has been characterized by the implicit object of understanding what the factors that affect performance or organizational effectiveness are (OD) [1]. A management field review realizes that various theoretical trends have tried to explain OD relating it to different factors. In this framework, the industrial improvement approach [2] related it to aspects of labor relations (cohesion and morale); the scientific administration school [3], with labor rational management (efficiency and productivity); the classical [4] and bureaucratic [5] schools, with adequate design of organizational structure; and the human relations' school [6], [7], [8], [9] and scientific behavior theory [10], [11], [12] with motivation, communication, and leadership in the human talent context.

According to Scott [13], from the industrial improvement focus to behavioral theories and going through the classical, scientific, and bureaucratic schools, the organizational theory has explained the organization as a natural system when it focuses its analysis on behavioral aspects of the social and regulatory actors of organizational structures; and, as a rational system, when it focuses its analysis on the objectives, purposes, and communication processes of the organization. Both approaches have left aside the environment or surroundings' analysis. In Guevara's words [14, p.245], "these schools, except the bureaucratic one, have studied the organization with a closed system approach."

The paradigm shift represented by the *general systems theory* [15], [16] and the *cybernetics* [17] in the science worlds implied that, in the organizational theory field, the organization began to be studied with an open system approach [18]. Within this new outlook, the organizational theory, concepts of strategy, organizational culture and theory of contingencies start to play a role.

The strategy concept is restrained by Ansoff [19], as the necessary dialogue the organization must establish with its environment, and by Chandler [20] as the set of actions with which the organization responds to the environment. On the other hand, the contingency theory, based on the empirical work of Woodward [21], Pugh et al. [22], and Burns and Stalker [23], establish that the structure is contingent on technology, environment, size, and organization strategy. Finally, the organizational culture approach was based, among others, on the total quality concept [24], [25], which interpreted quality problems, focusing on workers' performance and managers' leadership.

The approach of organizational studies as a closed system has equated OD to the concepts of efficiency, effectiveness, productivity, and quality. Conversely, the open system approach and the field of business strategy equates it, also, to the competitiveness concept which placed, in the center of the management discourse, the value creation perspective as a central object of organizational management. In this context, tele frameworks such as: supply chain, value networks, stakeholder theory, and business models (BM) become relevant.

Contrarily, BM is considered in the management literature, as an analysis unit capable of capturing value creation, which arises from multiple sources in the operation of organizations [26], [27], [28]. Therefore, Budler *et al.* [29] raises, among other issues, that research on BM ontologies should be oriented to determine how valuable BM can be for OD.

In the OT context, project management (PM) has become a management theoretical domain which, in terms of research and in addition to traditional project analysis, has ventured into the behavior and study of organizational strategy [30]. In this regard, from the Project Management Institute (PMI), a research program was developed to obtain credible evidence of the value that PM provides to organizations [31].

In this line of studies, questions have arisen in the field of PM, such as: What is the PM value and its impact on OD? How does PM improve OD and increase competitiveness? [32] How can you study the PM value for a company's competitive advantage? [33] What is OD in the context of PM and how can it be assessed? [3. 4] Is the PM perspective capable of generating transformations in the BM? [35].

Considering the previous background, the objective of this paper was to analyze: 1) how project management is related to organizational theory, 2) how the relationship between project management with organizational performance and the business model has been studied, and 3) how the relationship between the business model and the organizational performance has been studied.

### **Materials and methods:**

Bearing in mind what Juntunen and Lehenkari [36] stated regarding the systematic and narrative review of literature, this research study was developed within the narrative review framework. It implied an iterative, unstructured process, channeled by the concepts under study. Data search was carried out first, through books and files of classic OT literature. Subsequently, a search of scientific articles was made, through the SCOPUS tool as the first filter, and later, documents were searched from the reviewed bibliography using the snowball sampling.

## **Results and Discussion:**

### **Project management (PM)**

According to Koskela [37], Project Management (PM) is a specialized management discipline that was born in the 1950s as a result of the application of Critical Path Methods (CPM) and Program Evaluation Review Technique (PERT) in the military industry and construction. Research on PM is a line of knowledge currently used in various fields and practices of science, being the four research areas with the highest rank: Management, Business, Operations Research, and Industrial Engineering [38].

Some studies have sought to analyze trends of the PM thematic lines. For instance, Bredillet [39] made an analysis of publications carried out between 1985 and 2004 on PM from the management journals of the Premier EBSCO Business database. He found as an area of interest, the link between strategy and project, which give way to topics such as: Governance, PM Maturity, and Change Management.

On the other hand, Kwak and Anbari [40] made a review of 500 articles related to PM, published in 18 journals from the management and business fields between 1950 and 2007, to better understand, from the beginning, the PM perspective and trends of disciplines related to the management field. Results of this review show, among other things, that academics and professionals, since the 50s, have shown interest in applying PM principles, tools, techniques, and concepts, to organize and manage resources, maximize profits, minimize costs, and support the overall strategy of organizations.

In this sense, the increasingly recurrent use of the best PM practices can be highlighted, to achieve effectiveness, efficiency, and productivity in the organization operations [41]. Similarly, the body of knowledge of PMI highlights that PM studies in the organizational field revolve around the link between field and strategy. In this context, the focus on 'value delivery' becomes relevant in PM, for which organizational capacities such as Governance, PM Maturity, and Change Management are essential [42].

### **Business model (BM)**

When the scientific management literature was reviewed, it was found that the expression 'BM' appeared for the first time in the work of Bellman et al. [43], in the domain of computer-aided modeling and simulation, for business planning and executive training purposes. In their seminal work, Amit and Zott [26] proposed BM as a unifying unit of analysis, capable of capturing the creation of value arising from multiple sources within the organization.

In the same sense, Chesbrough and Rosenbloom [44] state that the origins of the BM concept should be sought in strategy studies, especially the line that seeks to explain how managers could take advantage of the organization's resources more beyond its current business. Fjeldstad and Snow [45] locate the origin of the BM concept in Drucke's work [46] 'The Management Practice' published in 1954. In his best seller, Drucker conceptualized 'business' as a business organization that meets its objectives through the marketing of a product or service.

Several authors have sought to make a conceptual border of BM. Among these, Weill and Vitale [47] define it as a description of the roles and relationships between consumers, customers, allies, and suppliers of a company that identifies the main flows of product, information, and money, and the main benefits for participants. Zott and Amit [48] specify it as a description of the content, structure, and governance of transactions designed to create value by means of exploiting business opportunities. For their part, Osterwalder and Pigneur [49] define BM as a description of the bases on which a company creates, provides, and captures value. Similarly, Teece [50], specifies it as the design or architecture of the mechanisms of creation, delivery, and capture of value from a company. And, Baden-Fuller & Morgan [51] suggest that one of the functions of business models is to provide a set of generic level descriptors of how a company is organized to create and distribute value profitably.

On the other hand, Demil and Lecocq [52] define BM in the context of Penrose's vision of business growth [53], as the way in which an organization operates to ensure its sustainability. In this regard, he differentiates between two approaches to understand the concept development: a *static approach* and a *transformational approach*. In the static approach, BM is thought of as a tool that facilitates the

description and classification of business organizations. In this approach, the most relevant word of the concept is 'model', therefore, it is used to synthesize the way in which business value is created, from describing how the organization works. This approach helps managers to conceptualize the different activities carried out by the company and its mechanisms for value creation.

Contrary to the static approach, the transformational approach looks at BM as a tool to address changes from innovation, either in the organization or in the BM itself. Innovations that have ended in new BMs are highlighted for having shaken entire industries. Next, these authors propose that a BM can be described, analyzed, and understood, based on its resources and competencies, its organizational structure and its proposals for the value delivery.

Finally, it is important to highlight that different authors have developed a bibliographic analysis of BM research trends, e.g., in their review, Zott *et al.* [27], classifies BM studies into three large fields: a) e-business and the use of information technologies in organizations, b) strategic issues, such as value creation, competitive advantage, and OD, and, c) management of innovation and technology.

In the same line of analysis, Lambert and Davidson [54], state that, although BM has been described in various ways, its use has gained relevance in a wide range of business and management research. A review of the scientific literature published between 1996 and 2010 shows that, in the empirical research processes, where the concept is used, three main thematic lines can be defined: a) BM as a basis for business classification, b) BM innovation, and c) BM and business performance.

Furthermore, Ho [55] made an exploration of BM field, concluding that the concept is crucial to explain OD. He also argues that, in practice, managers apply BM to improve the organization competitive advantage, and the literature on the construct can be classified into three main lines: a) Ontology and Value, b) Sustainability and c) Business Performance. On the other hand, Caputo *et al.* [56], states that the three main thematic lines of BM research revolve around *technological innovation*, *strategic management*, and *digital transformation*.

### **Organizational Performance (OD)**

The OD is understood as the concrete results that show the achievements contrasted with the organization objectives [57]. It is a criterion that is widely used to study different organizational phenomena, especially business success as a result of efficiency and effectiveness, measured with performance criteria [58], e.g., Tomášková and Kaňovská [59] carried out an empirical study with 60 small and medium-sized enterprises (SMEs) from the electronic equipment and components industry in the Czech Republic to find out if inter-functional coordination related to ethical and environmental aspects has any influence on OD.

Similarly, Byukusenge and Munene [60], applied a survey in 250 SMEs in Rwanda, to evaluate the mediating effect of innovation in the relationship between knowledge management and OD. Sumiati [61] conducted a study with a purposive sample of 180 Indonesian companies to determine the strategic planning effect on OD. Mulyana *et al.* [62] collected data from 205 creative industries in Indonesia, to determine the effect of market orientation, product innovation agility, and learning orientation on OD.

One of the most cited references in terms of OD measurement is the spatial model of competing values proposed by Quinn and Rohrbaugh [1], which they developed using multivariate techniques based on the classification of the OT literature. Although this model is conceptual and abstract, Cuevas *et al.* [57], made an empirical application to verify the relationship between innovation in marketing and the overall performance of SMEs in the industrial sector of the Guadalajara State in Mexico, and Barrios *et al.* [63] applied it to determine the structural relationships that exist between the determinants of the OD of the Colombian dairy industry. These two studies allow us to observe the development of the model at the level of variables.

### **Relationship Between Project management (PM) and organizational Performance (OD)**

Regarding the line of research that relates OD to PM, Aubry and Hobbs [34], raised the key questions in the discussion: What is OD in the context of project management and how can it be assessed? In regard to the conceptualization of performance, they assume the framework of the competing values

approach which considers the values within organizations and, to evaluate the contribution of PM to OD, they developed a multiple case study, seeking to determine the contributions of PM in general, and of the Project Management Office (PMO) in particular.

As results, they determined that there is a positive contribution of the PMO to the OD, this contribution is not static, but rather dynamic, considering that the evolution of the perception in the PMO with respect to the OD is changing. This measurement can end up being a process loaded with subjectivities. In the same sense, Aubry *et al.* [64] carried out the study of transformation in a university hospital through a participatory action research, to analyze the performance in the domain of organizations dedicated to PM. On the PM theory side, they considered the governance represented by the PMO. Similarly, with respect to OD, they considered the competing values approach.

Consequently, they were able to determine that OD can be seen as a construction based on the actors' values and preferences, a situation that causes tensions and disagreements within the organization. The benefits that the PM offers to manage these tensions and disagreements are represented in the governance that the PMOs provide.

The two studies by Aubry *et al.* show a style characterized by two aspects: 1) they are theoretically based on the competing values approach, and 2) they consider that the evaluation of the contribution of PM to OD can be specified by analyzing the PMO contribution to OD, considering that the PMO is a governance instrument of the PM within the organization.

For their part, Chen *et al.* [65], carried out a study in the Customer Relationship Management (CRM) internet services domain, where they applied a questionnaire to cloud CRM experts and experts from three companies with extensive experience in cloud CRM PM, with the purpose of determining, among other aspects, the variables of the effects of this type of projects, related to the project risk, PM, and OD.

On the one hand, they conceptualized that a project success, within an organization, depends on four dimensions: 1) senior management support, which guarantees resources and capabilities, 2) planning and project control, through the use of management tools, 3) internal integration, which allows the project team to operate consistently and has the technology and resources for execution, and 4) the level of user involvement.

The OD measurement was framed within the framework of the Balanced Score card (BSC), therefore, as performance indicators they measured that the project results satisfied users' needs, the project development processes were efficient, the investment in the project represented an opportunity for growth and learning for the organization and, the project provided opportunities for personal or organizational growth and learning.

Finally, they concluded that companies that implement CRM projects in the cloud attach relevant importance to financial performance; managed through the control of project costs and the general operating costs of the business.

### **Relationship Between Project management (PM) and business models (BM)**

Some studies have sought to relate PM with BM. In this line, Di Muro and Turner [35] developed an analysis within the framework of entrepreneurship theory, based on the hypothesis that the perspective of projects is capable of generating transformations in the BM. For this, they conceptually delimited the perspective of projects from the point of view of the organization of resources and means, through processes with a defined scope, which allow to achieve changes with quality, cost control and risk mitigation, in a horizon of determined time.

On the other hand, they interpreted BM as the relationship between the priorities and capabilities of the company, considering that it implies developing a value proposition for customers, which can be implemented considering the organization capabilities, through processes and combination of resources, which allow generating a profit.

Finally, they end up proposing the concept of 'opportunity project', which, according to the authors, provides good PM practices with respect to: scope, time, organization, cost, risk and quality, to promote BM which implies: time and risk, value proposition, profit structure, resources, capabilities and processes.

In the same sense, Siqueira and Crispim [66] carried out an empirical work to analyze the alignment of information technology (IT) projects in the BM of companies from different sectors in Brazil, which they addressed through 327 surveys applied to project managers, program managers, department heads, coordinators, analysts and consultants working on IT projects.

In the theoretical context, the authors relate the strategic dimension with the PM and pose as one of the biggest challenges for senior management, the ability to implement project portfolios aligned with the BM. In this context, PM theory contemplates Project Offices (PMO) and Project-Based Organizational Structures (PBO).

Finally, the referenced authors concluded that there is a positive and significant correlation between the alignment of IT projects and the BM of the analyzed organizations. PMOs positively influence the maturity and alignment of IT projects with BMs and, the PBOs positively influence the alignment maturity of the IT projects with the BMs.

### **Relationship between Business Model (BM) and Organizational Performance (OD)**

Along the same lines, Kujala et al. [67], analyze BM in the domain of project-based organizations (PBO) which they conceptualize as that type of organization that executes most of its activities, through projects. Therefore, these projects, become the means through which the organization creates and delivers value to its stakeholders [30]. On the other hand, they characterize BM of the PBOs on the approach of Chesbrough and Rosenbloom [44]. Therefore, they consider as constitutive elements of the same: the client, value proposition, competitive strategy, organization position in the value network, the key capabilities of the organization, and the generating income logic. Finally, they conclude that the nature of BM in the PBO must be based on the solution of the client's needs.

Regarding the line of studies that relates BM to the OD, in the domain of entrepreneurial companies, Zott and Amit [68], formulated the question: How does the design of the BM affect OD? In their dissertation, they do not make a conceptual delimitation of OD, but their argumentation makes it clear that they consider performance as the dependent variable and analyze the construct from an economic perspective. In this sense, they consider OD variables: Stock Market Value, Return on Investment (ROI) and Return on Assets (ROA).

For their part, they analyze BM design in the context of Williamson's theory of transaction costs [69] and Schumpeter's innovation theory [70], to support efficiency and novelty as design elements. Finally, they determined that: 1) innovative MB designs are associated with higher performance levels, and that 2) efficiency-focused BM designs are associated with higher performance in scarce environments. Along the same lines, Camison and Villar [71] contrast BM with OD to determine if the selection of a BM per se results in significant differences in OD. In this study, they analyze performance within the framework proposed by Lin and Germain [72] and Nahm *et al.* [73]. Therefore, they consider as variables: 1) the *operational profitability of net assets*, the *net profitability of equity* and the *operational profitability of sales*; 2) *market share* and *customer satisfaction*; 3) *labor productivity* and the *satisfaction of other interest groups*, and 4) *positioning*. The above denotes an economic approach to OD.

On the other hand, they analyze BM within the framework of the business strategy, therefore, they define it conceptually in the context of three dimensions: the *organizational structure*, the *degree of diversification* and the *management of the activities* of the *value chain*. Finally, they applied a survey to executives of 159 companies from 19 Spanish industries that led them to conclude that the implementation of a specific MB does not generate significant differences in OD in the analyzed context.

In the same sense, Kindström [74] uses the BM concept as a framework to propose a strategy in the domain of service companies, which improves competitive advantage and performance. In this paper, BM was analyzed in the context of Chesbrough's proposal [75]. Consequently, it considered its constituent elements: the *proposal*, the *value chain* and *network*, the *competitive strategy*, the *income mechanisms* and the *target market*.

**CONCLUSIONS:**

This conceptual study has allowed to conclude that: PM, in the context of OT, has become a disciplinary field which has established conceptual and empirical dialogue, among others, with the field of business strategy and the BM and OD constructs.

The analyzed studies offer empirical evidence that the relationship between PM and OD has been developed within the framework of the competing values model and the BSC.

The line that relates PM with BM, analyzes the viability of said relationship within the framework of the entrepreneurship theory and the strategic theory of the resource-based vision. Therefore, this relationship can be synthesized in the concept of creation, delivery and capture of value through efficiency, effectiveness, innovation, and competitive advantage.

The line of research that relates BM to OD, analyzes the performance within the framework of the economic approach. In this sense, it analyzes variables linked to stock market activity, profitability, human resource productivity, market share and customer satisfaction, and the positioning of the firm. The PM contribution to BM and OD can be materialized through the governance and maturity that PMOs can offer within organizational structures in addition to the opportunity that PBO structures and projects can offer as a strategy implementation tool. In this context, BM can be understood as the framework that describes the structure in which the PM-OD relationship develops.

In all cases in which the concepts of PM, BM and OD are related, OD always acts as the dependent variable, and, when PM is related to BM, BM is the dependent variable. Furthermore, the relationship of these concepts occurs in the domain of organizational studies as a general field. However, it is worth noting that, when the BM concept is involved, the domain is configured in a special type of organization such as the company.

Finally, it is important to highlight that the number of documents reviewed may somehow represent a limitation for this study, especially considering that the theoretical context analyzed represents thematic lines of high discussion within the scientific community. Nonetheless, with all the reflections that emerge from this review, a central question can be thought that will give rise to future discussions: *How can good PM practices be implemented to promote OD by strengthening BM?*

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