Chapter 12

Project Management Tools and Techniques to Deal With Disruptive Situations in Projects: An Applied Research in the Colombian Context

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ABSTRACT

This research work aims to analyze how project management tools and techniques help project managers to deal the disruption in projects in the Colombian business context. Firstly, a detailed literature review about project management and disruption was conducted. Secondly, a comprehensive scientometric analysis of project management and disruptive situations on this kind of endeavor was undertaken. Thirdly, tools and techniques suitable for handling disruptive situations on projects were identified. Fourthly, an extensive fieldwork over 700 organizations from the Colombian organizational context was executed. Fifthly, a detailed statistical analysis was carried out to determinate how project management tools and techniques contribute to handle disruption on this kind of initiatives. And finally, research findings were documented, a positive effect of the use of project management tools and techniques to face disruptive situations on project was found, conclusions were set, and future lines of research were defined.

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INTRODUCTION

On the literature review, some researchers had study project management and disruptive situations on this kind of endeavors mainly from a theoretical perspective, based on unique cases of study far way form the reality of projects in Colombia. The objective of this is research work in to analyze how project management tools and techniques help project managers to deal the disruption in projects.

This applied research, proposes a model to face disruption in projects by implementing suitable tools and techniques in order to improve project's performance, increase value creation for hosting organizations, and align projects in a proper way with corporate strategies in the Colombian context.

This chapter makes a significant contribution to the project management discipline in the country, by addressing, scientifically, the way project managers, key stakeholders, and hosting organizations, may face unwanted effects of disruption in projects, by deploying proven project management tools and techniques, in a comprehensive approach, in order to improve the management of this kind of endeavors performed by organizations from the Colombian context.

BACKGROUND

Disruption in project management, is a topic of research that had been increasing its appearance on the scientific literature on resent years ((Scopus, 2021) and Web of Science (WOS, 2021), in order to identify the suitable project management tools and techniques to deal with disruptive situations on this kind of endeavors, it is required to conduct a details literature review on this regard.

Initially, key terms on the matter of research were defined. Latter, a detailed scientometric analysis was conducted on main bibliometric tools by including, as a search topic, the terms disruption and project management.

Definitions of Disruption on Project Management

Disruptive situations are common in projects. This term can be defined as something "new and original, in a way that causes major changes to how something is done" (Oxford, 2021). Other definition of disruptive is "causing, tending to cause, or caused by disruption; disrupting: the disruptive effect of their rioting" (Thesaurus, 2021).

Uncertainty, change, unpredictability, complexity, and risks emerge as some of the aspects related to disruptive conditions that must be addressed by project managers in order to fulfill project objectives, create value for the hosting organization and related stakeholders, and align projects whit corporate strategies (Rincón-González, 2020).

Uncertainty is described as the "lack of knowledge or understanding of an issue, event, way to follow, or a solution to find. Uncertainty "can increase or amplify issues, risks, behaviors or situations internal or external to a project or program" (PMI, 2014, p. 97).

Change is a "modification to any formally controlled deliverable, project management plan component or project document (PMI, 2017, p. 700). Unpredictability relates to "a typical result of a project or program in a complex environment. Social and political interactions can create issues or results that are impossible to predict" (PMI, 2014, p. 97).

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