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Project management in infrastructure and construction

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PROJECT MANAGEMENT IN INFRASTRUCTURE AND CONSTRUCTION

1. Contextualization

Infrastructure and construction are fields where the amount of investments achieves trillions of dollars annualy around the world (Ferrari, Giovannini & Pompei, 2016). The selection of adequate management techniques is extremely important to the success of projects in these areas (Kaiser, El Arbi & Ahlemann, 2015). The two most commom project management techniques named as Critical Path Method (CPM) and Earned Value (EV) are between the main tools used to control projects in infrastructure and construction (Olawale & Sun, 2015; Patil, Desai, & Gupta, 2015).

2. Objectives

The main objective of the class was to introduce themes related to the industry of infrastructure and construction in a global scenario regarded to the project organization and project parties, as well as how to control costs, schedule, project cash flow, stakeholders and an overview on ways to control projects by the usage of Critical Path Method (CPM) and Earned Value technique (EV).

3. Methodology

The methodology of this study is based on the analysis of the material used during the international module of project management program and also by the considerations of the class itself. A brief review of the literature about project management in infrastructure and construction was made to support the study as well as content on Critical Path Method and Earned Value was used to reinforce the usage of these techniques on the project control.

4. Theoretical Review

According to (Ferrari, Giovannini & Pompei, 2016) in the next five years the demand for global infrastructure projects will reach the amount of US$ 4.2 trillion annualy. Kaiser, El Arbi & Ahlemann (2015) argues that appropriated management tools must be used to align the organization´s structure to the strategic goals of construction projects, while Olawale & Sun (2015) reinforce the importance of Critical Path Method to this area and in relation to the Earned Value technique Patil, Desai, & Gupta (2015) consider that this tool is fundamental to control infrastructure and construction projects.

5. Results and Analyses

Critical Path Method and Earned Value are tools that can be used to promote an effective control of costs, schedule, cash flow and optimize the achievement of success on the management of projects in infrastructure and construction. It is also important to guarantee the quality and safety of the projects, as well as to have control of all stakeholders like the owner, contractor, financier, consultants and the project team.

6. Final Considerations

The industry of infrastructure and construction is one of the most important field to the project management, the professionals engaged into this area must have solid knowledges about how to control all aspects involved in this kind of enterprises, for instance, costs, schedule, stakeholders, cash flow, risks, quality and safety of the projects.

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