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MANAGING COMPLEX AND MEGA PROJECTS IN EMERGING COUNTRIES

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Keywords:

Complexity, Complex Projects, Emerging Countries; Megaprojects; Serving Science

Contextualization:

“Complexity in a management context is a matter of perception and ambiguity” (Remington & Pollack, 2007, p.17), and may impact negatively the achievement of time, cost and quality (Antoniou et al., 2013). Megaprojects are large-scale, complex ventures that typically cost US\$1 billion or more, take many years to develop and build, involve multiple public and private stakeholders, are transformational, and impact millions of people. Consequently, they are managed differently (Flyvbjerg, 2014).

Objectives:

Provide an in-depth analysis of the class theme “Managing Complex and Mega Projects in Emerging Countries” taught in Bentley University and plant visit to the company “XYZ” in Boston that is world leader in serving science. The purpose of this study is to evaluate the closeness between theory on managing complex projects in emerging countries and their practice in the companies.

Methodology:

The proposed research question “**how an emerging company manages its complex projects?**” led to a single case study of qualitative nature and descriptive (Martins & Theóphilo, 2009). Furthermore, the non-participant observation was used for collecting the information’s.

Theoretical Foundation:

Complex projects involve extensive communication and strong relationships between stakeholders (Cicmil & Marshall, 2005), moreover, there are different levels of complexity (Shenhar & Dvir, 2007), requiring specific forms of management (Maylor et al., 2008). In this sense, complexity may hinder to control all aspects of project management (Vidal et al., 2011). Megaprojects are a more complex class of project in terms of their level of aspiration, lead times, and stakeholder involvement (Flyvbjerg, 2014).

Results and Analysis:

Most concepts of complexity available in the literature are applied by the target company, but other practices could be incorporated into the management process, such as the classification of the complexity of projects, targeting more flexible and adaptive management mechanisms. Limitations in this study reduced the number of data handled as well as the depth of the findings, but the results helped achieve the goal of this study.

Conclusions:

This poster summarizes the keys elements studied at Bentley related to complexity, mega projects management and service science plant visit. In conclusion, it was possible to verify that complexity are increasing as an organizational response to the environment changes and



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need the companies to run its complex project in a not-linear approaches to achieve project's success. It was also noted that Project Management role are increasing in importance in order to help face these new challenges.

References:

Antoniou, F., Aretoulis, G. N., Konstantinidis, D., & Kalfakakou, G. P. (2013). Complexity in the evaluation of contract types employed for the construction of highway projects. *Procedia - Social and Behavioral Sciences*, 74(29), 448–458.

Cicmil, S., & Marshall, D. (2005). Insights into collaboration at the project level: complexity, social interaction and procurement mechanisms. *Building Research & Information*, 33(6), 523–535.

Flyvbjerg, B. (2014). What you should know about megaprojects and why: An overview. *Project Management Journal*, 45(2), 6–19.

Maylor, H., Vidgen, R., & Carver, S. (2008). Managerial complexity in project-based operations: a grounded model and its implications for practice. *Project Management Journal*, 39(1), 15–26.

Remington, K., & Pollack, J. (2007). *Tools for complex projects*. Gower Publishing, Ltd

Shenhar, A. J., & Dvir, D. (2007). *Reinventing project management*. Boston: Harvard Business School Press.

Vidal, L. A., Marle, F., & Bocquet, J. C. (2011). Measuring project complexity using the Analytic Hierarchy Process. *International Journal of Project Management*, 29(6), 718–727.