Innovation Capability Configuration in Complex Product Systems: The Brazilian Shipbuilding and Offshore Industry

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Abstract

This paper aims to analyze how capabilities are developed and arranged to generate economic positive results in two complex product systems (CoPS) firms. In this context, this paper is a case study based on interviews with the Shipbuilding and Offshore Industry in Brazil covering the overall characteristics of the firm’s capabilities. Results show that, out of the four innovation capabilities, there is a difference in the predominance and importance of them in each firm. The essence of this difference seems to be in the technological content of each firm which will require diverse capabilities’ configuration. The results from these two CoPS firms, corroborate with the finding of previous studies that the success of any firm relies on the predominance of at least one of the four capabilities. As this study is conducted in Brazilian Shipbuilding and Offshore firms, this implies that the generalizability of this study’s findings is limited to firms in Brazil and cannot be applied to other markets without a further validation. This empirical research has extended our understanding about the relation between innovation capabilities and CoPs. Also, the obtained findings offer the Brazilian executives and managers strategic insights in relation to need to develop innovation capacities even in complex productive structures. The academic value of this research is the analysis of CoPS through the perspective of innovation capabilities. Besides that, the analysis of a re-emergent industrial sector in a developing country context.

Keywords: Capabilities, Complex Product Systems, Technology, Business