World Academy of Science, Engineering and Technology International Journal of Industrial and Manufacturing Engineering Vol:9, No:08, 2015

Exploration and Exploitation within Operations

Authors: D. Gåsvaer, L. Stålberg, A. Fundin, M. Jackson, P. Johansson

Abstract: Exploration and exploitation capabilities are both important within Operations as means for improvement when managed separately, and for establishing dynamic improvement capabilities when combined in balance. However, it is unclear what exploration and exploitation capabilities imply in improvement and development work within an operations context. So in order to better understand how to develop exploration and exploitation capabilities within operations, the main characteristics of these constructs needs to be identified and further understood. Thus, the objective of this research is to increase the understanding about exploitation and exploration characteristics, to concretize what they translates to within the context of improvement and development work in an operations unit, and to identify practical challenges. A literature review and a case study are presented. In the literature review, different interpretations of exploration and exploitation are portrayed, key characteristics have been identified, and a deepened understanding of exploration and exploitation characteristics is described. The case in the study is an operations unit, and the aim is to explore to what extent and in what ways exploration and exploitation activities are part of the improvement structures and processes. The contribution includes an identification of key characteristics of exploitation and exploration, as well as an interpretation of the constructs. Further, some practical challenges are identified. For instance, exploration activities tend to be given low priority, both in daily work as in the manufacturing strategy. Also, the overall understanding about the concepts of exploitation and exploration (or any similar aspect of dynamic improvement capabilities) is very low.

Keywords: exploitation, exploration, improvement, lean production, manufacturing

Conference Title: ICOMIE 2015: International Conference on Operations Management and Industrial Engineering

Conference Location : Venice, Italy **Conference Dates :** August 13-14, 2015