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Management Changes in MRO Business through Product Lifecycle

Jaakko Sivusuo
University of Vaasa, Department of production, Finland
jaakko.sivusuo@gmail.com

Josu Takala
University of Vaasa, Department of production, Finland
josu.takala@uva.fi

Nowadays organizations and entire industries have faced the challenges of globalization and rapid technological development. These changes have brought new kind of competition and it has shaped and mixed organizations traditional business logic. In order to be successful organizations must be able to change and adapt to the changes facing. This requires organizations to have dynamic capabilities. (Helfat et al., 2007),(Teece, 2007) The theory of Dynamic capabilities has been studied over the past decade but in aerospace industry the theory is quite unexploitable.

Aerospace industry has faced radical changes during the past decade. Changes thru customer requirements has been one of the biggest drivers to put cost –effectiveness and cost –thinking in focus. Low-cost airlines have shake traditional airlines in markets. Surviving in the competition required changes. The changes shaped customer value and hence organizations had to react to changing their current business model. (Schneider, Spieth, & Clauss, 2013)

Aerospace industry can be devided in two parts; Civil and military aerospace. Both of these have their own drivers for dynamic but the common thing is that changes are present.

Focus of this study exams MRO –business (maintenance, repair and overhaul) which is characterized in aerospace industry. MRO is also critical to the success of airliners (Al-kaabi, Potter, & Naim, 2007). The study examines against the product life-cycle support services for the various stages of the product lifecycle and the changes brought about by these steps in management. Aerospace industry is not seen dynamic when compared to the electronic industry where the lifecycle of products may be less than a year. Product lifecycles in aerospace industry can be up to 100 years duration but the dynamics lies in the various stages of the services and their management thru whole lifecycle.

Research methods and research questions:

Research questions:

- What are the success factors in service business in dynamic environment
- How success factors connect with product life-cycle thinking
- Changes to management through product life-cycle

This study is case study and the aim is examing in-depth to the management of MRO –service organizations. In- depth the focus is on changes to management through product life-cycle. The study identifies several products in various stages of the life-cycle and thus identify the essential changes related to management. Theoretical framework is based on model of Dynamic Capabilities. Case organizations operate in military industry and their business logic and business model is built around a service business. Method for data collection is based on semi-structured interviews. Interview questions are built around a theory of Dynamic capabilities. The interviewees are part of their organization´s Board of management.

Results and conclusion:

Success factors in service business are build around partnership. Partnership perceived as profound trust between organizations and it is based on long-term contracts. The early stage of the life-cycle

management the focus is on learning. Through learning organization increases knowledge and by using knowledge shapes its business model. On the other hand this includes understanding the cost structure, building of the right resources, construction of right processes and the identification of customer value.

In the middle of the life-cycle the focus turns on the productisation of services. The idea behind the productisation is to stabilize entities more easily measurable management responsibilities. Good productisation is first step ahead to the concept of PBL (Performance based logistics) activities. This will require business model based on partnership.

The final stages of the life-cycle organization seek to maximize customer value through PBL services. Organization gains more responsibilities by PBL but on the other hand well done productisation has already shown the potential bottlenecks and risks related activities.

Keywords: dynamic capability, MRO, productisation, performance based logistics

References

Al-kaabi, H., Potter, A., & Naim, M. (2007). Insights Into the Maintenance, Repair and Overhaul Configurations of European Airlines. *Journal of Air Transportation*, *12*(2), 27–42. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=27247217&site=ehost-live

Helfat, C. E., Finkelstein, S., Mitchell, W., Peteraf, M. A., Singh, H., Teece, D. J., & Winter, S. G. (2007). *Dynamic capabilities: Understanding strategic change in organizations*. *Strategic Management Journal* (Vol. 18). http://doi.org/papers://BA75DBD3-74D3-4A2D-AAAC-910414082C6C/Paper/p11787

Schneider, S., Spieth, P., & Clauss, T. (2013). Business model innovation in the aviation industry. *International Journal of Product Development*, *18*(3/4), 286–310. http://doi.org/10.1504/IJPD.2013.055010

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, *28*(13), 1319–1350.