


Chapter 9

Business Transformation and Enterprise Architecture: The Holistic Project Asset Management Concept (HPAMC)

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ABSTRACT

This chapter presents the holistic project asset management concept (HPAMC)-based transformation projects to optimize asset/wealth creation/management in transformed enterprise system that is the result of research and development on 1) business case studies, 2) asset/wealth management, 3) business transformations, 4) applied mathematics/models, 5) software modelling, 6) business engineering, 7) financial analysis, 8) decision making systems, 9) artificial intelligence (AI), and 10) enterprise architecture.

INTRODUCTION

The HPAMC is based on an authentic and proprietary research method that is supported by an underlining mainly qualitative holistic reasoning model module; which is an AI/empirical process that uses a natural language environment that can be easily adopted by the project teams (Trad & Kalpić, 2019b; Myers, Pane & Ko, 2004; Kim & Kim, 1999; Della Croce & T'kindt, 2002; Trad & Kalpić, 2017a, 2017b, 2017c, 2017d; Gunasekare, 2015). The HPAMC is implemented in a proof of concept for the feasibility of the chapter using the HMM approach. The HPAMC supports Business Transformation Projects and Enterprise Architecture Projects (EAP) (or simply *Projects*). This chapter is supported mainly by an adopted fictitious case from the insurance domain (Jonkers, Band & Quartel, 2012a). The uniqueness of the authors' proposed HMM, promotes a holistic cohesive architecture and implementation model

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that supports complex HPAMC integrations (Farhoomand, 2004). The integrated Asset Management System (AMS) and Decision Making System (DMS) are used in a day to day business and technology problems solving. In this chapter, the proposed solution (or model) is supported by a real-life case of business transformation methodology in the domain of HPAMC that in turn is based on the alignment of various standards and avant-garde methodologies. The “i” prefix, which will be used later in this text, does not stand just for the common intelligent agile environments but for a distributed and holistic intelligent asset system’s approach that identifies this works background; and “a” will stand for assets. This research project’s main keywords are: 1) HPAMC and AMS; 2) Enterprise Architecture; 3) *Projects*; 4) Business Transformation Manager; 5) Applied Mathematical Model; 6) Neural Networks; 7) Holisms; 8) Risk Management; 9) Decision Making Systems; 10) Artificial Intelligence; 11) Knowledge Management Systems; and 12) Innovation. Using the scholar engine, in Google’s search portal, in which the authors combined the previously mentioned keywords and key topics; the results have shown clearly the uniqueness and the absolute lead of the authors’ methodology, research and works (Trad & Kalpić, 2019b). From this point of view and facts the authors consider their works on the mentioned topics as successful and useful; so the main topics will be introduced.

HMM for *Projects* uses a natural language development (testing and simulation) environment that can be adopted by any *Project*, and for that goal the authors propose to use the HPAMC that can be instantiated (in n instances) by an AMS, as shown in Figure 1 (Myers, Pane & Ko, 2004; Neumann, 2002).

The HPAMC is (or can be) supported by a central DMS/HMM and any type of Enterprise Architecture Projects (EAP). The Proof of Concept (PoC) is based on a concrete business case; where the central point is the transformation process of the existing legacy AMS into a modern and intelligent AMS (iAMS). Such *Projects* are managed by the Business Transformation Managers or an Enterprise Architecture Manager (simply a *Manager*); who are supported with a methodology and a framework that can support and estimate the risks of implementation of such *Projects*. The *Manager* is responsible for the implementation of complex *Projects* using iAMS; the HPAMC supports him or her (for simplicity, in further text – him) in a just-in-time manner where he should have a solid background in DMS based iAMS (Trad & Kalpić, 2016b).

BACKGROUND

To achieve the *Project’s* goals, resources management, technology components, cultural, financial and logistics integration strategy factors should be classified in Critical Success Areas (CSA) categories that contain CSFs that can be used to evaluate possible pitfalls and risks, to audit, assert, govern, automate, trace, monitor and control the iAMS. This research is considered as a pioneering and unique one and actually or even unfortunately, there is no similar frameworks, what confirms it lead; proposing a HPAMC that can be used for *Projects* in design and maintenance phases, which come after the finalization of

Figure 1. The relation between the asset pattern and asset management system



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