Architecting Enterprises for IT-Enabled Value Creation (Part 3)

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ABSTRACT

In spite of rapid strides in evolving Architecture processes that can help Enterprises leverage IT for creating Value, shortcomings are widely perceived. Parts 1 and 2 of this paper suggested four improvements in the processes for structuring enterprises, defining and measuring business value, ensuring maximal returns from IT assets and architecting them for value-oriented improvements, IT enabled. After summarizing the suggestions, this paper describes how those framework and processes elements were used to create, largely through IT, explicit above average value in an enterprise. The processes are elaborated, with special emphasis on how the initiatives were prioritized. The results indicate that the enterprise gained particularly from its extensive use of computers to apply science to its business beyond common transactional purposes. Finally, the authors analyze the business environment for the ‘emerging mega-vendors’ for IT services, examine relevant elements of their SWOT and make a few recommendations for new business models of a higher scientific intensity that leverage the ORMS-based servitizing of successful IT products and offer services that create measurable business value with reliability.

Keywords: Business Model, Business Strategy, Enterprise Architecture, Enterprise Engineering, Information Technology, Management Science, Value

1. INTRODUCTION

Parts 1 and 2 (SenGupta, 2011, 2012) of this paper examined widespread concerns from both business executives and IT practitioners that while IT spends were increasing, the value generated from IT was not clearly evident. As it is also widely recognized that IT is one of the most innovative assets for creating organizational value, the papers focused on reliable processes to convert IT capabilities and assets into tangible business value.

Four specific recommendations were made to augment the systematic and structured approaches to understand, architect and engineer the complex enterprises of today with respect to deploying IT to create business value for all their stakeholders. The processes are driven by

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goals of creating defined and measurable value; the leveraging of multi-dimensional partitioning to overcome the complexities of scale of large, increasingly globalized, enterprises; a matching and standardized performance measurement methodology and, finally, a detailed process by which the capabilities of IT assets are aligned to provide prioritized support for deciding, planning and executing the business processes that are the most mature in enabling widespread integration and collaboration.

Issues 1 to 3 of the list below have been covered in Part 1; 4 has been addressed in Part 2:

1. Structuring the Enterprise;
2. Business Value and its measurement;
3. Maximizing returns from IT assets;
4. Architecting for Value – IT enabled.

Here we study the application of the concepts through a case study and provide a recommendation for vendors providing IT services.

In the next section we suggest the Enterprise Architecture (EA) and Engineering (EE) baseline for the process undertaken in the case study by gathering the highlights from the earlier parts of the paper.

The following sections include a description of the Enterprise where the EA/EE was applied, a chronological description of the actual process steps, the approach to prioritization of initiatives and finally analysis of the results that indicated how using computers to support scientific business management provided discriminative strengths supporting growth.

Next we revisit our hypothesis that EA/EE exercises should be driven primarily by economic goals. We refer to another approach for SWOT-based business strategizing and analyze the approach for the case studied from that perspective.

In the final section, we draw some conclusions from the three parts of the paper in the context of the value provided by emerging mega-vendors of ICT services. As an example, we use the leading Indian vendor Tata Consultancy Services and the servitization of BαNCS, its most successful IT product. Again we show how using computers to introduce scientific methods of ORMS into banking can provide discriminative advantages to a leading Enterprise IT product. For the IT vendors, this would result from new Business Models of higher ‘scientific intensity’.

### 2. HIGHLIGHTS OF SUGGESTED FRAMEWORK FOR VALUE CREATION

Our historical analysis showed that ICT was born to address the Complexity of Scale in scientific ‘search’ and computation. However, transaction processing systems e.g. MIS, HRM, MRP, DRP, ERP, SCM, CRM, etc. then made computing and communications mainstream and addressed the complex scale, albeit of a lesser scale, and scope of information management in globalizing enterprises. Unfortunately, the value these systems create is often questioned. To ensure a more definite connect with value, performance and money, through Enterprise Architecture (EA) and Engineering (EE), the main features of the objective, process and framework were suggested thus:

1. Begin by postulating that the objective of EA and EE is to model and translate an organization’s business vision and strategy, through analysis and design, into an integrated process of enterprise evolution from an existing state to a future state with improved economic performance (Adapted from Allega, 2010);
2. The approach includes:
   a. A process indicating how to realize the economic goals;
   b. A framework for rationalizing on the various descriptive and behavioural concepts and specifications relevant to the process;
3. The approach covers (GERAM, ISO 15704, 1999; IFIP–IFAC, 1999):
   a. All industry sectors, especially manufacturing and services;
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