Chapter III

Modelling Business Processes

Need for Modelling

The modelling of business processes is vital not only for business process management, but also for implementation of enterprise systems. For example, when we look at the process life cycle introduced earlier, three of the seven phases involve business process modelling, to a large extent. But apart from that, the models that are generated in these three phases are used in all the seven phases of the business process management life cycle. The phases where these models are developed are in the second phase of process modelling; and it is used in the third phase, where we do the analysis; and is used in the fourth phase, where we improve upon the as-is models, come up with the to-be models, and model them, using whatever tools that are available. But then, the to-be models that are developed in the fourth phase are used in the process implementation phase, in the execution phase, in the monitoring phase, and even in the process identification phase, when you think of it as a life cycle.

Even when we think of implementing the enterprise system, we have to deal with models. We have the current situation models, we have the reference model, as provided by the vendor, we have the best business practice models, and using these, we come up with the to-be model. Thus, we have to deal with models even in the context of enterprise system implementation, which might be thought of as a life cycle that fits in within the life cycle of business process management.

Process modelling has especially come into vogue in the recent past, when we have focused all our energies on cross-functional, integrated information systems that span the entire organisation. In the past, when we had monolithic applications, which catered just to activities that went on within one single department or unit, the need for modelling processes wasn't as high. It was only the industrial engineer who went about modelling these processes to do reengineering and other activities. It wasn't looked on as a necessity till recently.

Need for a Modelling Framework/Architecture

Many frameworks and architectures have been proposed for modelling business processes and managing business processes: for example, CIMOSA, PERA, IEM, IRDS, OOIE and ARIS. These architectures and frameworks are essential if we want to have a guide for managing business processes and implementing enterprise systems. We need an architecture, or a framework, to guide us in the creation, analysis, and evaluation of business processes. And we need the architecture or the framework to support the development, optimisation, and implementation of an integrated information system to support the business processes.

Professor Scheer (1998) came up with the architecture of integrated information systems to overcome the problems associated with traditional business process modelling, as well as information modelling approaches. If we try to model all the complexity of a business process at the same time, the model can, quite quickly, become very large and incomprehensible. Hence, Professor Scheer suggested dividing up the business process model into different views: the data view, the function view, the organisation view, and the resource view.

Related Content

Planimetry of Economic States
S. Melnyk, I. Tuluzovand A. Melnyk (2015). *International Journal of Productivity Management and Assessment Technologies (pp. 16-24).*
www.irma-international.org/article/planimetry-of-economic-states/135257

Cultural Norms and Expectations Within the Hospitality Industry
Dalvony Duraes Alkmim Savicand Mihaela Dariescu (2020). *Trends and Issues in International Planning for Businesses (pp. 167-186).*
www.irma-international.org/chapter/cultural-norms-and-expectations-within-the-hospitality-industry/257176

Applications and Challenges Cyber Security in Digital Twin and IoT Environment
Yash Kumar Katara, Shruti Thapar, Ashima Tiwari, Ravinder Singh Maanand Jitender Jain (2025). *Accelerating Product Development Cycles With Digital Twins and IoT Integration (pp. 467-490).*
www.irma-international.org/chapter/applications-and-challenges-cyber-security-in-digital-twin-and-iot-environment/379262

Applied Sequence Clustering Techniques for Process Mining
Diogo R. Ferreira (2009). *Handbook of Research on Business Process Modeling (pp. 481-502).*
www.irma-international.org/chapter/applied-sequence-clustering-techniques-process/19706

Software Estimation Framework for Digital Enhancements and Maintenance Projects
Shailesh Kumar Shivakumar (2020). *International Journal of Project Management and Productivity Assessment (pp. 81-96).*
www.irma-international.org/article/software-estimation-framework-for-digital-enhancements-and-maintenance-projects/256512