

Designing Framework for Development of Lean ERP System

Abdulwahab Al Maimani
CEO, Founder
Al Muhandis Integrated Services
Muscat, 114, Oman
a.maimani@almuhandisgroup.com

Abstract

Nowadays, Enterprise Resource Planning systems are the framework of management of all businesses regardless of company size. ERP systems have evolved to be as crucial as water that keeps living possible. ERP systems has been defined as a common framework of data register that keeps records of user defined actions in the purpose of proper planning, monitoring, and controlling business processes. The system uses a common deployment schema across all ERP applets that feed into same database to eliminate duplications, and seamlessly retrieve data to be used for their intended purpose. The drawbacks of common ERP systems is that the collection of data is a time consuming activity where usually collects more information than what is needed, hence, they work as waste data, and consume digital space. Another drawback of the ERP systems is that the developers have worked to deploy applications to an extent where it is useful or applicable to the perspective of the developer with minimized interference with the end user; this ends up as having the end user to use functions, or use processes that do not seem optimally applicable to their business needs. This research works on designing framework for development of lean based ERP system that is oriented to optimized business processes, storage uses, aligned with business and individuals' goals, and optimally uses the architecture of database management systems to eliminate waste data collection. The research outputs consist of standardized checklists, process flow models, and standardized lean ERP architecture.

Keywords

Enterprise Resource Planning, ERP, Lean, SMEs, Business Process, Database Management,

Biographies

Abdulwahab Al Maimani is the CEO and Founder of Al Muhandis Integrated Services; the holding enterprise of Al Muhandis Group, Muscat, Oman. He earned B.E in Industrial Engineering from Sultan Qaboos University, Oman. Previously, we won several achievements with research title "Designing Optimum Tourism Packages for Oman Tourism Industry" that demonstrates uses of IE in the tourism sector. He has completed research projects in the field of Lean in healthcare industry, Lean Six Sigma project at Daleel Peteroleum, Lean Improvement at Petroleum Development Oman, and few research based approaches in the fields of Lean, Marketing, Sales, Engineering Design, and Creative Facility Planning and Management at Al Muhandis Group. His research interests include simulation, optimization, scheduling, lean, databases, entrepreneurship, innovation, and business processes. He is member of Oman American Business Center, and IEOM.