

Chapter 8

Change Management: Lean Digital Transformation

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ABSTRACT

Information is the driving force of organizations because it is in information systems that the decisions are made. The need to have adequate infrastructure for collection, storage, processing, and distribution in an organization means that an appreciable part of the organization's effort in terms of human and financial resources is channeled in this direction. This chapter aims at the development and consequent application of change management, for optimization of information and process management based on the Lean methodology in information systems. The analysis and implementation of infrastructure for information management is based on eliminating waste and activities without added value, thus imparting continuous improvement, in order to achieve the goals/objectives proposed towards excellence and success and optimization processes and services. In order to achieve the objective of this project, a survey and analysis of the requirements of the IT processes to be able to construct and implement change management are done.

INTRODUCTION

Over the years, automation and evolution of the industry, results from great technological changes, which allow the creation of bounding between human resources and financial resources. It is possible to produce more and better and at lowest costs, leading companies to invest increasingly in their Information Systems. The pressure on the industrial business sector is increasing nowadays, there is a strong competitiveness among sectors. Oftentimes, we have better-informed customers demanding, for short and tight delivery times at lower costs, and a very high level of quality standards of excellence. The implementation of the Lean methodology comes with the scope of reducing operations with no added value, by eliminating waste from processes, through methods, techniques, and tools (Whomack & Jones, 2003; Bell & Orzen, 2012).

DOI: 10.4018/978-1-7998-7452-2.ch008

Change Management

This paper aims to the objective to apply the principles of the Lean methodology and concept to the processes that leads to manage digital transformation, in order to create the strategies, methods, processes and increase the efficiency and effectiveness of the processes associated to the level business, eliminating or avoiding generated the traditional waste. So, Lean Digital concentrates instead on eliminating digital waste while maximizing data profit.

LEAN METHODOLOGY

The Lean concept emerged after the Second World War with the Toyota brand. So, after the Second World War, with the Japanese economy devastated, Toyota defined 7 types of waste and adopted a strategy to eliminate it (Ohno, 1988); (Teresko, 2006). This concept of waste elimination became the basis of the Toyota Production System. This concept was taken to the west under the name of Lean Manufacturing (Womark et al, 1990); (Dennis, 2002) ;(Liker & Meirer, 2007). Lean Management aims to satisfy customers in terms of product and service quality and to reduce simultaneously process lead times (Fane, 2003).

The predefined objective of reducing non-productive times, disorganization, uncontrolled production that fosters and creates excesses. The lack of quality standards and excess production, creates tools and concepts discussed in all organizations of our era, either by consulting firms organized by internal teams of continuous improvement (Bell S., 2006). So, the main objective is to produce flexibly at the lowest possible costs, so it can be possible to become a competitive company. (Liker, 2004).

For an example, after the end of the Second World War, the Japanese industry had very low production levels, and suffered from an excessive scarcity of resources, after been defeated by the Allied forces, by the other way the United States of America and Europe applied mass production policies (Pinto J. P., 2010) and the economy was growing faster. So, in order to overcome the market instability and the post-war crisis, a Japanese company called Toyota Motor Corporation emerged.

Lean Thinking

Toyota had some emerging problems, (Ohno, 1988) and like today, which is an example in terms of efficiency and quality in the production of motor vehicles. Eiji Toyoda visited the Ford plant in Detroit in the United States of America and considered using the knowledge gained in his organization, but, after several observations and discussions with his best engineer, Taiichi Ohno, realized that mass production would not be the best path solution for Toyota, so the Japanese ended up realizing that it was necessary to face other markets, because they had to produce at low cost and price, and diversify the variety as best as they can.

Based on this innovative production model that the Toyota Production System was created. The term “Lean Thinking” was used to refer to the evolution of Toyota Production System (TPS) and the introduction of new concepts (Dennis, 2002) ; (Fane, 2003). Lean Production was defined as a production system that combined the advantages of the mass production system with the advantages of the handmade production system (Liker, 2004). Lean seeks a constant elimination of all types of waste, it is considered an “antidote to waste” according to (Whomack & Jones, 1996-2003), where waste refers to any human activity that does not add value. As far as known the concept was expanded to include not only human activities, but also all types of activities, resources, and processes that are used improperly,

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