Abstract

This paper presents a review of the literature on lean leadership practices. We begin with a brief review of the literature on lean origins and history, followed by a quick introduction to lean principles, building blocks, and prominent implementation frameworks in the literature, and conclude by reviewing the scarce literature on the focused subject of lean leadership in terms of tools, practices, attributes, and frameworks. A critical gap has been identified in the literature with regards to a holistic and practical leadership model for companies that are willing to make a changeover to a lean business system. This review reveals the need for a meticulously developed leadership model based on empirical evidence. It also discusses the necessity of developing new lean tools for leadership or adapting the existing lean tools to leadership tasks.

Keywords:
Lean leadership; Lean management; Lean culture; Barriers to lean; Lean failure; Lean success; Lean culture

Introduction

As a business grows, inevitably the whole system including the organizational structure, functional interactions, the nature and range of products, customer relationships, and its other components, become more complex and difficult to manage. This complexity in most cases diminishes an organization’s flexibility to change and typically decreases its performance eventually down to a level which threatens its viability. Competent and smart business leaders recognize the need for improvement or change initiatives early on the path. Nevertheless, substantiated by available facts, in most cases this vital need is ignored until a severe crisis emerges. Over the decades, different approaches and methodologies for change have been developed and deployed. Change methodologies that are well-known today, such as TQM, Six Sigma, and lean, are all formally coded and documented in the scientific management era after the 1880’s. Although each of these methodologies has gained success to some extent, they are either limited to isolated improvement projects at particular points of time, or are ambiguous when it comes to application and implementation.

Lean is one of the prevalent and reputable change methodologies that originated in manufacturing known then as lean manufacturing but later evolved to a continuous improvement process affecting all aspects of a business system. Today, this is generally referred to as lean thinking or lean management. Lean thinking, as a comprehensive and continuous change strategy, touches every aspect and every function of a business. Therefore, unlike other change methodologies, lean is not just a collection of disconnected improvement projects. Nonetheless, lean has not been as successful as expected in delivering the promised results.

Lean’s pioneer, Toyota and some of its successors, such as Wire mold, have reaped astonishing benefits from using lean as their change strategy and these had not been ‘lucky’ incidents because they have been able to repeat their success frequently in their several attempts and they also have been successful in sustaining the benefits over a long period of time. However, in striking contrast to a few significant success stories, the majority of the attempts for lean transformation either fail remarkably or at least fail to live up to the initial expectations. In fact, an extensive survey done by Industry Week in 2007 reported that only 2% of the lean programs lived up to the expected results. Lean principles and tools might sound simple, but in practice most organizations either fail at the initial implementation or fail to sustain the benefits.

Methodology

Seven database search engines were mainly used for the purpose of searching literature: (remove this or else explain why this industry), Google Scholar, IEEE Xplore, Scopus, ScienceDirect, Emerald, and Engineering Village.

As a result of the searches, initially 86 papers and
articles were quickly reviewed; out of which 48 were shortlisted as the most relevant and informative. Besides the shortlisted papers, 15 books were identified as containing relevant information and were used along the papers as references for this literature review.

Conclusions

It has been more than 25 years since Womack and Jones brought Toyota Production System (TPS), also referred to as 'lean', under the academic spotlight. However, despite an abundance of books, articles, and papers that try to conceptualize lean or offer a quick lean prescription, soft aspects of lean including change management, respect for people principle, lean culture, and leadership requirements are hardly discussed. Alarmingly, a low success rate of lean endeavors has been the driving force behind a wealth of researches for exploration of root problems. Dominated by the human-related and intangible elements of lean, the identified failure causes and barriers confirm existence of the same problem in the industry. Leadership with the highest influence over all the human aspects is one of the top-priority research topics in this regard. However, as there are scarce resources on this subject matter, this literature review evidences lack of sufficient attention to the imperative of lean leadership by the scholars and lean authors.

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