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Review

Lean implementation within manufacturing SMEs in Saudi Arabia: Organizational culture aspects

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## Lean implementation within manufacturing SMEs in Saudi Arabia: Organizational culture aspects

There is a scarcity of research about cultural aspects and organizational culture related to Lean Implementation (LI) (Pakdil and Leonard 2015). The purpose of this paper is divided into four stages. First, to identify the influencing aspects of Lean Implementation (LI). Second, aggregate the aspects into themes. Third, gauge the current perception of participants against the themes. Finally, identify a culture position that manufacturing SMEs should aspire to for the most effective Lean Implementation (LI). In order to address the need for Organizational Culture (OC) to better facilitate Lean and propel its success among Small and Medium Enterprises (SMEs) in Saudi Arabia as a case, grounded theory, action research and an inductive approach has been selected. Due to the nature of the topic requiring the exploration of culture, it is beneficial to utilize qualitative research which is provided by grounded theory that has been adopted. Thus, adhering to the grounded theory process utilising an issue focused approach, (Sackmann, 1991), twenty-nine semi-structured interviews and two focus-groups were chosen to conduct this exploratory study and a questionnaire which has been derived from the second focus group to gauge the OC themes within the SMEs. A total of 71 responses were returned. A literature review identified the ideal position for the themes. An inter-rater reliability to validate data. The findings of the semi-structured interviews were 37 aspects that influence the implementation of Lean in manufacturing SMEs within Saudi Arabia. In addition, the 37 aspects were aggregated into 7 themes in the first focus group. Moreover, the result form questionnaire indicates many issues that were identified, all the results were in the dissatisfaction area. The lowest scoring theme was *change management and behaviour patterns*. This paper contributes to the ideal position for the manufacturing SMEs where it should be to aspire to the most effective Lean.

**Keywords:** Organizational Culture (OC); Lean Implementation (LI); Small and Medium enterprises (SME); King Saudi Arabia (KSA); Grounded theory.

### 1. Introduction

Implementing Lean into manufacturing within Small and Medium sized Enterprises (SMEs) within Saudi Arabia faces difficulties (Karim *et al.*, 2011). Organizational Culture (OC) is one of the most important factors to focus on to facilitate the implementation of Lean within Saudi Arabian manufacturing (Karim and Arif-Uz-Zaman, 2013). Moreover, the culture of an organisation plays a vital role for managers facing the challenge to change that culture (Graham-jones and Muhareb, 2015). It is necessary to have a feasible Lean framework to assist SMEs to successfully implement Lean (Pingyu and Yu, 2010). In addition, the main challenge faced by SMEs in KSA was changing OC and peoples' mind-set (Alkhoraif, 2016; Albliwi *et al.*, 2017; Alkhoraif and McLaughlin, 2017). Studies have shown that many researchers are in agreement that an Organizational culture which does not support Lean is a large reason for the failure of successful Lean Implementation, (Munene, 1995; MacDuffie and Helper, 1997; Dixon, 1999; Brown, Willis and Prussia, 2000; Womack, J., & Jones, 2003; Schonberger, 2007). For the purpose of this paper SMEs refer to organisations with fewer than 250 employees where European Commission definition adopted, (European Commission, 2011) Saudi Arabian government as part of its vision from now to the year 2030, to improve and find quality solutions for SMEs. The objective of these manufacturing firms is to develop, be competitive and to increase its contributions of the Gross Domestic Products (GDP) from 20% to 60%, (Government, 2015). In addition, the intention is

to increase the private sectors GDP contributions from 40% to 65% by raising the share of non-oil exports from 16% to 50% (ibid). It is important to clarify that the GDP of the Kingdom of Saudi Arabia (KSA) was estimated at Saudi Riyal (SR) 608 billion in 2015 - 2016 (\$ 162.133 billion) (Finance, 2015). The exploring and gauging will be designed for SMEs, but it will be built at a generic scale to suit other cases as well. The article should have as few size constraints as possible, and to create it there will be a need to discover as many inhibiting factors as possible. These inhibiting factors, and indeed those factors that encourage this behaviour can be graphically displayed and tabulated, allowing deeper analysis of each, to find its roots and, where necessary, remove it from the company culture (Hietschold *et al.*, 2014). In addition to that, many factors explain why this research was conceived:

- The success of Lean implementation will not just be based on applications, tools and techniques, but also on the top management's involvement, leadership and Organizational culture (Jadhav, *et al.*, 2014).
- Culture is the key factor to making the changes for Lean implementation (Pakdil and Leonard, 2015).
- Lack of research regarding the critical factor of Organizational culture related to Lean implementation (Pakdil and Leonard, 2015).
- Lack of knowledge and difficulties in implementing Lean in the Middle Eastern and Gulf countries, but also and increasing concern of Lean implementation in SMEs, (Al-najem, 2014)

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