

# **Evaluation of Lean Six Sigma Implementation at Healthcare Sectors: A case Study of Two Tertiary Hospitals in Oman**

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## **Abstract**

**Purpose**– This paper aims to evaluate the current implementation of Lean Six Sigma (L6 $\sigma$ ) in two tertiary hospitals in Oman that used this concept recently as part of its quality improvement initiatives.

**Design/methodology/approach**– The study has used a questionnaire consisting of 112 questions under two sections. The first one was about pre-implementation of L6 $\sigma$  which is consisting of two dimensions; identifying service and mapping value streams. The second section was about evaluation of L6 $\sigma$  by using DMIAC process. In fact, the answer of each question was recorded as Good Point (GP) if it was YES or Bad Point (BP) if it was NO. Consequently, BPs are distributed into Problem Categories (From PC1 which is the worst to PC-5 which the lowest).

**Findings**– The results have shown that 50% of the quality managers' answers were recorded as GPs whereas the second half was BPs in different PCs. There were no PC-1 answers that indicate serious problems in L6 $\sigma$  implementation in both hospitals. The answers were distributed under PC-2, PC-3 and PC-4. The study has recommended that L6 $\sigma$  teams have to give more attentions during value streams mapping in the new projects to increase the effectiveness of L6 $\sigma$  implementation.

**Originality/value**– To the best of authors' knowledge, no study has evaluated the current implementation of L6 $\sigma$  in Oman's hospitals. These results assist L6 $\sigma$  teams in healthcare sectors to reach performance improvement against a best practice benchmark.

## **Keywords**

Lean Six Sigma (L6 $\sigma$ ), Healthcare sectors, Oman, Sultan Qaboos University Hospital (SQUH) and Royal Hospital (RH)

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## **Biographies**

**Yousuf Al Khamisi** earned a BsN degree in Science from the Sultan Qaboos University (SQU), Muscat, Sultanate of Oman. He also holds a MBA from College of Waljat, Oman. He earned an assistant Fellow Certificate from Higher Education Academy, UK in 2017. He has been involved with a number of quality management projects while working in Sultan Qaboos University Hospital, Oman. He is currently a PhD student within the School of Engineering, University of Bradford with research interests in Knowledge-based systems, Lean Six Sigma, quality management, and healthcare organisations.

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