

Applications of Waste Relations Matrix (WRM) in Lean Wastes Identification

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Abstract

This research paper presented the applications of Waste Relations Matrix (WRM) in the identification of seven deadly wastes of lean manufacturing. This narrative research is based on the review of previous studies. Literature review is summarized, discussed and presented in tables. Since, the seven deadly wastes of lean manufacturing have been the severe problem in industries due to their association with the production performance; thus it has been the focus of academicians and practitioners to study and implement such waste identification philosophy. Since, lean manufacturing is an effective waste elimination technique and its tools have captured the immense attention of academicians and practitioners for manufacturing wastes reduction. Therefore, there is an extreme need to conduct such studies about the usefulness and drawbacks of the implementation of lean practices. In future, other lean practices can be discussed in depth to put clearer and broader picture and to draw more comprehensive conclusion. Moreover, existing studies lack to investigate the implementation in various sectors. Studies related to WRM are significantly important in development of lean wastes knowledge due to individual sectors have major differences in their processes. In this regard, present review is conducted so as to put the open and broader picture of Waste Relations Matrix (WRM) comprehensively.

Keywords:

lean manufacturing; Waste Relations Matrix (WRM); Wastes; six sigma.

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Biographies

Muhammad Ali Khan currently works as Assistant Professor in the Department of Industrial Engineering and Management, Mehran UET, Jamshoro, Sindh, Pakistan. He has sixteen years university teaching experience. He has supervised more than a dozen theses at undergraduate level. He is pursuing his PhD in the same department. He has completed his Bachelor of Engineering, Post Graduate Diploma and Master of Engineering in Industrial Engineering and Management. He has also completed his MBA in Industrial Management from IoBM, Karachi, Pakistan. He has authored various research papers for conferences and journals. He has participated in many professional seminars, workshops, symposia and trainings. He is registered with Pakistan Engineering Council and many other professional bodies. He does research in diversified fields of Industrial Engineering. The current projects are related to Lean manufacturing, Six Sigma, Project management, Operations management; MIS and Entrepreneurship. He has also earned various certifications in his areas of research.

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