

CITY UNIVERSITY OF HONG KONG

香港城市大學

Factors Influencing the Adoption of  
Lean Manufacturing: Evidence from  
a Chinese Manufacturing Firm

影響精益生產之採用因素：  
以一間中國製造商為實證研究

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## ABSTRACT

Lean Manufacturing is a business philosophy that numerous manufacturing firms worldwide have adopted to improve their manufacturing processes and to remain competitive in the increasing intensity of competition in global market. However, a previous study determined that Lean Manufacturing was not prevalent in Chinese manufacturing firms. This study determined the major factors influencing the adoption of Lean Manufacturing in Chinese manufacturing firms.

The literature on manufacturing practices seems to focus on certain aspects, such as management style and organizational culture to identify factors influencing the adoption of manufacturing practices, and has rarely explored the key factors in a holistic approach. Thus, few studies have provided practitioners with practical guides for successful implementation of manufacturing practices. This study is one of the first to explore and identify empirically the key factors influencing the adoption of Lean Manufacturing based on a multi dimensional conceptual model (TOE Framework).

In the study, three exploratory case studies were conducted at a Chinese manufacturing firm located in Huizhou China that has been increasing efforts towards

implementing Lean Manufacturing since 2011. To be credible, we conducted the exploratory case study research based on a 1-year direct field observation and 22 in-depth interviews with employees who were participated in three Lean Manufacturing adoption programmes. Not all of the three Lean Manufacturing adoption programmes were successful; two of the programmes were successfully adopted, whereas the other failed. Thus, analyzing the data collected from the three cases and contrasting the different results are worthwhile. The results indicated that relative advantage and compatibility are two essential technology characteristics that facilitate the adoption of Lean Manufacturing practices. In addition, people do not prefer to perform complex work but complexity can be overcome by considering the positive factors of the availability of external resources. On the other hand, the study found that organizational support, quality of human resources and management involvement are three major organizational factors that facilitate the adoption of Lean Manufacturing practices. Finally, opinions collected from participants at the case company suggested that stakeholder pressure and the availability of external resources accelerate the adoption of Lean Manufacturing practices.

In short, the study identified eight key factors that are considered to have significant influence on the adoption of Lean Manufacturing practices. This thesis also describes

how successful Lean Manufacturing practices can enhance manufacturing firms' competitive advantage. Hence, these results should be of considerable interest to practitioners. It is, however, considered that the research's findings, which are based on the case study of a selected Chinese manufacturing firm, should not be interpreted as indicative of the characteristics of Chinese manufacturing firms in general.