Abstract

There are several research and studies about the critical success factors of product development in both industrial and service sectors. However, the research and studies about the critical success factors of product development for Electronics Manufacturing Service providers are quite limited especially for Thai Electronics Manufacturing Service providers.

This thesis focuses on the study of the critical success factors of product development in Thai Electronics Manufacturing Service providers based on the assumption that the specific product development process for each business is critical for the success. The Electronics Manufacturing Service providers and other businesses in the same industrial sector or even different sectors in Thailand could, at a certain degree, apply the results and discoveries derived from this research to their product development. Stars Microelectronics (Thailand) Public Company Limited is the case study in this thesis. This company has been an Electronics Manufacturing Service provider in Thailand, for approximately 10 years, which is managed by Thai Executives, and the majority of the shareholders is Thai.

The thesis begins with the study on the critical success factors for product development in the electronics and electrical industry. The study bases on the review of the relevant literatures, case studies and the interview with the specialists in the Stars Microelectronics (Thailand) Public Company Limited. The specialists are, for example, the top executives, department managers and engineers. The conceptual model for this research is created from the critical success factors derived from the study. Those critical success factors are analyzed by a tool called Analytical Hierarchy Process (AHP).

It is discovered by this research that the critical success factors for product development in Thai Electronics Manufacturing Service industry are (in sequential order of the scores derived) – product development organization, planning and project selection, strategy or objectives of product development, the coordination of internal

and external human resources, supportive culture and working environment for product development, and the work guideline for the people working in product development function. From the research findings, product development organization, planning and project selection, and strategy or objectives of product development are the top 3 factors receiving the highest score. The scores of the 3 factors are quite close.