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Chapter 11

A Case Study of Singapore's Automotive Supply Chain: Preliminary Analysis and Findings

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EXECUTIVE SUMMARY

This chapter aims at examining Singapore's capabilities in automotive supply chain. A thorough economic analysis of the automotive industry worldwide has been conducted in this study to identify the potential facilitating and inhibiting factors for automotive supply chain in future. Also, the study discusses the automotive supply chain in Asia Pacific region in detail and its impact on Singapore's automotive supply chain. Based on the analysis, the study presents several recommendations for Singapore's participation in automotive supply chain. Specifically, the results of this study suggest that Singapore can build its competence in manufacturing electronic components for automobiles as it is one of the leading semiconductor hubs in the world, a leading logistics port, and is well connected with countries all

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over the world.

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1. INTRODUCTION

After the Second World War, the auto industry was seen as both a pillar and a beneficiary of economic growth for many developed and developing countries. The major chunk of this market (approx. 60%) is captured by the Big Three (Ford, GM and Toyota). Although they are the market leaders in their home country, their global sales have been declining steadily with Japanese and German manufacturers making major inroads in their share. Even their captive market of consumer-oriented light truck product, the “sports utility vehicle” (SUV) is being stolen by these Japanese and German manufacturers. The automobile industry also witnesses the disappearance of the smaller U.S. and European producers and surge in imports, especially from Asia. These smaller manufacturers have been replaced by “transplanted” units of Japanese, German and Korean companies, which now hold significant share of vehicles sold in western countries.

Most of the major automobile companies now compete globally, through cross-ownership and investment in manufacturing plants rather than through trade in finished vehicles. They also compete through what a 2004 Commerce Department report described as global supply chains. This study analyzes the present global auto supply chain with specific focus on Singapore. A thorough investigation has been carried out in this scenario to capture the behavior of global auto supply chain.

The paper is organized as follows. Section 2 presents a detailed literature review. Section 3 discusses research scope. Section 4 discusses Auto supply Chain in the international context as well as in the Asia Pacific (APAC) and Singapore. Section 5 discusses the Porter's five forces model pertaining to Singapore. Section 6 presents the conclusion and discusses future extensions of this research work.

2. LITERATURE REVIEW

This section presents a comprehensive review of literature related to supply chain, global auto supply chain, issues in global auto supply chain and some of the key factors that affect global auto supply chain.

2.1. Literature Review on Country-wide Supply Chain

The 21st century logistics framework has been developed as an exploratory study towards leading logistics practices in USA through qualitative research (Bowersox et al. 1999). Since its introduction a number of authors have applied the framework to international environment. Table 1 shows the issues discussed in region-wide supply chains.

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