



LOCALIZATION OF LIGHTING MANUFACTURING AND ITS IMPACT ON INDUSTRIAL COMPETITIVENESS IN SAUDI ARABIA

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Chapter 1: Research Framework

1.4 Research Questions

This study aims to answer the following questions:

1. How does localization of lighting manufacturing impact industrial competitiveness in Saudi Arabia?
2. What are the key challenges limiting the localization of lighting manufacturing in the Kingdom?
3. How does the development of a local manufacturing ecosystem influence supply chain resilience?
4. To what extent can localization reduce dependence on imported lighting products?

1.5 Research Objectives

The main objective of this study is to examine the role of localization in enhancing industrial competitiveness within the Saudi lighting industry.

The specific objectives are:

1. To analyze the impact of manufacturing localization on industrial competitiveness.
2. To identify the major barriers to localizing lighting manufacturing in Saudi Arabia.
3. To evaluate the role of supply chain and ecosystem development in supporting localization.
4. To assess how localization can contribute to reducing import dependency in the lighting sector.

1.6. Research Hypotheses

Based on the research problem, the study proposes the following hypotheses:

- H1:** Localization of lighting manufacturing has a positive impact on industrial competitiveness in Saudi Arabia.
- H2:** Development of local manufacturing capabilities improves supply chain resilience.
- H3:** Localization of lighting manufacturing reduces dependence on imported products.

Chapter 2: Literature Review

2.1 Introduction

The concept of industrial localization has gained increasing importance in recent years, particularly in emerging economies seeking to enhance competitiveness and reduce reliance on imports. Localization refers to the process of developing domestic manufacturing capabilities to replace imported goods and strengthen national industries. In the context of Saudi Arabia,

localization has become a strategic priority aligned with Vision 2030, aiming to diversify the economy and promote sustainable industrial growth.

2.2 Industrial Localization

Industrial localization is widely recognized as a key driver of economic development and competitiveness. According to Porter (1990), national competitiveness is strongly influenced by the ability of industries to develop local capabilities, innovate, and improve productivity. Localization enables countries to retain value within their economies, reduce dependency on external suppliers, and stimulate industrial growth.

Studies on localization highlight its role in strengthening domestic industries by encouraging investment in manufacturing infrastructure, workforce development, and technological capabilities. In emerging markets, localization is particularly important as it supports industrial diversification and enhances economic resilience (World Bank, 2020).

2.3 Manufacturing Competitiveness

Manufacturing competitiveness refers to the ability of firms or industries to produce goods efficiently while maintaining quality and cost advantages in the global market. Factors influencing competitiveness include cost efficiency, supply chain integration, innovation, and access to raw materials.

Porter's theory of competitive advantage emphasizes that industries achieve competitiveness through productivity improvements, innovation, and the development of supporting industries. In this context, localization contributes to competitiveness by reducing production costs, improving supply chain responsiveness, and enabling faster innovation cycles.

2.4 Supply Chain Ecosystem

A strong manufacturing ecosystem is essential for successful localization. The ecosystem includes suppliers, manufacturers, logistics providers, and supporting industries such as tooling and component production. Without a well-developed ecosystem, industries remain dependent on imports, limiting their ability to compete effectively.

Research indicates that supply chain integration and local supplier development play a critical role in enhancing industrial performance. The presence of upstream capabilities such as component manufacturing, die casting, and material processing significantly improves production efficiency and reduces lead times.

2.5 Import Dependence and Localization

High reliance on imports exposes industries to supply chain disruptions, price volatility, and external risks. Localization helps mitigate these risks by developing domestic production

capabilities. Studies have shown that reducing import dependency strengthens economic stability and enhances national resilience.

In Saudi Arabia, industrial policies have increasingly focused on reducing import dependence through localization initiatives. However, achieving this goal requires significant investment in manufacturing capabilities and ecosystem development.

2.6 Conclusion of Literature Review

The literature highlights that industrial localization is a critical factor in enhancing competitiveness, strengthening supply chains, and reducing import dependency. However, successful localization requires more than assembling products locally; it depends on the development of a complete manufacturing ecosystem, including upstream industries and advanced production capabilities.

This study builds on existing literature by examining how localization can transform the Saudi lighting industry from an assembly-based model to a fully integrated manufacturing ecosystem.