



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

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1. Introduction

Saudi Arabia has accelerated its efforts to diversify its economy and reduce dependence on imports through industrial localization initiatives aligned with Vision 2030. The manufacturing sector has been identified as a strategic pillar for sustainable economic growth, job creation, and technological advancement. Within this context, the lighting industry represents a significant industrial opportunity due to its large market size, continuous infrastructure demand, and integration with construction, energy efficiency, and smart city development.

The Saudi lighting market is estimated to be between 6 and 8 billion SAR annually, yet more than 75% of lighting products and components are imported. Local manufacturers largely rely on importing finished or semi-finished parts and performing final assembly domestically. This model limits value creation, weakens supply chain resilience, and restricts the development of advanced manufacturing capabilities within the Kingdom.

Global manufacturing dynamics are shifting. While China has dominated lighting manufacturing due to cost advantages and industrial clustering, rising labor costs and global supply chain risks are reducing its competitiveness. Saudi Arabia now possesses several competitive advantages including competitive labor costs, availability of raw materials such as aluminum, steel, plastics, and glass, modern industrial infrastructure, and strong government support for localization and industrial development.

Despite these advantages, the Saudi lighting industry continues to face structural challenges that limit full localization. The primary gap lies in converting raw materials into finished lighting components. Critical upstream capabilities such as aluminum die casting, precision injection molding, and specialized tooling remain limited. Strengthening these capabilities is essential to developing a fully localized manufacturing ecosystem.

This study is shaped by my direct involvement in the Saudi lighting industry. As Chief Executive Officer of National Lighting Company and Chairman of the Board of the National Lighting Manufacturers Association in KSA, I have witnessed firsthand the structural challenges, supply chain gaps, and significant opportunities facing the sector. My experience has provided practical insight into localization efforts, industry collaboration initiatives, and ecosystem development strategies aimed at positioning Saudi Arabia as a regional hub for lighting manufacturing. Integrating these real-world observations with academic analysis enables a deeper understanding of the industry's localization potential and its impact on national competitiveness.

2. Research Problem

Although Saudi Arabia possesses the economic resources, raw materials, and industrial infrastructure necessary to support local manufacturing, the lighting industry remains

heavily dependent on imports. Most local companies operate using an assembly-based model that relies on imported components, limiting value creation and exposing the sector to supply chain disruptions and price volatility.

The absence of a fully developed upstream manufacturing ecosystem, particularly in aluminum die casting, advanced component conversion, and specialized tooling, represents a critical barrier to localization. Without these capabilities, local manufacturers cannot transition from assembly operations to full-scale production, preventing the creation of a complete domestic supply chain.

This study therefore seeks to examine how developing a localized lighting manufacturing ecosystem can enhance industrial competitiveness and reduce import dependence in Saudi Arabia.

3. Research Significance

3.1 Theoretical Significance

This study contributes to academic understanding of industrial localization, manufacturing competitiveness, and supply chain resilience in emerging economies. It provides insights into how ecosystem development and local manufacturing capabilities influence national competitiveness and industrial sustainability.

3.2 Practical Significance

The findings of this study can assist policymakers, investors, and industry leaders in developing strategies to accelerate localization and strengthen the domestic manufacturing ecosystem. Enhancing local production capabilities can reduce import dependency, improve supply chain resilience, stimulate technology transfer, create skilled employment opportunities, and position Saudi Arabia as a regional and global hub for lighting manufacturing.

4. References

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