Chapter 1
Co-Existence: Challenges and Opportunities Chinese Design Education Faces

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ABSTRACT

This paper discusses the design capability challenges that are needed to be overcome by China to transform its current process type manufacturing industries into an innovation-design capabilities facilitated third phase industrialization process. This paper will discuss: 1) China’s industrialization process in the context of the relationships between industrialization and innovation and the role that design capabilities play in facilitating the transformation of innovation into globally competitive products; 2) current weaknesses and challenges faced by design education in China and design capabilities needed to be developed to support an industry that is driven by innovation; 3) opportunities and recommendations for future actions.
INTRODUCTION

There is a growing awareness in developing countries that their industrialization process will stagnate unless they can leapfrog from a process type manufacturing generated by foreign-owned or foreign-controlled industries into a locally-owned industries innovation-driven-push process. Generally the industrialization process can be categorized into three phases:

1. The beginning of the mechanization of labor during the first phase,
2. Learning to improve the efficiency and effectiveness of the manufacturing process during the second phase and
3. The emphasis on innovation and creativity for the generation of new technology, new processes and new products in the third phase.

Cognizance of the noticeable trends in these phases is significant to our discussions of the role of design capabilities education in supporting an innovation push industrialization process. This paper discusses the design capability challenges that are needed to be overcome by China to transform its current process type manufacturing industries into an innovation-design capabilities facilitated third phase industrialization process. This paper will discuss:

1. China’s industrialization process in the context of the relationships between industrialization and innovation and the role that design capabilities play in facilitating the transformation of innovation into globally competitive products;
2. Current weaknesses and challenges faced by design education in China and design capabilities needed to be developed to support an industry that is driven by innovation; and
3. Opportunities and recommendations for future actions.

BACKGROUND

- **China’s Industrialization, Innovation, and Design Capabilities**: Bai (2011) referred to China’s first phase of industrialization as “processing trade” where the main manufacturing capabilities are limited to processing of imported materials, parts and components, accessories and packaging materials from abroad and exporting the finished product. The attractiveness of China as the “world’s biggest workshop” (p.22) at the height of “globalization” is the pull factor of abundant low cost labor supplies and cheap real estate. This phase of
Smart Specialization Strategies and Universities: Searching for New Theoretical Foundations

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