Chapter 7

Industry: Academia Partnerships in Design Education

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ABSTRACT

“Industry-academia partnership” refers to the cooperative relationships between universities and enterprises during economic development. The purpose of this study is to establish a cooperative channel, strengthen the two-way exchanges between universities and enterprises, and highlight their complementary relationship. Universities shall guide enterprises toward correct operational philosophy, and assist industrial upgrading and economic development, while enhancing the research level of universities. As a result of this study, industry-academia partnership integrates social resources to give full play to mutual exchange between economic functions and social adaptations in order to promote industrial upgrading.
INTRODUCTION

Basically, the goal of university education is to cultivate talents that meet the needs of nations and provide new blood to leading industrial and scientific R&D. However, are talents trained by universities truly consistent with the requirements of a knowledge economy era in terms of expertise and capacity? Furthermore, does the mode of universities leading scientific R&D advance with the times? If not, from the perspective of effective management, the establishment of an appropriate “platform of industry-academia partnership” would be the solution.

Industry-academia partnership has become a vital and expanding topic in Taiwan. Especially, since Taiwan passed the “Fundamental Science and Technology Act” in 2011, which clearly defined the transfer of ownership of intellectual property rights and the outcome from the National Science Council (NSC) to research institutions or enterprises, meaning more cooperative programs have been implemented between universities and industry. If we extend the meaning of the First article of the University Act, universities must maintain basic research, and consider priority and practical research fields in order to support the development of national competitiveness and meet the demands of the rapid development of new technologies. Therefore, the research results of universities shall be converted into new technologies and practical products. If a win-win solution can be found between universities and industry to coordinate the advancement of teaching, research, and production, the development, transformation, dissemination, and application of knowledge and information can be improved in order to drive the rapid development of technology and economy.

In recent years, developed countries have paid attention to industry-academia cooperation, stressed the enhancement of research application results, and driven the growth of industry and national competitiveness via the cooperation of enterprises and universities (Hsiao, 2000). In response to international and regional economic integration, the agenda of new economic and trade orders, such as the WTO, and the impact brought about by newly emerged industrialized countries, enterprises shall strive to improve their technologies and R&D capabilities in order accelerate industrial upgrading (Chen, 2001).

Today Taiwan’s economy develops towards the goal of globalization. Taiwan goes through economic reform from traditional economy to new economy, which affects the change and innovation of design education in Taiwan. In early phase, Taiwanese government provided basis for industrial development through state-owned enterprises. In the era of original equipment manufacturer (OEM), Taiwan engaged mainly in pure OEM without product design. Design and formula was provided by commissioned factories. Manufacturers produced products to meet the needs and requirements enterprise customers, which were sold with the trademark of the enterprise customers. (Reference: Economic Globalization. Chapter One: Economic Globalization. Chapter One:
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