Chapter 23
Generating Competitive Advantages for the Polytechnic Universities in Mexico

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ABSTRACT

This chapter proposes an analytical framework to understand the trade-offs of a firm dedicated to educational services for creating and sustaining a superior performance respect to its competitors. The proposed approach focuses on polytechnic universities as the firm understudy. Based on a statistical data from Mexican government, the five forces of Porter methodology is applied to found the clients, suppliers, new entrants, substitutes, and rivalry of the Polytechnic University of Puebla (PUP). In this scenario, the existing strengths are detected and the target of the firm to get a sustainable competitive advantage is defined. Finally, the strategies to break the barriers are proposed. The authors argue that by using those strategies the wedge between willing to pay of the clients and the opportunity costs of the suppliers can be improved. Additionally, they argue that the positioning (consolidation and reputation) of the PUP is achieved by applying the proposed strategies.

INTRODUCTION

In 1980, Michael E. Porter introduced the "Five-Forces" framework as a way to explain the average profitability of firms in a given industry (Porter, 1998). First, an industry's profitability does not depend on only sellers and buyers, but on a three-step chain of suppliers, sellers (competing firms) and buyers (customers). Second, industry profitability is driven by intense competition, which in turn dictates the number and size of competing firms. Third, entrance barriers and substitutes directly affect the intensity of competition. Besides, the formulation of a strategy needs the evaluation of the attractiveness of an industry through the analysis of the intensity of competition among competing firms, the bargaining

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power of suppliers, the bargaining power of buyers, the threat of potential entrants, and the threat of substituting products (Wimmer, Lee, Quella, & Polak, 2010; Maritan & Peteraf, 2016; Ranjith, 2016; Pinch, Henry, Jenkins, & Tallman, 2003; Jannesson, Nilsson, & Rapp, 2014; Lazonick & West, 1995).

Additionally, a competitive advantage comes from a firm's ability to add value to products or create a higher value than its competitors (Parniangtong, 2017). This additional value cannot be substituted or imitated by any other firms. In order for a business to obtain a competitive advantage over its rivals, it must possess the ability to drive the widest possible wedge between a customer willingness to pay and a supplier opportunity cost. In other words, the firm must produce something uniquely valuable to customers in the most cost-effective manner (Ding, Fu, Zheng, & Yan, 2018; Munguia, et al., 2018; Lamberg & Tikkanen, 2006; Moir & Lohmann, 2018; Mahdi, Nassar, & Almsafir, 2018; Sakas, Dimitrios, & Kavoura, 2015).

From a Higher Education Institutes (firm) point of view, generating sustainable competitive advantages over time is an open global issue as demonstrated in the following works. Mahdi, Nassar, & Almsafir, 2018, identified that in modern times, it has come to the realization of organizations that acquiring knowledge and using it in an effective manner is the only way to have a sustainable competitive advantage in the marketplace. This study was based on knowledge management processes for private universities in the business world. Also, authors realized how and why a sustainable competitive advantage can be created by knowledge management processes from the educational environment's.

Belabesa, Belouafib, & Daoud, 2015, explored the experiment of the Islamic Economics Institute (IEI) of King Abdulaziz University in the design of the first ever Islamic finance higher educational program at a Saudi Public University. They found that the 'glocalization' of IEI; thinking globally and acting locally approach preserved its distinctive research positioning that it has gained over the years, at the same time, being able to provide world-class educational programs.

On the other hand Valitova 2014, proposed a brand approach to increase the competitiveness of the leading Russian universities among the top world research and educational centers as was required by the Government of the Russian Federation. The results showed the stages of creation and development, and the factors of its successful differentiation of the brand. The university brand value consisted in the fact that if once created, and then rebranded, it benefits the university, building its competitive advantage and making profit by maintaining the loyalty of the target audience.

Also, Lien & Miao, 2018, studied empirically the effects that a Confucius Institute has on the foreign students of its Chinese Partner University (CPU) at the province level in China. CPUs have a significantly competitive advantage only within provinces in Central and Western China.

Finally, Henriques, et al., 2018, demonstrated the factors behind undergraduates' choice of an higher education institution (HEI) in Portugal by using a fuzzy-set qualitative comparative analysis. Their study revealed that the choice criteria of prospective students are the same irrespective of whether they are applying to a university or a polytechnic school. Among the criteria, job opportunities and the institution's reputation are the most important giving a valuable insight to increase their institution's competitive advantage.

By considering the aforementioned discussion, a diagnosis based on the analysis of the Five Forces of Porter's framework is presented in this chapter. The Porter's framework is stablished under the premise of equal conditions of all firms involved due to this study is focused on the educational industry in Mexico, where the term firm is referred to Higher Education Institutes (HEI). Herein, a HEI is defined to have an academic offer of undergraduate and graduate degrees.

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