

# Assessing the Environmental Conditions of Higher Education: In a Theoretical Approach Using Porter's Five Forces Model

## Yükseköğretimin Çevresel Koşullarının Değerlendirilmesi: Porter'ın Beş Güç Modelini Kullanarak Teorik Bir Yaklaşım

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### ABSTRACT

Increased demand for higher education and the change and competition it has brought have been a subject for many studies. In Porter's five forces model, forces termed as the threat of new entrants, threat of substitute products, bargaining power of suppliers, bargaining power of customers, and established rivals between the companies are used to understand the threats and opportunities posed by the industry's environmental circumstances. The five forces model has been extensively used as an analytical tool to determine the intensity of rivalry and levels of profitability. Thus, managers can develop strategies and discover ways to defend their companies against competitive forces. Although there have been numerous studies conducted with this model for various sectors, the studies implementing this theory to higher education are very scarce due to uncertainty about whether higher education could be regarded as an industry together with its profitability and rivalry components. Specifically, in Turkey, with the idea of considering higher education to be an industry being disputable compared with western countries and even regarded as unmannerly and disloyal to academia explains the lack of studies on this subject. In this study, within the scope of the related literature, the five forces model will be discussed in conjunction with higher education. Subsequently, the factors and evaluations that are shown within this scope will be associated with the external environmental conditions of Turkish higher education. Since there is a lack of well-written sources and sufficient data, the association with Turkish higher education will not be deeply detailed. To perceive the threats and opportunities to higher education from external environmental conditions, an overall approach will be achieved. The theoretical substructure introduced by this study will bring a different viewpoint to politicians, university directors and academicians, along with being a basis for and providing vision to studies analyzing the threats and opportunities presented to Turkish higher education to develop proper strategies.

**Keywords:** External environment of Turkish higher education, Theoretical perspective, Five forces model

### ÖZ

Yükseköğretime artan talep ve beraberinde getirdiği değişim ve rekabet süreci birçok çalışmaya konu olmuştur. Rekabet denildiğinde akla gelen en önemli isimlerden birisi de Porter'dır. Onun beş güç modelinde, "sektöre yeni girenlerin karşılaşacağı engeller, ikame ürünlerin tehdidi, alıcıların pazarlık gücü, tedarikçilerin pazarlık gücü ve firmalar arasındaki rekabet unsuru" olarak adlandırılan beş faktör, bir endüstri alanının dış çevre koşullarından kaynaklanan fırsatları ve tehditleri anlamak için kullanılır. Beş güç modeli, bir endüstri alanındaki kârlılık düzeyini ve rekabet yoğunluğunu belirlemek için analitik bir araç olarak sıklıkla kullanılmıştır. Böylelikle yöneticiler rekabet güçlerine karşı kurumları için strateji geliştirme ve kendilerini savunma yollarını keşfetme imkânına sahip olmuşlardır. Literatürde, bu model ile ilgili farklı sektörlerde çok sayıda çalışma karşımıza çıkmasına rağmen, yükseköğretim alanının kârlılık ve rekabet faktörleriyle birlikte bir sektör olarak değerlendirilip değerlendirilmeyeceğine dair yaşanan kararsızlık yüzünden, teorinin bu alan ile ilgili uygulamalarına çok da fazla rastlanamamaktadır. Özellikle bizim ülkemizde, yükseköğretimin bir sektör olarak görülmesi fikrinin batıya kıyasla daha tartışmaya açık bir husus olması, konuyla ilgili bir çalışmaya rastlayamamamızı açıklar bir sebep olarak görülebilir. Bu makalede, ilgili literatür

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çerçevesinde, beş güç modeli yükseköğretim alanı ile bağlantılı bir şekilde ele alınacak, sonrasında bu çerçevede ortaya konulan faktörler ve değerlendirmeler Türk yükseköğretiminin dış çevre koşulları ile ilişkilendirilmeye çalışılacaktır. Elde konuyla ilgili derli toplu kaynaklar ve yeterli veriler olmadığından, Türk yükseköğretim alanı ile olan ilişkilendirme çok detaylı yapılmayacak, yükseköğretim alanına yönelik dış çevre koşullarından gelebilecek tehdit ve fırsatları görebilmek için genel bir yaklaşım elde edilmeye çalışılacaktır. Çalışma ile ortaya konulan bu teorik alt yapının politikacılara, üniversite yöneticilerine ve akademisyenlere farklı bir bakış açısı kazandırmasının yanı sıra ileride Türk yükseköğretim alanının sunduğu fırsat ve tehditleri analiz etmek ve uygun stratejiler geliştirmek için yapılacak olan araştırmalara vizyon sağlaması ve temel oluşturması da umut edilmektedir.

**Anahtar Sözcükler:** Türk yükseköğretiminin dış çevresi, Teorik çerçeve, Beş güç modeli

## INTRODUCTION

In recent years, the higher education environment has dramatically changed. Owing to the increasing demand and government-related budgetary constraints, the field of higher education has undergone a kind of transformation process that, in some cases, may require structural changes in all levels in both private and state-run institutions. As higher education institutions have undoubtedly assumed a major role in the social and economic development of countries, the transformation process of universities has attracted attention by many researchers. Kenny (2009) indicated that globalization of the world economy, rapid growth in internet based communications and expansion of the education market to include international students has resulted in a considerable reshaping of higher education area. Many researchers (Erçetin, 2001; Erdem, 2015; Yurdabakan, 2002) mentioned about technology, increasing educational demand, globalization, and competition as major factors that lead to this changing. Günay (2014) stated the tendencies in the higher education area as following: (i) changes in population, (ii) increase in student mobility, (iii) education as a global market, (iv) decrease in public funds, (v) increase in competition, (vi) student as a customer, (vii) increase in flexibility, (viii) increase in transnational education, (ix) increase in strategic alliances, (x) partnerships and networks, and (xi) rise of Asia. Pasternack et al. (2006) state that the major developments in higher education can be identified as expansion, differentiation, greater flexibility, quality orientation, standardization, employability, internationalization, and lifelong learning. Altbach, Reisberg, and Rumbley (2009) propose that trying to examine these trends separately is similar to trying to pull an individual string from a knotted mass—tugging one brings along several others: mass enrolment has created a demand for expanded facilities for higher education. Larger enrolments result in more diverse student expectations and needs. Expansion and diversification create a need for new providers. Each of these developments is related. Rising enrolment has caused an increasing demand. This demand results in more diverse student expectations. Expansion and diversification require additional revenue and new channels. To meet the increasing costs, the need for private institutions and collaborations with industry/government emerges. Thus, because of the rising demand tendency of higher education (Belfield & Levin, 2002; Erdem, 2015; Gök & Gümüş, 2015; Mazzarol, Hosie, & Jacobs, 1998), all governments have to seek alternative financial sources or funds to satisfy rising demand.

Privatization of universities has become one of the solutions solving this problem. This means that, this kind of increasing demand has led to the privatization concept in higher education area. The relatively loose governmental regulations in the higher education sector have resulted in an increased number of private higher education institutions, a phenomenon that has heightened the competition within this sector (Anand, 2012; Bradmore & Smyrnios, 2009; Naidoo, 2008; Pringle & Huisman, 2011). Therefore, universities must develop their competitive advantages against rivals in this highly competitive environment.

Several articles and books have been written about the concept of competitive advantage. In some of these works, the authors used the five forces model as an analytical tool to analyze competition in the industry and how business organizations can obtain competitive advantage in the industry. However, because of ongoing debates whether higher education institutions are a kind of a business, only few works have analyzed this sector's competitive advantages using the five forces model. There are two perspectives concerning this issue. The first is the traditional perspective, which considers higher education as a kind of a public good within a bureaucratic system and is therefore managed and financed by government. According to this view, education is a main human right that should be freely accessible to everyone; thus, higher education cannot be considered a business and students cannot be seen as its customer (Albanese, 1999; Bay & Daniel, 2001; Franz, 1998). The second perspective, in comparison, considers higher education as an industry that can be assessed using a business approach. Lynch and Baines (2004) argued that higher education can be thought of as a business activity based on three important assumptions of business, namely, competitive market, profit maximization, and competitive resource bundles. According to the study of Grotkowska, Wincenciak and Gajderowicz (2015), in pre-modern perception, universities were closed, elitist circles of professors and students and they focused on research, teaching and learning. However, the role of higher education institutions has unambiguously changed in the modern era and it was reshaped because of new demands and expectations. That is why, universities are not only responsible for teaching and research activities but are also responsible for responding to the demands of government and business world. Governments and business world expect more of higher education, they viewed as a strategic partner to support economic growth and social wellbeing. Therefore, they should be aware of all

new approaches in higher education to prepare their institutions for a new world. At present, at the end of the all factors mentioned above, many higher education institutions have begun to adopt a more business-like approach in managing their institutions to maintain their competitive advantage and survive in the ever-changing higher education industry (Dahan & Şenol, 2012). Accepting higher education as a kind of business enforces the need to deal with the concept of competition in higher education. Studies have reported that universities nowadays compete for occupancy rate, students, faculty members, research support and financial contributions, innovation, more efficacy, and higher quality education (Jongbloed, 2003; Naidoo, 2005, 2008; Pringle & Huisman, 2011). Furthermore, according to Dill (2003), such competition has become increasingly aggressive and global in recent years. De Boer, Enders, and Jongbloed (2009) reported that the increased competition resulted in better efficiency, higher quality, more innovations, and a wider range of choices for consumers. Although some researchers have argued that such competition is not wholly desirable for the universities, they do not deny its existence (Lynch & Baines, 2004).

In this article, higher education will be assessed as a business entity facing the problem of increasing competition. The alteration in the environment of higher education, which is resulting in a transition to a more competitive university environment due to new challenges and trends in higher education, will be discussed. In this discussion, we present the external environment of higher education in a theoretical perspective using Porter's five forces model. That is, this study determines the relationship of the five forces and higher education based on the literature and to obtain a general assessment by associating constitutive elements of the Porter framework with the Turkish higher education field. We begin by providing general information on the Turkish higher education system. We continue by outlining the five forces as defined by Porter and explore each one in its basic elements in the context of higher education. In addition, we contextualize these constitutive elements by looking at the current setting and interactions within the Turkish higher education system. This study could not be completed in detail because of the insufficiency of studies and data on Turkish higher education. However, it may be a pioneer for further research to analyze threats and opportunities from external environment of Turkish higher education. We rely heavily on the prepared reports of the Turkish Higher Education Council (CoHE) and other institutions, even if they are not directly related to Turkish higher education, such as SETA, UNESCO, TÜSiAD, TÜBİTAK, World Bank, YÖDEK, OECD, and DEİK. This includes studies with assessments of other countries' higher education environments and other studies that analyze higher education based on the concepts of business and competition. Where these analyses are not readily available, we will rely on the author's views. The theoretical perspective obtained based on existing literature will help academics and managers of institutions of higher education understand the factors of the external environment of higher education and how these factors affect institutions of higher education. This study will conclude with some observations and recommendations for policy makers in Turkey.

## Literature Review

### Overview of Turkish Higher Education

In 1981, in accordance with the new Higher Education Law (No. 2547), the administration of higher education in Turkey was comprehensively restructured. The system became centralized, with all institutions of higher education becoming tied to the Council of Higher Education. A centralized university exam and placement system was introduced. There are two types of universities in Turkey, namely state and non-profit foundation universities. In state universities, a rector chairs a senate, which is responsible for implementing regulations and ensures co-ordination among subsidiary organizations attached to the university. Six candidates for the rectorship are elected by the faculty members of the university by secret ballot. CoHE proposes three of those six candidates to the President of Turkey, who then makes the final selection and appoints the rector. In non-profit foundation universities, the selection of candidates and the appointment of the rector are conducted by a board of trustees. State institutions of higher education are funded by the government, based on a detailed itemizing of their expenditures. Income is also received from institutions, fees, payments, publications and sales, movable and immovable property, and profits. Foundation universities are funded by their foundations and students. For admission to all universities in Turkey, a valid high school diploma and sufficient score on the Student Selection and Placement Examination are required. This examination is administered by the Measurement, Selection, and Placement Center. International students who intend to undertake undergraduate study in Turkey should have completed their secondary education at a high school or similar institution in which the education is equivalent to that of a Turkish high school. They apply directly to the university of their choice, which then makes its own selection. International students who intend to pursue their graduate/post-graduate studies in Turkey also apply directly to universities, which set their own admission requirements. For international students, tuition fees are applied differently in state and non-profit foundation universities and may change from one university to the other. In most Turkish institutions of higher education, a face-to-face type of education is followed. In this type of education, students are required to attend their courses or practical work sessions. Students may also receive higher education through various distance education programs. Since 1982, the Open Education Faculty of Anadolu University has offered distance education, delivering two-year and four-year undergraduate programs. Currently, in addition to the Open Education Faculty of Anadolu University, two other universities (Istanbul University and Ataturk University) also have open education faculties, and they also offer many undergraduate programs in different fields. In addition, many other institutions of higher education have established distance education centers and have started to offer various online and hybrid programs at different levels. About 30% of these students were conducting their studies via distance education, mostly in Open Education Faculties, and 70% via face-to-face education (CoHE, 2014). The rate of distance learning in Open Education Faculties is nearly 1% (Çetinsaya, 2014).

Turkey actively participates in the Bologna Process, which defines the European Higher Education Area (EHEA). Since its inception in 1999, the Bologna Process has deliberated the establishment of the EHEA for strengthening the competitiveness and attractiveness of European higher education and for fostering student mobility and employability through the introduction of a system based on undergraduate and postgraduate studies with easily readable programs and degrees. The Bologna Process has been an important opportunity for the reconstruction and internationalization of the Turkish higher education system. Along with this, there are important opportunities for international university students to spend one or two semesters at Turkish universities by joining the Erasmus or Mevlana exchange programs. The Erasmus program is a European student exchange program that offers university students the opportunity of studying in another European country for a period of at least three months and a maximum of 12 months. The Erasmus program also offers exchange opportunities for academic staff. The Mevlana exchange program supports the exchange of students and academic staff between Turkish institutions of higher education and institutions of higher education in other countries. The program includes institutions of higher education throughout the world, regardless of geographical borders. The expenses of both incoming and outgoing scholars are covered by the Turkish government. The number of international students pursuing higher education to Turkey is around 55000 (CoHE, 2014). Besides, with over 80,000 outgoing international students, Turkey is one of the top countries in the world in sending students abroad (OECD, 2013). In recent years, the number of universities in Turkey has increased substantially. In 1987, there was only one foundation university and 28 state universities, but by 2015, the number had increased to 76 foundations, 109 state universities, and eight foundation vocational schools. As 15 foundation universities were closed for political reasons, the number of universities has decreased to 178 in 2016. This means that the number of institutions of higher education show a steady rise over the past 30 years, with the exception of this year. With a dramatic increase in the number of institutions of higher education in the last decade, higher education has become more accessible in Turkey. In 1987, the number of students enrolled in higher education was 502380; in 2016, this number reached 6689185. In 1987, the number of academic staff was 24382; in 2016, this number had increased to 156168. As will be apparent from these numbers, higher education has significantly expanded in Turkey since the 1980s, with a marked increase in the number of universities, students, and academic staff (Konur, 2011).

### **Porters' five forces model**

A principal model of this school of thought is Porter's (1985) *five competitive forces* for analyzing an industry's structures. In this model, a firm's profitability is influenced by its relative size compared to its industry rivals, suppliers, and customers (Porter, 1985). Since its introduction, Porter's five forces model of competition has been widely used as an analytical tool to analyze the intensity of competition and to identify the level of profitability of an industry. This model is also employed to

determine the ways by which an organization can develop strategies and defend itself from competitive forces in the industry. The results of five forces model analysis help assess the level of competition of an industry, and the ability of firms within that industry to make profits. Porter's five forces model of competition has five elements, namely, the threat of entrants, threat of substitutes, bargaining power of buyers, bargaining power of suppliers, and intensity of competitive rivalry.

### **Using Porter's five forces model to analyze the higher education industry**

This theory is interested in the external environmental structure of an industry. Interestingly, many researchers do not think of higher education as an industry and by extension in terms of profitability, nor do they consider the possible applications of its analytical frameworks to higher education (Pringle & Huisman, 2011). In the literature, Porter's five competitive forces theory is not well covered and fully explored in the higher education industry (Hua, 2011; Pringle & Huisman, 2011). In this study, based on the literature, the external environmental conditions of higher education are assessed using Porter's five forces in a theoretical perspective.

#### *Threat of entrants*

According to Porter (2008), new entrants to an industry result in increased pressure on prices, costs, and the rate of investments. Thus, the threat of new entrants in an industry results in intensified competition that can affect an industry's overall profitability. A low entry barrier can intensify competition among providers, whereas a high entry barrier can lead to fewer providers with less intense competition within an industry. If the barriers to entry remain high, the threat of new entrants will be low. Ronquillo (2012) examined the threat of new entrants in the higher education industry, arguing that the existence of educational institutions may be challenged with the threat of new rivals, that is, new schools create an intensified competitive environment for higher education institutions. Martinez and Wolverton (2009) suggested the following four factors that can affect the potential for entry of a new competitor in the higher education industry: economies of scale, capital requirements, competitor reaction and, buyer resistance. Economies of scale refers to an organization's ability to increase productivity or decrease its average cost of production by more efficiently employing resources over time. If existing providers can create economies of scale, then the threat of new entrants will decrease.

High capital investment as a requirement for entering an industry will reduce the threat of new entrants. As the high level of capital investment required for a traditional university, new universities are less likely to enter the higher education area. Competitor reaction is another effective factor on the potential for entry of a new competitor. The competitors often react negatively to new or potential entrants, and so, these reactions can create barriers for newcomers. This will be the same in higher education, new entrants in higher education area will face the reaction of existing universities. In addition, that new entrants face two forms of buyer resistance: a failure to accept

the new goods and services; and an unwillingness to deal with the cost of switching to the new ones. For students, accepting a new academic institution will be difficult. They will tend to compare the new one with current universities in terms of quality and opportunities. Moreover, there will be unwillingness for bearing to the cost of switching to a new academic institution, this situation be a risk for their career. Collis (2001) examined the higher education industry using the five forces model. He argued that technology promises to be the vehicle for easier entry into the higher education arena because of the very low marginal costs involved.

He stated that technology allows for the replication of much of the educational experience at very low marginal cost; the lectures, class notes, and reading lists can all be transmitted at close to zero cost, thus, entry barriers have been substantially reduced. Mathooko and Ogutu (2015) sought to understand how Porter's five forces, among other factors, shape the choice of response strategies adopted by public universities in Kenya. In parallel with Collis study, they emphasized that, in the past, the barriers to entry in higher education used to be high, primarily because of the cost of building a campus; however, using recent technologies has led to the decrease of such entry barriers. Their study proposed the following factors as barriers to entry in higher education area: the length of time needed to build the reputation by which to attract students, the high standards for certification, the process of reinforcing the value of a brand name and, the requirements and restrictions imposed by accrediting associations and bodies. They said that these four factors can deter the entry of new participants in the higher education industry. King (2008) attempted to introduce the use of strategic concepts to the non-profit higher education segment. He said that a high fixed cost structure, extensive federal and state regulation, enormous economies of scale, and restrictive curriculum-accrediting processes all serve as higher barriers to entry, which tend to serve the incumbent schools well by protecting their current market shares. Pringle and Huisman (2011) also applied Porter's five force model to the higher education industry in Ontario. Similar to the study of Martinez and Wolverton, Pringle and Huisman argued that the following Porter theory factors influence the entry of a new competitor in the higher education industry. First is supply-side economies of scale. This factor refers to an institution's ability to increase productivity by decreasing the average cost per student. In the context of higher education, supply-side scale economies can restrict new entrants and force the latter to enter the industry on a larger scale, which entails that they dislodge current higher education institutions or, alternatively, accept a cost disadvantage. This means that higher education institutions would have to charge more per student (cost disadvantage) or operate under reduced profit margins until they achieve a similar size and number of enrolments as their competitors. Second is demand-side benefits of scale which discourages entry by limiting the willingness of customers to buy from a newcomer and by reducing the price the newcomer can command until the latter builds up a larger base of customers. In the context of higher education, the increasing demand of students to graduate from a prestigious university also leads

to heightened competition in this industry. To a certain extent, students as buyers of higher education are willing to pay higher tuition fees to obtain a degree from a more prestigious university. In this way, they can differentiate themselves from others in the labor market. Third one is determined as customer switching cost. This concept can be defined as fixed costs that buyers must accept and pay for when they want to change their suppliers. Switching costs of higher education are affected by several factors, including location, social networks and friendships, and the notion of transfer credits. Therefore, the students are likely to closely consider all these fixed costs of education when they want to shift to another institution that provides teaching, research, and other services and opportunities. Forth is defined as the capital requirements. They emphasized that high capital investment as a requirement for entering the higher education industry be factor that minimizes the threat of new entrants. Other factor which is described as an effective factor on barriers of entrants is incumbency advantages independent of size. In the context of higher education institutions, incumbency advantages are as follows: established administrative structure, excellent reputation, willingness of students to enroll, and complex faculty and political connections. Therefore, an established university has clear incumbency advantages that are not available for new entrants. It is a known fact that students tend to choose reputable institutions (Donaldson & McNicholas, 2004; Kim & Gasman, 2011; Maringe, 2006). Brown (2008) also stated that many students are keen on attending prestigious institutions, and many employers are keen on recruiting graduates from such institutions. This situation gives an advantage to the better-established institutions that have excellent reputation and prestige. Therefore, new universities may have a disadvantage in this perspective. Sixth is determined as unequal access to distribution channels. The well-connected metropolitan universities have an advantage because of their great locations (Sezgin & Binatlı, 2011; Soutar & Turner, 2002; Teker & Özer, 2012; Yamamoto, 2006). These authors proposed that, regardless of the online education alternative, easy access to higher education is largely affected by the transportation infrastructure surrounding universities, which in turn, enables students to access a university campus easily. Hence, distribution channels remain a strong barrier for a new entrant university that does not have access to efficient public transit systems. Lastly, they mentioned on restrictive government policy. They said that it can be a strong barrier to entry for higher education institutions given that provincial governments ultimately control the number of higher education institutions in several countries. As Mathooko and Ogutu (2015) reported, governmental policies are powerful drivers of higher education. Martinez and Wolverton (2009) mentioned that government policies as entry barriers that this can serve as a sixth force of entry barrier. They argued that government influence is actually part of nearly all five forces in Porter's model, indicating that perhaps the government itself should be defined as a sixth force—a force that is equally important as the original five forces in the model. They further indicated the various governmental levels influence the higher education industry by empowering consumers, funding institutions,

buying research, and disseminating information about colleges and universities (Mathooko & Ogutu, 2015).

In summary, the threat of new entrants in higher education is that new universities offer the same faculties as existing ones. A high barrier to entry in higher education will result in fewer new universities and less competition, while a low barrier to entry will result in more new universities and, consequently, more competition. The potential threat of new universities as one of the five forces can be discussed in terms of the following barriers to entry: (i) disadvantages coming from economy of scale: this means that new universities should negotiate with current institutions of higher education or, alternatively, accept a cost disadvantage; (ii) high capital requirements; (iii) reaction of existing universities; (iv) student resistance: this means that students tend to prefer existing universities because of the incumbency advantage, including reputation, experience, and prestige, which is not available to potential new entrants; and (v) the requirements and restrictions imposed by the government. When the factors mentioned above, which are obtained through Porter's theory, are considered, the following can be thought of as crucial barriers to entry in Turkish higher education: the policy of the government and stance of CoHE, as the state agency in Turkey responsible for higher education, on this issue; the dominance of existing universities because of the incumbency advantage, including reputation, experience, and prestige in higher education; and that establishing a university that can compete with established universities requires large capital. Government policies and the regulations of CoHE's support the establishment of new universities; these policies and regulations can create opportunities for new universities. In the opposite case, they would create a threat to new universities. For example, a supportive attitude can be seen in Prof. Yusuf Ziya Özcan's words.<sup>1</sup> Özcan was the President of Turkish Higher Education Council from 2007 to 2011. He noted the new role of universities and financial management adding that recent developments have shown that universities cannot be managed only through the governmental budget, so we need to look for other solutions. In another speech, he supported that the independence of universities, especially financial independence. He said that as there are no private universities in Turkey, we should make efforts to create them; however, this would require some alterations in the Constitution. In the future, some foundation universities may be changed into private universities. During his term, the increasing number of universities paralleled his words. The number of universities increased from 115 to 165 in a 4-year period: Fifty new universities were founded, i.e., 18 state universities and 32 foundation universities. From 1933 to 2007, 115 universities were founded in a 74-year period, with only 30 being foundation universities, whereas in a 4-year period, 50 universities entered the area of Turkish higher education and 32 of them were foundation universities. This provides evidence regarding the significant effect of government policy and the CoHE on the number of new entrants in Turkish higher education.

<sup>1</sup> <http://arsiv.ntvmsnbc.com/news/431890.asp#storyContinues>

### *The power of suppliers*

Porter (2008) stated that supplier power is more concentrated than the industry it sells. This is true when industry participants face switching costs in changing suppliers, the supplier's products are differentiated from others, or they have built up switching costs and there is no substitute for what the suppliers provide. Suppliers can use their bargaining powers by threatening to increase prices or decrease the quality of the purchased goods and services. If there are a few suppliers within an industry and these suppliers sell an essential component or service, then supplier power in this case is high relative to other industries (King, 2008).

According to Martinez and Wolverton (2009), suppliers are defined as those organizations or individuals who provide the materials, information, or knowledge that allow an organization to produce its products and services; hence, in this context, faculty members are the suppliers of universities who provide the information and teaching. Thus, with the increasing number of higher education institutions and the limited number of trained faculty members, the suppliers can be said to have high bargaining power in the higher education industry (Anand, 2012). Meanwhile, governments and private foundations can also be considered as suppliers who provide materials, such as physical resources or subsidies, to higher education institutions. Similarly, high schools can be considered as one of the major suppliers (Huang, 2012) in the higher education sector; that is, the former provide the students to the latter. Mathooko and Ogutu (2015) stated that academics serving as "laborers" in the higher education industry should be recognized as suppliers. Martinez and Wolverton (2009) stated that academics comprise one of the most important suppliers as they are the ones who deliver academic knowledge, ideas, and research output. Pringle and Huisman (2011) indicated that, while support services for universities (e.g., bookstores, health clinics, and food services) also make up a portion of supplier power, by far, the biggest contributor is still the group of highly skilled "laborers" in the form of instructors, researchers, and administrators. That is, as Wolff, Baumol, and Saini (2014) showed, higher education can be assessed as a highly labor-intensive sector.

Overall, the power of suppliers in the higher education is considered to be the academics including instructors, researchers, and administrators of universities. If suppliers offer products that are differentiated and there is no substitute for what the supplier group provides, supplier power will be strong in the industry. Many studies (Belanger, Mount & Wilson, 2002; Ho & Hung, 2008; Hoyt & Brown, 2003; Sidin, Hussin & Soon, 2003; Soutar & Turner, 2002; Strayhorn, Blakewood & Devita, 2008; Tavares, Justino & Amaral, 2008; Webb, 1993) indicate that a major indicator of quality of higher education is academics. If the faculty members of a university differentiate themselves by their research and teaching methods, it will be a great advantage for them. Duczmal (2006) showed that a faculty's

bargaining power is high because currently there are no realistic substitutes. Therefore, as there is no real substitute for what academics provide to universities, they maintain a strong bargaining position and a degree of power in higher education. Considering the increasing number of higher education institutions and the limited number academics in Turkey, suppliers can be assessed as having a high bargaining power. Moreover, academics can be regarded as an important factor effecting the process of choice of university for Turkish students in many subject areas (Çokgezen, 2012; Hacifazlıoğlu & Özdemir, 2010; Sezgin & Binatlı, 2011; Yamamoto, 2006). This situation also indicates the power of academics in Turkish institutions of higher education.

#### *The power of buyers*

According to Porter (2008), powerful customers can gain more value by forcing down prices, demanding better quality or service, and generally playing competitors off against one another. In an industry, if the buyers have many options, they have more power. Nowadays, the increasing number (supply) of higher education institutions has generated several options for the students. This means that the students have the stronger power in this context. Pringle and Huisman (2011) stated that, in the case of higher education, the buyers are the students and their parents. Collis (2001) echoed this idea by stating that the customers of the higher education industry are the students and their parents. Further, Collis (2001) argued that buyer power has been historically low as the market demands grow. He also stated several factors that have led many to positively correlate their evaluation of quality with price. These factors include the following: inability to negotiate tuition rates, reduced student price sensitivity because of the high degree of differentiation by the premier institutions; and the intangible quality of education. Ronquillo (2012) agreed with Collis (2001) and Pringle and Huisman (2011) as he also stated that students and industries can be regarded as buyers of higher education. Robinson and Long (1988) also thought that the students are the primary customers of higher education industry. Other studies posited the same argument (Downey, Frase & Peters, 1994; Michael, Sower & Motwani, 1997). Meanwhile, according to Duczmal (2006), the power of students' increases with the number of options they have. Thus, as the student body is the primary customer of higher education institutions (Asaad, 2011), the major satisfaction of the former is the major goal of the latter. Baron and Corbin (2012) mentioned that the concepts of student engagement as a customer of universities.

Apart from the above, many other studies have argued that students and their parents are the buyers of higher education. According to the study of Mathooko and Ogutu (2015), students or parents are the buyers of higher education in the sense that they purchase education from an institution. This same idea has been stated by Martinez and Wolverson (2009). The students, employers, and other institutions who want to have some special knowledge in their respective areas, along with the students' parents, are the primary customers of higher education institutions (Huang, 2012). Scrabec (2000) echoed this notion by stating that other parties that benefit from qual-

ity education, such as parents, other industries, and the society in general, fit the definition of "beneficiary." In addition, the parents have an important influence on their children's decisions about their career paths; therefore, the parents are also buyers of higher education. A student's decision about which institution he/she wants to attend is likely to affect the competitive position of that institution in the market (Huang, 2012). Parents' educational expectations for their children strongly influence the students' aspirations toward higher education (Hossler, Braxton & Coopersmith, 1989; Stage & Hossler, 1989; Kim, 2002). Therefore, universities must also consider parents' expectations regarding the values and benefits of higher education, in addition to potential students' expectations (Huang, 2012). Moreover, as the purpose of higher education is to prepare students for the future, employers are also considered as a customer of higher education. They be the last consumers of universities. Finally, Michael et al. (1997) argued that future employers are also important customers of higher education institutions as they are the final consumers of the "products" (the students). As Porter defined this force, he emphasized that if buyers have many options, they will have more power. As the increasing number of universities has generated many options for students, students may be taken more seriously than in past times. Considering that the number of universities has increased substantially, this situation can also be considered true for Turkey. In 1984, there were only 28 universities, but by 2001, this number had increased to 76, reaching 178 at the end of 2016. This means that Turkish students as the main consumers of higher education now have more options in choosing their universities. Thus, they have gained more power in Turkish higher education than they had in the past.

#### *The intensity of competitive rivalry*

In this force, the important issues are the number and capability of your competitors. If you have many competitors, and they offer similar goods or services with yours, then your company will most likely have little power, because the buyers will easily go elsewhere if they don't get a good deal from you. On the other hand, if any people can do what you do, then you can often obtain tremendous strength in your business area. According to Porter (2008), the intensity of competitive rivalry as a major determinant of the competitiveness of the industry takes many forms, including price discounting, sustainable competitive advantage through innovation, new product introduction, level of advertising expense, degree of transparency, and service improvements. That is rivalry can be shaped with the more differentiated the strategies of industry participants, it can be reduced with more differentiated the strategies or can be increased with similar strategies.

As indicated by Martinez and Wolverson (2009), the intensity of rivalry in the higher education industry can be identified by examining the factors including, the profile of existing players and the industry context. They (2009) reported that *the profile of existing higher education institutions* is defined by the number and type of institutions in the pool, which can then determine the degree to which each institution must compete for students, faculty, government-based funding,

and research dollars. They further argued that higher education is strongly influenced by political, economic, social, and technological variables. Thus, the opportunities–threats and strengths–weaknesses dualities can be determined by looking into *the industry context*. Higher education institutions benefit the industry by conceiving and implementing strategies against rivals. If a higher education institution does not care about these structural factors including the profile of existing players and the industry context, then their profitability is negatively affected by the heightened competition. For instance, social variables wield prominent effects on the higher education industry such as a decreased birth rates can lead to low student enrollments, whereas a population boom can lead to a growing number of student enrollees. In addition, that technological trends and innovations dramatically have an impact on the intensity of rivalry in higher education area. Universities must capitalize on technological developments enhance their competitive position as they move to the forefront of the education area. Pringle and Huisman (2011) further argued that rivalry is a powerful force that can lead to tighter profit margins and they emphasized with parallel of Martinez and Wolverton (2009) view, this rivalry depends on the objects of the competition, namely, the students, faculty, donors, or government-based funding and research organizations that provide the much-needed resources. Meanwhile, Dobni and Dobni (1996) reported the similar issue with them that rivalry exists among the business schools in terms of attracting and retaining the best faculty, students, and research grants. According to Ronquillo (2012), tough competition exists among neighboring universities and colleges. Such a competition has increased in recent years because of the corresponding increase in the number of higher educational institutions. To survive within this competitive environment, the university must be more responsive to students' needs and concerns, which is a positive effect of competition. Nevertheless, an intensive competitive environment also results in difficult conditions for the higher education institutions. Bradmore and Smyrniotis (2009) mentioned that the universities need to re-examine their strategic planning processes to determine whether adequate attention is being paid to rapid intensification of competition. They pointed out that if rapidly intensifying competition in the global higher education sector was identified as a threat during the strategic planning process, that issue should have received attention in strategic plans and the degree of concern with that issue will be evident in the relative prominence (or centrality) of the concept of competition.

The profile of existing players can be shaped in the following two ways: domination by a handful of institutions or the existence of many similar providers. If higher education is shaped according to the first, each institution does not need to differentiate itself and will have natural power in its area. When only a handful of institutions dominate a given market, the need for competitive action is minimized. That is, if an institution is the only game in town and has a captive audience, it is unnecessary to expend precious resources on tactical actions that will most likely produce only marginal returns (Martinez & Wolverton, 2009). However, nowadays higher education

does not fit this profile. The academic changes of the late 20<sup>th</sup> and early 21<sup>st</sup> centuries are more extensive, due to their global nature and the number of institutions and people they affect, and in the early 21<sup>st</sup> century, higher education has become a competitive enterprise (Altbach et al., 2009). As it is all over the world, because of the global atmosphere, including the mobility of staff and students, international cross-border investment and increasing demand, competition has also been increasing for Turkish universities (Aydın, 2016; Erdem, 2016; Gök & Gümüç, 2016; Koç & Yılmaz, 2010; Özkan, 2016), and they need to change to survive. Many universities have gone beyond their old structures, which were based only on education, teaching, and research, and they have adopted an initiative and value creator role (Çiftçi, 2015). The competitive environment is a challenge for higher education, and universities need to be reengineered to respond to newly created requirements. To transform this challenge into an opportunity, the institutions of higher education can use three differentiated strategies developed by Porter as follows: cost leadership, differentiation, or focus. If one institution chooses to differentiate its programming by offering specializations unavailable at competitor institutions, this will provide an advantage for it. For example, as Bezm-i Alem University focuses on health education, this gains a competitive advantage for them in Turkish higher education. If a cost leadership strategy is adopted, and access to faculty from one institution may be offered at a cheaper rate than at its equivalent competitor, this will also create an advantage for universities. Alternatively, another way to success in this competitive environment, providing yourself a position with a positive reputation, is to differentiate yourself from your competitors. Setting a corporate social responsibility strategy, and implementing it in action can be a powerful way of achieving this goal (Dahan & Şenol, 2012). In Dahan and Şenol's study, Bilgi University is an example of a success story in implementing a CSR strategy and getting positive results from it. Dahan and Şenol showed that since its foundation in 1996, Bilgi has committed itself to the propagation of democratic values and human rights, to critical thought, and to effective intervention in the social fabric of its multicultural environment. Having a corporate social responsibility strategy has led to a competitive advantage in Turkish higher education for Bilgi. Jongbloed (2004) stated the following maxim: competition where possible, regulation where necessary. Many institutions of higher education have adopted a more business-like approach to compete and survive in the changing education industry (Dahan & Şenol, 2012). This strategic change in academia is now creating its own ambiguity for institutions that are not accustomed to the different aspects of thinking and acting strategically (Gioia & Thomas, 1996). The message for the academia is clear: academia is not allowed to lock itself up in its ivory towers anymore (Weymans, 2010). Even if many academics are disturbed by the idea of managing institutions of higher education in a market-oriented manner, the changing role of universities and necessity of doing something different to survive in this competitive environment are accepted by all academics.



*The power of the threat of substitutes*

Porter (2008) defined a “substitute” as something that performs a similar function carried out by an existing entity but using a different approach. Ronquillo (2012) stated that the overall industry is improved when business entities offer similar products at possibly the same quality but at a lesser cost. In the context of higher education, first, technology can be seen as an important substitute of higher education in the literature. Technology offers students more options with greater flexibility and convenience (Kumar, 2011; Mazzarol et al., 1998; Yalçintan & Thornley, 2007). Online programs, for example, provide many alternatives to traditional education institutions. The implementation of long distance learning has broken down the traditional geographic barriers and extended curriculum offerings that might not be accessible to students in far-flung areas (Chen, 1998). Therefore, distance learning is a major substitute for higher education. Many international educational institutions can be accessed through distance learning by which students can earn a degree; thus, it represents a potential threat to existing higher education institutions (Huang, 2012). Similarly, Anand (2012) mentioned that the most powerful and growing force is the threat from the number of substitutes, particularly from distance education and online programs.

Martinez and Wolverton (2009) pointed out the fact that if the offering (i.e., distance learning program) makes significant use of technology relative to existing delivery avenues or if it can reduce the time it takes to complete the course, then it is distinct enough to qualify as a substitute rather than a new entrant to the industry. They proposed three parameters that should be examined in identifying substitutes or potential substitutes of existing higher education. These parameters include time, convenience, and application (Martinez & Wolverton, 2009). Convenience drives an adult learner to seek out alternative modes of delivery, such as the distance/online programs and their delivery methods of weekend and evening classes (Mathooko & Ogutu, 2015). In this way, the students can meet their ongoing training needs in-house or with a third-party supplier (Collis, 2001). Students also look for alternatives that offer a shorter completion time. The concept of time is also important for students who are willing to continue their education, such as those targeting a master’s degree. As most of these students want to have a master’s degree to improve their careers and not just aim for academic development, these demands certainly support the notion that time is an important consideration. For these reasons, distance-online learning, with its diversified programs, convenient service delivery methods, and modularized approach, has gained greater support among students in recent years. Therefore, higher education institutions must seek methods to respond to this kind of demand by also offering convenience and reducing time to complete the traditional programs. If they do not seek new ways, the substitute shall certainly have the advantage. In this case, higher education institutions can highlight the practicality of higher education as a positive contributor to economic success and better job prospects so as to decrease the threat of substi-

tutes. Furthermore, today’s students generally aim to graduate to have a good job (Kaynama & Smith, 1996; Soutar & Turner, 2002; Strasser, Ozgur & Schroeder, 2002). Meanwhile, with the effect of globalization, the opportunity to receive international education can be seen as another substantial substitute for universities in a country (Huang, 2012; Mazzarol & Soutar, 1999). For instance, because distance learning programs, certified programs, and online programs can help students from any location achieve a degree from a program abroad and apply for a job within a shorter period, they serve as threats to the traditional higher education systems, especially in developing countries. Nevertheless, according to Pringle and Huisman (2011), if one considers the experience and socialization inherent to the traditional university experience as having paramount importance, then the threat of substitution may be low, while the barriers to entry such as the required facilities and supportive administrative structure would be high. However, if one considers the Internet and the arrival of the “digital native” to be a growing force and driver for change in the higher education industry, then the threat of substitutes is extremely high. Certainly, many substitutes can result in more options for students thus negatively affecting the profitability of traditional higher education institutions. Therefore, universities should encourage application-based rather than theory-based education with experience and socialization inherent in decreasing the threat of technology as a substitute for traditional universities. This means that the threat of substitutes in higher education depends on how people interpret the educational experience and the application of higher education. If we accept that the most important substitute for higher education is technology, even if for some distance learning attempts, traditional higher education is more powerful than substitutes in Turkish higher education. We note that about 30% of students undertake their studies via distance education, mostly in open education faculties, and 70% via face-to-face education (CoHE, 2014), and the rate of distance learning in open education faculties is just 1% (Çetinsaya, 2014); this is strong evidence for this view. Moreover, as several studies (Altunay, 2010; Aydın, 2016, Çokgezen, 2012; Kısabacak, 2011; Yamamoto, 2006) have shown, socialization and the educational experience are important for Turkish students in their university choice. Therefore, the power of the threat of substitutes among the five forces appears to be relatively weak for Turkish higher education.

**CONCLUSION and DISCUSSION**

Along with the idea, which began in the 1980s, that each institution of higher education must be operated as an individual firm in a competitive market (Collis, 2000; Deem & Brehony, 2005), the view that business models are concepts applicable to institutions of higher education has gained importance in higher education. We have proposed an assessment of Porter’s five force model to higher education, which is possible with a determined framework based on the literature in the study. Moreover, in this article, Porter’s five forces model is used to examine the external environment of higher education in a theoretical perspective related to Turkish higher education. Using this model can help us understand the structure of the external

environments and how external environmental factors affect higher education institutions. Thus, determining these factors based on the literature helps giving an idea about the effects of the five forces mentioned (supplier power, power of rivalry, new entrants, threat of substitutes, and power of buyers) on higher education. The forces seen in terms of higher education are related with the area of Turkish higher education and can be summarized as follows:

The force of new entrants to the higher education area is related to its increasing demand. This has encouraged the establishment of new universities. The increasing number of higher education institutions has resulted in catering to this demand which leading to a competitive educational environment. Thus, the establishment of new universities results in intensified competition that can have an important effect on overall profitability. New entrants face disadvantages in terms of capital requirements and governmental restrictions and procedures. Moreover, as students generally prefer more reputable and experienced institutions, new entrants are negatively affected by the reputation and experiences of older institutions. From 1933 to 2002, 75 universities were founded within a 69-year period, with only 22 being foundational universities, whereas in a 14-year period, 118 universities were added to Turkish higher education sector, out of which 77 were foundational universities. The numbers clearly show that the Turkish higher education system has experienced a remarkable growth and privatization of higher education since 2002. The increasing number of universities in higher education sector be an indication of supportive government policies about establishment of new universities in Turkish higher education area. In this regard, the entry barriers to the higher education sector in Turkey are not very high relatively. Even if these policies create opportunities for new universities, the dominance of existing universities, due to their reputation and experience, can create a disadvantage for new entrants. If the barriers to entry remain low with government policies acting as a support, the threat of new entrants will be high with intensified competition among Turkish higher education institutions. This expansion and growth can create opportunity in higher education and enable thousands of waiting students to have easier access to it. It can be a significant step in the right direction, given the fact that there is a positive correlation between higher education and social mobility, and economic development and technological, scientific progress (Çetinsaya, 2014). Moreover, the establishment of new universities led to diversification and competition for higher education institutions to recruit students and staff both in Turkey and from abroad. It will support the internationalization process of Turkish universities, thus making them stronger and more competitive. Besides these opportunities, the growth of Turkish higher education faces some challenges about quality. It is time to think carefully on the question of providing innovative education, conducting cutting-edge research, and producing first-class publications. We especially need to make sure that newly established universities in Turkey invest in establishing quality mechanisms, while the older institutions should improve their existing systems. In addition, if Turkey cannot provide quality higher education, the internationaliza-

tion process can become a disadvantage. Through this process, Turkey should open its education system to the world. It needs to send more students and academic staff outside the country, while attracting bright foreign students and researchers to it. In this context, a reverse brain drain should also be encouraged for scholars of Turkish origin to return to Turkey for research and teaching. However, to go through these processes in a healthy way, Turkish universities should aim for the standard of education of neighboring countries and must establish quality education and opportunities for students to compete with other competing countries.

Suppliers are defined as those organizations or individuals providing materials, information, or knowledge that allow an organization to create products and offer services. Governments and private foundations that provide funds and financial resources for universities are the support of the higher education sector. Academics are the other suppliers who provide knowledge for these universities. High schools have a strong impact on which university students choose and because they provide the students, high schools are considered as suppliers in this context. However, the power of suppliers in higher education is generally considered to be the academics, including instructors and researchers. This is evidenced by the fact that many studies states that a major issue of quality in higher education depends on the academics. If the faculty members of a university differentiate themselves by their research and teaching methods, it will be a great advantage for universities. As there is no real substitute for what academics provide to universities, they maintain a strong bargaining position and a degree of power in higher education. Considering the increasing number of higher education institutions and the limited number of academics in Turkey, it can be said that suppliers have a high bargaining power. As buyers of education, the power of students, parents, employers, and industries has an important effect on education institutions. Their demands and expectations are the most significant driving factors in the higher education environment. Many studies, as mentioned above, show students as the main buyers of higher education. As Porter emphasized, if buyers have many options, they will have more power. As the increasing number of universities has generated many options for students, they may be taken more seriously than in the past. Considering that the number of universities has increased substantially, this situation can also be considered true for Turkey. In 1984, there were only 28 universities, but by 2016, this number had increased to 178, despite 15 closing foundation universities. This means that Turkish students now have more options in their choice of higher education institutions. Thus, they have gained more power in higher education than they had in the past.

The effect of competitive rivalry in higher education depends on the number and type of existing institutions which are important factors affecting competition. If there are not many universities, that is, if an institution is the only one available in town, the need for competition will be minimized. However, nowadays, higher education does not fit this profile in any country. As is the case all over the world, due to the global

atmosphere and increasing demand, competition has also been an increasing issue for Turkish higher education. That is, nowadays, no institution can remain unrivaled. Thus, they need to change to survive in this competitive environment. Universities must go beyond traditional structures which are based only on education, teaching, and research, and they need to adopt innovative structures to add value. A competitive environment can create a challenge from this perspective to respond to new requirements but to transform this challenge into an opportunity, higher education institutions can use different strategies. Thanks to different strategies mentioned in the article (above), a university can transform this competitiveness to opportunity which requires developments in higher education. In Turkish higher education, the quantitative developments bring together competitiveness amongst each other. This requires each of them to improve and, as such, all Turkish universities will need to improve to compete in the global environment. With the need for development and change brought about by competition, Turkey will be more competitive on the world higher education stage and can further increase its share of the higher education sector and so competitiveness will lead to big opportunities. Turkish higher education be having a more intense competitive rivalry than in the past. As Porter said, if your business has many competitors who offer similar goods or services to yours, then it will most likely have little power, as the buyers will easily go elsewhere if they don't get a good deal from you. On the other hand, if any business can do what you do, then you can have more power in your business area. In this regard, the important issues are the number and the capability of your competitors. The intensity of competitive rivalry in Turkish higher education can be observed in many forms, including the price of universities, amount of scholarship or new program types. For example, while one university offers 25%, another offers 40% for the same score in student selection and placement exam; new departments in many universities introduce new programs, for example, a business administration program; a new university can offer a different department or different faculty such as a department of aviation or a department of gastronomy and culinary arts; the universities increase the level of expenditure on advertising than in the past, currently, in registration period of higher education, we can see many university advertisements on television, internet, radio and billboards; the universities also try to provide different services for their students such as cafes, equipped laboratories, sports areas, and some different social facilities. That is, the message from the new higher education environment becomes a necessity to increase the quality of education and do something different to survive. We can see that rivalry can be shaped by the strategies of universities; they can be reduced with more differentiated strategies or can be increased with similar strategies.

As Technology can be used as a strategy to differentiate by universities, it (such as, online programs, distance learning, or certificated programs) is seen as an important substitute of higher education institutions, offering the advantages of time, flexibility, and convenience. If one considers the experience and socialization inherent to the traditional university

experience as having paramount importance, then the threat of substitution may be low. However, if one considers the Internet and the arrival of the "digital native" to be a growing force and driver for change in the higher education industry, then the threat of substitutes is extremely high. Certainly, a large number of substitutes can result in more options for students thus negatively affecting the profitability of traditional higher education institutions. If we accept that the most important substitute for higher education is technology, even if for distance learning, traditional higher education is more powerful than substitutes in Turkish higher education and the threat of substitutes among the five forces appears to be relatively weak for Turkish higher education.

The factors that have been determined using Porter's five forces model help us gain a substantial understanding of the external environment in the higher education industry. If a university can understand and assess these external environment forces, then it can evaluate opportunities and threats thus enabling it to develop its competitive advantage by coming up with various strategies. This theoretical assessment about Porter's five forces model to higher education industry provides a framework for further studies in this area. Therefore, the article provides a theoretical basis for future researches.

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