

# IMPACT OF HIGHER EDUCATION INSTITUTION'S REPUTATION AND IMAGE ON STUDENTS' INTENTION OF PROSPECTIVE COLLABORATIONS

MEHMET ERYILMAZ

Uludag University, Department of Business Administration

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**Abstract-** University-Industry collaborations can create various benefits for the all sides of them. However, there is often a weak link in many countries between Higher Education Institutions (HEIs) and industrial organizations. Therefore, to strengthen the relationship and to create benefits for stakeholders of it, the investigation of the determinants of relationship between universities and industrial organizations is important. Previous many studies found that a positive HEI's reputation and image increase the loyalties of students to their institutions. Thus, it is claimed in this study that reputation and image of an HEI affect intentions of its students on future collaborations. For this aim, the data was collected from 1368 senior students of a faculty in a public university. The findings of research indicated that a combination of HEI's reputation and image affect students' intentions to collaborate with their universities in future.

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**Keywords-** Institutional reputation, institutional image, university-industry collaboration, higher education institutes, Turkey.

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## I. INTRODUCTION

There are some studies in the literatures of management and organization, marketing and public relations that emphasize the important consequences of reputation and image for organizations. The findings of some studies (e.g. Baden-Fuller and Ang, 2001; Nguyen and LeBlanc, 2001; Sung and Yang, 2008) showed that these elements may create some positive or negative results for "Higher Education Institutions (HEIs)" as well. For example, organizational image is an important antecedent of continued contact with the related organization (Palacio et al., 2002). In addition, collaborations between HEIs and industries have a potential to create benefits for different groups. Despite some findings that are parallel with this idea, there are so weak ties between universities and industries frequently. As a result, examination of determinants of this relationship is very vital. As emphasized above, positive reputation and image of an HEI may affect results relating to students. Therefore, it is claimed in this study that institutions' image and reputation can affect the decisions of students about future collaborations. However, as far as known, there aren't so many studies in the related literature that investigate the relationship between these variables. In this context, the main aim of this study is to examine the impact of HEIs' image and reputation on students' current decision on collaboration in future. This particularly seems to be important for the countries such as Turkey that where the collaboration between HEIs and industries (or other external stakeholders of HEIs) is very limited.

## II. REVIEW OF THE LITERATURE

The literature review in this study will comprise of three subparts such as institutional reputation,

institutional image and finally collaborations between HEIs and industrial organizations.

### 2.1. Institutional reputation

Many scholars in many different disciplines such as management and organization, marketing, public relations and economics presented various definitions about institutional reputation. For example, according to Argenti and Druckenmiller (2004: 369), reputation is, 'The collective representation of multiple constituencies' images of a company, built up over time and based on a company's identity programs, its performance and how constituencies have perceived its behavior.

On the other hand, Nguyen and LeBlanc (2001) define reputation as a judgment of stakeholders on a bunch of transactions overtime. This definition resembles the concept of credibility. However, according to them, credibility is an evaluation that is made after a specific transaction. This study will be based on Nguyen and LeBlanc's definition of institutional reputation.

In addition; institutional reputation can create some benefits for organizations such as firm's growth and accumulation of customers' order (Carmeli and Tishler, 2005) easy entrances into international markets (Kitchen and Lawrence, 2003). In a similar vein, reputation can provide some positive results for HEIs as well. For example, Baden-Fuller and Ang (2001) discuss that decision of universities on research partnership is affected by candidate HEIs' reputation. Finally, Nguyen and LeBlanc (2001) showed that university reputation influences the loyalty levels of students.

### 2.2. Institutional image

In a similar vein, various definitions are given for the concept of institutional image in the literature. For example, Abratt (1989) defines image as beliefs and

feelings of an organization's audiences about it. So many things construct image in the minds of audiences such as interactions of employees with customers, architecture, name, products and services of an organization etc. (Nguyen and LeBlanc, 2001). Therefore, institutional image may not be a monolithic structure. It means that different groups may have different beliefs and feelings about an organization in a specific time. In addition, beliefs and feelings of a group about an organization can change over time as well. Institutional reputation and image are very similar concepts. However, institutional image is more related to portray in the minds of stakeholders. On the other hand, reputation is built after repeated meeting of stakeholders' expectations. Therefore, it seems closer to the concept of trust (Nguyen and LeBlanc, 2001).

In a similar vein, the management of institutional image can obtain some benefits to organizations. For example, Fillis (2003) argues that positive image can be used by arts and crafts organizations to grow in domestic and international markets. In a similar vein, positive image can have positive results for HEIs. For example, a university can gain competitive advantage versus competitors via a positive image (Ivy, 2001). In addition, it was found that university image affects students' satisfaction with their universities (Palacio et al., 2002).

### 2.3. University-industry collaboration

"University-industry collaboration (UIC)" refers to "the interaction between any parts of the higher educational system and industry aiming mainly to encourage knowledge and technology exchange" (Ankrah and AL-Tabbaa, 2015: 387). These collaborations may take several forms such as personal formal/informal relationships, third party, formal targeted/non-targeted agreements and focused structures (Ankrah and AL-Tabbaa, 2015). Universities and industrial organizations often demand a collaboration from each other since such collaborations have a potential to increase number of patents (Eom and Lee, 2010), articles that have higher scientific impact than university-only articles (Lebeau et al., 2008). In addition, these types of collaborations can create some benefits beyond primary sides of collaborations. For example, Mueller (2006) found that university-industry collaborations contribute to regional development.

On the other hand, it is known that university-industry collaborations often come across with some obstacles. For example, Bruneel et al. (2010) collect these obstacles under two major categories such as orientation-related and transaction-related barriers. In the context of this study (in Turkey), it is largely accepted that although there are some ongoing studies, there is still no effective collaboration between university and industry (Kiper, 2010).

In the literature, some studies discussed and investigated (e.g. Giuliani and Arza, 2009; Hong and Su, 2013) of antecedents of university-industry collaboration. For example, some of these determinants of university-industry collaboration were knowledge base of firms and scientific power of university (Giuliani and Arza, 2009), geographic and institutional proximity (Hong and Su, 2013) and cognitive distance (Muscio and Pozzali, 2013).

However, these determinants of university-industry collaboration are at macro-level and they appear to focus on more technical side of the subject.

Some studies investigate the effects of university's reputation and image on students' intentions. For example, Ivy (2001) discusses that a positive image of an HEI can affect a student's intention to enroll that institution. In a similar vein, Nguyen and LeBlanc (2001) found that HEIs' reputation and image affect students' retention decisions in a positive and significant manner. In this study, to measure retention decisions of students, a customer loyalty scale was preferred. This scale was based on intentions of students about their educations (e.g. student's intention to continue his/her educational program at that university) rather than intentions of students about collaboration with university in future.

Therefore, the aim of this study is to investigate the relationship between university reputation-image and students' intentions on university-industry collaboration. This appears to be more important in the study's context where the collaboration between universities and industrial organizations is inadequate.

As a result, the hypotheses of this study were given in below:

Hypothesis 1 (H1): Positive HEI reputation will increase the possibility of students' intentions of prospective collaborations.

Hypothesis 2 (H2): Positive HEI image will increase the possibility of students' intentions of prospective collaborations.

## III. METHODOLOGY

### 3.1. Data

Data was collected from 1368 seniors of a faculty of economics and administrative sciences in a Turkish public university. The questionnaire was distributed to approximately 2000 students by the researcher just before courses between September 2015 and June 2016. Therefore, the return rate was about 68%. During the research, faculty had about total 11300 students. 37.5% of students who participated in the study were studying at department of business

administration. The rest of sample was coming from various departments in the faculty such as economy, labour economics and industrial relations etc. The sampling method was convenience sampling.

In addition, 58% and 42% were female and male of participants respectively. The ages of participants varied between 18 and 39 and the mean of participants' ages was 21.44. Finally, the averaged period of study for participants was 3.01.

### 3.2. Measures and analysis

In this study, two scales that contain 6 questions (3 items in each scale) were used to measure of two independent variables of this study, institutional reputation and institutional image. These questions were taken from Nguyen and LeBlanc (2001)'s study. These constructs were measured by a seven point Likert type scale ("1= strongly disagree" and "7=strongly agree"). In addition, "intention to collaborate with university" as the dependent variable was measured with a categorical question ("1= if I work at a decision maker position in a private sector organization, I will collaborate with my university in

future" and ("0= if I work at a decision maker position in a private sector organization, I will not collaborate with my university in future"). Original versions of measures were in English. Thus, measures were translated into the Turkish language.

Since the dependent variable of the study was categorical, binary logistic regression analysis was preferred to analyze relationships between variables. Binary logistic regression is a type of regression that where the dependent variable must be categorical and dichotomous and the independent variables may be any type (Aydın et al., 2008). At this point, SPSS 23 was used to analyze the model. The binary logistic regression model was like below:

$$P_i = E(Y = 1 | X_i) = \frac{1}{1 + e^{-(\beta_1 + \beta_2 REP + \beta_3 IMA)}}$$

## IV. FINDINGS

The descriptive statistics are given for 6 items and demographics of participants in Table 1.

Table 1: Descriptive Statistics

	N	Mean	St. Dv.	Age	Year	IMA	REP
Age	1329	21,44	2,00	1	,624**	-, 104**	-, 120**
Year	921	3,01	1,42		1	-,136**	-,159**
IMA	1326	4,16	1,25			1	,745**
REP	1314	4,18	1,22				1

\*\* Correlation is significant at the 0.01 level (2-tailed)

Kaiser-Meyer-Olkin (KMO) measure of adequacy was 0.84 and it shows that data is suitable to operate factor analysis. Cronbach's alpha coefficient indicated that internal consistency is high ( $\alpha = 0.84$ ). During the Factor Analysis (FA), principal component technique and varimax rotation method were preferred. The results showed that 6 items were collected under only one factor as can be seen in Table 1.

Table 1: The Findings of Varimax Rotated Factor Analysis

	Component
	1
1	,766
2	,755
3	,760
4	,638
5	,855
6	,800

After this result, the model of the study was transformed into below that:

$$P_i = E(Y = 1 | X_i) = \frac{1}{1 + e^{-(\beta_1 + \beta_2 REPIMA)}}$$

The results of logistic regression analysis were presented below in Table 2, 3 and 4.

Table 2: Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	102,301	1	,000
	Block	102,301	1	,000
	Model	102,301	1	,000

Table 3: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	802,237 <sup>a</sup>	,079	,153

Estimation terminated at iteration number 6 because parameter estimates changed by less than ,001.

According to results in Table 2, the model was significant generally ( $X^2(1) = 102,30$ ,  $p = 0.00$ ). The value of Nagelkerke  $R^2$  in Table 3 showed that 15% of variation in the dependent variable can be explained by the independent variable.

Table 4: Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
Step	REPIMA	,782	,082	90,725	1	,000	2,187	1,861	2,568
1 <sup>a</sup>	Constant	-,951	,298	10,212	1	,001	,386		

a. Variable(s) entered on step 1: ORT3.

According to results in Table 4, REPIMA was a statistically significant predictor of students' intentions ( $p < .001$ ). The results also indicate that REPIMA 2,187 times increases the probability intentions of students for collaborations with their universities.

## CONCLUSION

University-industry collaboration often provides various benefits for the sides of it. However, willingness of individuals who are at the decision maker positions in their institutions is important. In addition, many studies in the literature showed that HEIs' image and reputation can affect intentions of their students. Therefore, it is claimed in this study that image and reputation of an HEI can affect the intentions of students about future collaborations.

The data that was collected from 1368 senior students was analyzed. The results showed that a combination of reputation and image affect prospective collaboration intentions of students significantly. In their study, Gotsi and Wilson (2001) discuss the relationship between reputation and image. According to them, there are two schools of thought in the literature. According to the first school, these concepts are synonymous.

This school is called as "Analogous School of Thought" by them. However, "Differentiated School of Thought" claims that these are not only different but also associated concepts. Therefore, the finding of this study appears to stand a closer point to the first school of thought. In addition, the results attracted the attention to the idea that reputation and image aren't apart constructs in the minds of participants, they are whole as emphasized by "Analogous School of Thought" in Gotsi and Wilson (2001). Finally, another interesting finding is that there are negative and significant correlations between age, year and reputation-image variables.

Since all studies have some missing points, this study has some limitations as well. For example, it is supposed in this study that current intentions about future and behaviors in future are consistent. However it should be tested with a longitudinal research. In addition, the data of this study was collected from only one institution. Therefore, the results only present the situation of institution.

In addition, this study of field seems to have a potential for future studies. As stated above, the data of this study is limited with an institution. However, subsequent studies can extend their data sets with more institutions.

The results of this study may help administrators of HEIs. For example, administrators can increase the

possibility of collaboration between their institutions and industrial organizations by a careful strategy on institutional reputation and image. However, only focusing on one part of this integrated construct may not create expected results for administrations of HEIs.

In addition, since there are negative and significant correlations among age, year, image and reputation, university administration may increase its efforts on older students.

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