

The status granted to organizational identity characteristics: An application of the best-worst method (BWM) and regression analysis

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Abstract

According to the traditional conceptualization in management literature, organizations gain status through demonstrations of superior performance (i.e., achieved status). Criticizing this narrow focus, this study identifies the status value ascribed to organizations within socially constructed systems of norms and values. Utilizing concepts offered by institutional research in organization theory, we propose historical legacy, endorsement, and prominence in the field as sources of ascribed status for organizational identity characteristics. The Turkish higher education field constitutes the empirical setting of our research. We conducted interviews with key stakeholders in this field (i.e., students, academicians, managers in industry, and high school counsellors) to elicit the organizational characteristics they perceive as relevant for defining university identity. The status value ascribed to these identity characteristics was documented via surveys with separate samples of these four stakeholder groups using a relatively new but widely recognized MCDM method, the best-worst method (BWM). Our findings provide evidence for the view that institutions have a broad influence on social hierarchy systems, yet with some nuances. We discuss significant theoretical implications for the research on status in markets and practical implications for universities and higher education institutions.

Keywords: Status; Institutional theory; Higher education field; Multi-criteria decision making; Best-worst method

1 Introduction

Status hierarchies form in almost any social setting, where actors occupying higher-ranking positions are afforded greater prestige and deference (Goode, 1978; Sauder, Lynn, & Podolny, 2012; Weber, 1978). Research has extensively addressed the benefits of high status in various contexts (Chae et al., 2020; Chen et al., 2012; Piazza & Castellucci, 2014; Sauder et al., 2012). Given important benefits of high status in the context of markets, such as improved access to valuable resources and lower transaction costs, organizations have a strong motivation to advance their status ranking and actively respond in case they experience a loss of status (Askin & Bothner, 2016; Breznik & Law, 2019; Rider & Negro, 2015; Sauder & Espeland, 2009; Chen et al., 2012). Yet, we still know little about the origins of status hierarchies and the underlying bases of status distinctions among organizations (Pearce, 2011).

According to the traditional conceptualization of status in markets, organizational status is merit-based, achieved through mechanisms such as demonstrations of superior performance or affiliation with high-status others (Phillips & Podolny, 1996; Podolny, 1993;

Sauder, 2006). Yet, this conceptualization of status is highly overlapping with the concept of reputation, which refers more closely to economists' notion of perceived quality, and captures differences in merit (Fombrun & Shanley, 1990; Pfarrer et al., 2010). Indeed, scholars in the field of sociology distinguish between *achieved* status that actors receive based on their individual accomplishments and *ascribed status* that is generally beyond actors' control and inherited from the status of the social group with which they share some identity characteristics such as gender or race (Foladare, 1969; Jasso, 2001; Thomas-Hunt & Phillips, 2011). Status is a distinct and useful concept to the extent that it refers to such unearned differences in social rank that generate privileges (Barron & Rolfe, 2012; Ertug & Castellucci, 2013; Park et al., 2020; Pollock et al., 2015; Washington & Zajac, 2005).

Despite the lack of attention in the literature on organization and management theory, the idea of ascribed status is relevant in the context of organizational fields. Similar to individuals in social settings, organizations in markets are perceived and evaluated by audiences based on their identity characteristics such as structural properties, products, and technologies (Hannan, Polos, & Carroll, 2007; Hsu & Hannan, 2005; Peteraf & Shanley, 1997; Porac et al., 1995; Rosa et al., 1999). Studies also note that some identity characteristics of organizations might be perceived as more worthy or respectable, yet without providing any reference to the underlying bases of these perceptions (Park & Podolny, 2000; Phillips & Zuckerman, 2001; Sharkey, 2014). Indeed, there is no systematic research on the factors that affect this status value ascribed to organizational identity characteristics. Thus, existing literature provides an incomplete picture of status dynamics in organizational fields.

This study aims to fill this gap by investigating the institutional influences that shape the status value of identity characteristics in an organizational field. We study these dynamics in the context of higher education, which is widely characterized as a “prestige market,” where universities try to attain and protect this asset (Askin and Bothner, 2016; Breznik and Law, 2019). We conducted interviews with key stakeholders in the Turkish higher education field (i.e., students, academicians, managers in industry, and high school counsellors) to elicit the organizational characteristics that they perceive as relevant for defining university identity. The status value ascribed to these identity characteristics was documented via surveys with separate samples of these four stakeholder groups using a relatively new but widely recognized MCDM method, the best-worst method (BWM).

Our findings provide significant theoretical implications for the research on status in markets, as they identify the status value ascribed to organizational identity characteristics within socially constructed systems of norms and values. This conceptualization of organizational status helps to differentiate from related but distinct concepts such as reputation or image (Barron & Rolfe, 2012; Ertug & Castellucci, 2013; Park et al., 2020;

Pollock et al., 2015; Washington & Zajac, 2005). Our findings also have important implications for strategic management theory since the idea of status granted to organizational identity characteristics indicates strategic trade-offs with respect to internal allocation of organizational resources (Rosenzweig & Easton, 2010). As a final contribution, our study adds to the recent trend in research applying MCDM techniques by introducing the opinions of several stakeholder groups. This multi-stakeholder perspective may be especially relevant in contexts like higher education, where the stakeholder community is broad and potentially fragmented.

The remaining parts of the chapter are organized as follows. Section 2 presents a literature review on the status concept and status dynamics in organizational fields. Section 3 introduces the empirical setting of our analysis and the factors that have shaped stakeholder perceptions of status value in this context. Section 4 explains the methodological framework that is followed in this study. The results of the empirical analyses are presented in Section 5, and Section 6 discusses their interpretations and implications. Finally, Section 7 concludes the chapter by stating the main contributions and the limitations of the study.

2 Literature Review

According to a widely accepted definition, status is "a socially constructed, intersubjectively agreed-upon and accepted ordering or ranking of individuals, groups, organizations, or activities in a social system" (Washington & Zajac, 2005; p. 284). Research, in the context of markets, documents important advantages enjoyed by organizations that are granted a high status. High-status firms can charge higher prices for the same quality output and experience greater growth in sales for a given level of quality (Benjamin & Podolny, 1999). By enhancing visibility and trustworthiness, organizational status lowers barriers of entry into markets and improves access to critical resources (Fombrun & Shanley, 1990; Stuart, Hoang, & Hybels, 1999).

Despite the significant amount of research on how status affects organizations' actions and market outcomes (Chae et al., 2020; Chen et al., 2012; Piazza & Castellucci, 2014; Pollock et al., 2019; Sauder et al., 2012), we still do not know much about the origins of status hierarchies and the underlying bases of status distinctions (Pearce, 2011). Pioneer studies on status in markets posit that organizations gain status through demonstrations of superior performance or affiliation with high-status others (Phillips & Podolny, 1996; Podolny, 1993; Sauder, 2006). Yet, this conceptualization is highly overlapping with the notion of reputation, which has its roots in the economics discipline and captures the idea that stakeholders rely on a history of past performance to predict future performance (Fombrun &

Shanley, 1990; Pfarrer et al., 2010). Indeed, the long-standing intellectual tradition of status in sociology establishes that actors gain status not only based on their accomplishments but also through inheritance from the status of the social group with which they share some identity characteristics such as gender or race. These two sources of social standing are differentiated as *achieved* vs. *ascribed* status (Correll & Ridgeway, 2003; Foladare, 1969; Jasso, 2001; Prato et al., 2018; Ridgeway, 1991).

The idea of ascribed status due to identity characteristics is largely neglected in the literature on organization and management theory (Barron & Rolfe, 2012; Ertug & Castellucci, 2013; Pollock et al., 2015; Washington & Zajac, 2005). Indeed, it is well established that organizations are perceived and evaluated by audiences based on their identity characteristics such as structural properties, products, and technologies (Hannan, Polos, & Carroll, 2007; Hsu & Hannan, 2005; Peteraf & Shanley, 1997; Porac et al., 1995; Rosa et al., 1999). Further, a few studies recognize that organizations may gain (or lose) status on the basis of their identity characteristics such as niche width (Park & Podolny, 2000), target customer segment (Phillips & Zuckerman, 2001), or affiliated industry categories (Sharkey, 2014). Unfortunately, though, these studies are silent about the factors that lead to these status judgments.

Stakeholders' assessments of status value in an organizational field are likely to be framed by a socially constructed system of norms and values in that particular context (Bitektine, 2011; Campbell et al., 2019; Kakkar et al., 2020; Pollock et al., 2019). Institutional research in organization theory provides a useful path to study such cognitive and normative frames in organizational fields. We specifically focus on three concepts proposed by this stream of research to build a collective sense of approval in an organizational field; and therefore, may be influential in shaping the status value of organizational identity characteristics: a) historical legacy, b) endorsement, and c) prominence.

The first of these concepts refers to organizational characteristics that are established in the early history of an organizational field and serve as legitimate identity templates (Greenwood & Hinings, 1993; Haack, Pfarrer, & Scherer, 2014; King, Clemens, & Fry, 2011; Pólos, Hannan, & Carroll, 2002; Zamparini & Lurati, 2017). Beyond this cognitive legitimacy, these ancestral identity characteristics are likely to inherit a historical legacy and be perceived by audiences in the field as more prestigious (Heugens & Lander, 2009; Sharkey, 2014).

The second concept refers to the endorsement of some organizational identity characteristics through various external and often publicized evaluations such as rankings, ratings, and critiques. Organizational identity characteristics that receive this endorsement are

in general perceived as "desirable standards" or "the way things should be done" (Bromley & Powell, 2012; Lee, Hiatt, & Lounsbury, 2017). Beyond this normative legitimacy, organizational identity characteristics endorsed by such intermediaries are likely to be granted symbolic capital or prestige (Bourdieu & Wacquant, 2013; Holland & Ford, 2020; Rao, 1994).

The third concept refers to the (positive) visibility of certain organizational identity characteristics due to being adopted by successful or prominent organizations in the field (DiMaggio & Powell, 1983; Fombrun & Shanley, 1990). Such organizational characteristics are likely to be associated with successful outcomes and thus gain a higher status value in the eyes of evaluating stakeholders (Baum et al., 2000; Haunschild & Miner, 1997; Kraatz, 1998).

As an important caveat, the three influences mentioned above (historical legacy, endorsement, and prominence) are defined and determined in the particular context of an organizational field (Bitektine, 2011; Rao, Monin, & Durand, 2005; Vigneron & Johnson, 1999; Zuckerman & Kim, 2003). The following section identifies the manifestations of each institutional influence in the context of the empirical setting of this research (i.e., the Turkish higher education field).

3 Empirical Setting

The Turkish higher education field with a history dating back to the early 1930s constitutes the empirical setting of our research. Reaching the size of 18 universities (all public) in the early 1980s, the field was re-designed with an overhaul in legislation. Field governance was centralized under the authority of a national-level board (YÖK – the Turkish abbreviation for 'higher education council'). The new legislation permitted philanthropic foundations to establish not-for-profit private universities. The establishment of new universities (state or private) required both YÖK and government approval. Since then, the number of universities has increased more than tenfold, reaching 209 in 2020 (131 public and 78 private).

In line with our theoretical framework on the factors that affect stakeholder perceptions of status value, below we identify the university characteristics with a historical legacy, those that have received endorsement, and those that have become prominent in the Turkish higher education field.

3.1 Organizational identity characteristics with a historical legacy

The University Reform that took place in 1933 in the Turkish higher education field reconfigured *Darülfünun* (The House of Sciences, inherited from the Ottoman Empire) under

the name of Istanbul University. This first university, as well as a replica of it established in Ankara, were modeled after the Continental European ‘classical’ university. Another university model emerged in 1944 with the establishment of Istanbul Technical University (ITU), which specialized in engineering and architecture (Okyar, 1967). These initial universities (Istanbul, Ankara and ITU) were provided with extensive autonomy according to the university law in 1946 and gained a distinguished position compared to non-university institutions in the Turkish higher education field (Gürüz, 2008; Tekeli, 2010; Üsdiken, Topaler, & Koçak, 2013)

The classical universities (Istanbul and Ankara) came to be characterized by their large sizes and faculty of medicine. This classical university identity attracted many followers from newly established universities. The technical university identity, however, stayed with its sole exemplar (ITU) and as a distinctive identity (Topaler, Koçak, & Üsdiken, 2021). Accordingly, the organizational identity characteristics that are granted historical legacy in the context of the Turkish higher education field have been the ones that characterize the classical university identity: i.e., the presence of the faculty of medicine and large size.

3.2 Organizational identity characteristics that have received an endorsement

Like many other organizational fields, contexts of higher education have recently been under the influence of various forms of external, and often publicized, evaluations via rankings, ratings, and critics (Bromley & Powell, 2012; Bloch & Mitterle, 2017; Dearden et al., 2019; Rindova et al., 2018). The criteria applied by these evaluation systems are increasingly accepted as measures of success or appropriateness (Dill & Soo, 2005; Espeland et al., 2016).

As a centrally governed field, statements, and recommendations of the higher education council (YÖK) have traditionally been influential in defining norms and appropriate behavior in the context of the Turkish higher education field. Since the early 2000s, though, the field has been subject to the penetrating influence of the global trend in higher education, which emphasizes evaluation, standardization, and benchmarking. Global rankings in higher education endorse university features such as research output, faculty excellence, internationalization, and funding (Altbach & Salmi, 2011; Bloch & Mitterle, 2017; Campbell, Jimenez, & Arrozal, 2019; Horta, 2009). Among these features, internationalization (in terms of students and academicians) has been very limited in the context of the Turkish higher education field (<https://istatistik.yok.gov.tr/>). Financial resources (or endowments) has not been a significant feature that differentiates universities either, perhaps because the Turkish higher education field has traditionally been characterized by publicly-owned universities whose budgets are determined by the state. Private

universities, in this context, can only be established by non-profit foundations and cannot be for-profit.

University characteristics that have received endorsement in the context of the Turkish higher education field are research orientation and quality orientation in teaching. With respect to the former, the past two decades have witnessed increasing pressures from YÖK to produce international publications. With respect to the latter, a higher faculty-to-student ratio (occasionally labeled as being a 'boutique' university) has recently emerged as a mark of quality orientation in teaching. These two university characteristics (research orientation and quality orientation in teaching) also constitute evaluation criteria applied by URAP (<https://www.urapcenter.org/>), a non-profit organization that has been publishing yearly rankings of Turkish universities based on their academic performance since 2009.

3.3 Organizational identity characteristics that have become prominent in the field

As indicated above, identity characteristics adopted by successful or prominent members of an organizational field enjoy (positive) visibility or prominence. The most visible indicator of university success in the Turkish higher education field is selectivity in admissions. All universities admit students through a centralized examination administered by the Student Selection and Placement Center. Since this is the only mechanism of matching students with universities, admittance scores are highly visible, and they are closely monitored by audiences in the Turkish higher education field¹.

Accordingly, university characteristics that have become prominent in the context of the Turkish higher education field are those associated with higher selectivity in admissions. As will be explained in the subsequent section, we determine the exact list of prominent university characteristics in this field via regression analysis using archival data on the entire set of organizational characteristics considered by stakeholders as identity-relevant (see section 4.3). According to the results of this regression analysis, two organizational characteristics of universities are revealed to have a significantly greater contribution to higher selectivity in admissions: English-medium instruction and location (i.e., establishment in larger cities).

4 Methods

The first step of our methodological framework is to identify the set of organizational characteristics perceived by audiences in the Turkish higher education field as relevant for

¹ Selectivity in admissions is recognized as a proxy for prestige in many other contexts of higher education (Askin & Bothner, 2016; Davies & Zarifa, 2012; Holland & Ford, 2020; Kraatz, Ventresca, & Deng, 2010; Massey et al., 2003).

defining university identity. We then apply multi-criteria decision making techniques to document the stakeholders' prioritization of these characteristics in terms of status value. The final methodological step that we present in this section aims to determine the prominence of university characteristics in this field, which we have theorized as an antecedent of their status value (noted above as the third institutional influence).

4.1 Determining the characteristics that the stakeholders apply to evaluate universities

Key stakeholders of universities in the context of the Turkish higher education field are: a) students, b) academicians, c) managers in the industry (who constitute potential recruiters of university graduates), and d) high school counsellors (who advise pupils in university selection). In order to identify the organizational identity characteristics that these stakeholders apply to evaluate universities, 10 interviews were conducted with each of the four stakeholder groups (Table S1 in Appendix presents sample statistics).

In these interviews, we applied card-sorting techniques (Budhwar, 2000; Daniels, Johnson, & Chernatony, 2002) where we presented a sample of 30 universities² (to ensure feasibility in the exercise) with names on laminated cards. We asked the respondents to classify these universities, using any criteria that they find relevant. They were then asked to name each cluster and describe its characteristics. Once the informants were done with the first round of clustering, they were invited to try different cluster solutions until they could not come up with any more. Interviews were taped with the informants' consent and lasted between one hour and one and a half hours. The informants mentioned six distinct university characteristics for distinguishing universities, which are operationalized as below:

- 1) *Quality orientation in teaching*: ratio of the total number of full and associate professors to the total number of students
- 2) *Research orientation*: publications in journals covered by the Web of Science database per member of full-time academic staff
- 3) *Size*: total student intake of a university
- 4) *Location*: 3 for the three largest cities (i.e., Istanbul, Ankara, and Izmir), 2 for other large cities, and 1 for the remaining cities
- 5) *Faculty of medicine*: 1 if the faculty exists in the university, 0 otherwise
- 6) *English-medium instruction*: proportion of departments in the university in which instruction is in English

² This set is randomly selected among the whole set of universities in the Turkish higher education field. It is available from the first author upon request.

4.2 Documenting stakeholders' prioritization of university characteristics in terms of status value (Best-Worst Method)

Separate samples of the four stakeholder groups were surveyed to document the way the above mentioned six university characteristics are prioritized in terms of status value. The questionnaire³ that we designed applied multiple-criteria decision making (MCDM) techniques. Multi-criteria decision making (MCDM) techniques create a ranking among several solution alternatives that need to be evaluated with respect to multiple criteria (Triantaphyllou, 2000). They have been widely applied in the context of higher education to solve various decision problems involving resource allocation, performance measurement, financial and operations management (Caballero et al., 2004; Hein et al., 2015; Ho et al., 2006; Mustafa & Goh, 1996). Over the years, several methodologies have been developed to use the main principles of MCDM. In this study, we utilize a relatively newer technique, namely Best-Worst Method (BWM).

BWM was initially developed by Rezaei (2015) in order to make pairwise comparisons more consistent and efficient. The properties of this method are further illustrated in Rezaei (2016); and an extension of the original BWM for capturing the opinions of several decision makers is introduced by Mohammadi and Rezaei (2020). We particularly apply the group BWM developed in this latest work of Mohammadi and Rezaei (2020).

According to BWM, two vectors of pairwise comparisons are utilized to determine the weights of the evaluation criteria. The first vector identifies how significant each criterion is with respect to the "most important" criterion of all, while the second vector displays the relative importance of all criteria with respect to the "least important" of all. Next, a non-linear minmax model (which can be transformed into a LP formulation with a unique solution) is used to compute the weights of all criteria.

Although the analysis could be conducted with several other MCDM techniques traditionally used to rank decision alternatives in various contexts, we chose to proceed with BWM due to two factors. First, this method has not been explored extensively in the literature, mainly because it is a relatively new decision making technique. This study will contribute to the extant BWM literature by applying the group BWM technique in an unconventional context, namely measuring the status perceptions in higher education. Secondly, the BWM method presents important advantages compared to similar MCDM methodologies. The advantages of using BWM can be depicted as follows: First, BWM requires the decision maker (DM) to identify the best and the worst criteria before conducting the pairwise comparisons among the criteria. The DM having a clear understanding of the

³ Available from the first author upon request.

range of evaluation could lead to more consistent and reliable comparisons. As a second advantage, the anchoring bias that the DM might have while conducting pairwise comparisons is mitigated through the use of two pairwise comparison vectors formed based on two opposite references (best and worst) in a single optimization model. Using a single vector for the input data in a pairwise comparison-based method is more efficient, yet it does not permit to check the consistency of the provided pairwise comparisons in this manner. Using a full matrix allows checking the consistency of the provided pairwise comparisons, yet it is not very efficient in terms of data (and time) and might still induce inconsistencies. BWM combines the advantages of both methodologies by letting the DM make two sets of pairwise comparisons, enabling him/her to check consistency without creating extra confusion.

The procedure for the original BWM follows the following steps.

Step 1: The DM establishes the set of decision criteria $C = \{c_1, c_2, \dots, c_n\}$.

Step 2: The DM determines the best (c_B) and the worst (c_W) criteria from C which was established in the first step. The DM does not perform any pairwise comparison in this stage. This selection is subjective; the best criterion is the most significant or the most desirable one according to the DM, while the worst criterion is the least significant or the least desirable criterion among others.

Step 3: The DM performs the pairwise comparison between the best (c_B) and the other criteria in C . At this stage, the DM adjusts his/her evaluation of the best criterion with respect to the other criteria by choosing a number between one and nine. One means both criteria are equally significant and nine means the best criterion is extremely more significant than the other criterion under consideration. The pairwise comparisons altogether produce the "Best-to-Others" vector A_B as:

$$A_B = \{a_{B1}, a_{B2}, \dots, a_{Bn}\}$$

where a_{Bj} displays the preference ratio of the best criterion c_B with respect to criterion c_j .

Step 4: Similar to Step 3, the DM now performs the pairwise comparison between the worst (c_W) and the other criteria in the set C . At this stage, the DM again selects a number between one and nine in order to reflect his/her preferences of the other criteria with respect to the worst criterion. One means equally important and nine means extremely more important. The pairwise comparisons would finally produce the "Others-to-Worst" vector A_W as:

$$A_W = \{a_{W1}, a_{W2}, \dots, a_{Wn}\}$$

where a_{Wj} shows how much criterion c_j is preferred with respect to the worst criterion c_W .

Step 5: One obtains the criteria weights $w^* = \{w_1^*, w_2^*, \dots, w_n^*\}$ by solving the following non-linear programming model:

$$\min_w \max_j \left\{ \left| \frac{w_B}{w_j} - a_{Bj} \right|, \left| \frac{w_j}{w_W} - a_{jW} \right| \right\} \quad (1)$$

$$s. t. \sum_j w_j = 1, w_j \geq 0, \forall j = 1, 2, \dots, n. \quad (2)$$

The non-linear programming model (1) - (2) aims to minimize the absolute differences $\left| \frac{w_B}{w_j} - a_{Bj} \right|, \left| \frac{w_j}{w_W} - a_{jW} \right|$ for all criteria $j = 1, 2, \dots, n$, by setting the optimal weight vector such that all weights are non-negative and add up to 1. Although BWM has various advantages, it was originally designed for evaluating the decisions of a single DM. However, the opinions of several experts are often required to avoid bias in real-life situations. BWM can still be used to create a weighted average (arithmetic or geometric) of expert opinions, especially if there are sufficiently many experts whose total number would allow utilizing the law of large numbers. However, for smaller groups (i.e., groups of fewer than 30 individuals involved), a more appropriate and precise approach would be to use the Bayesian BWM, which assumes a joint probability distribution for all decision makers. In particular, instead of using a precise point, a distribution as in the Maximum Likelihood Estimation is utilized to estimate the parameters. The Dirichlet distribution that is used in the Bayesian inference as the prior to the multinomial can perfectly be substituted for the weight vector since both of them produce non-negative values and all components add up to one in both. The steps of Bayesian Group BWM are similar to those of the original BWM method, with the exception of Step 5. The only difference is the optimization problem being substituted with a probabilistic model. The proposed Bayesian model, yet, is more informative about the confidence of the relation between each pair of criteria. In particular, given the preference vectors A_B^k and A_W^k of all decision makers $k=1, \dots, K$, the optimal weight w^* is computed by applying Bayes rule to the set of probabilities of observing each vector A_B^k and A_W^k provided that each decision maker is independent in his/her decisions and the optimal weight vector is w^* . Since these probabilities are expressed in a chain affecting each other, the model is called hierarchical. We refer the reader to Mohammadi and Rezaei (2020) for the details of this procedure and the associated formulations.

The Bayesian BWM method further produces a "credal ranking" among the criteria, which computes the degree to which a criterion is superior to another. This notion is important since the precedence relations among the criteria are not very clear for a weight vector with values very close to each other. In particular, credal ranking provides the probability that criterion c_i being superior to c_j as follows:

$$P(c_i > c_j) = \int 1_{\{w_i^* > w_j^*\}} P(w^*) \quad (3)$$

where w^* is the optimal weight vector, $P(w^*)$ its distribution and $1_{\{\cdot\}}$ is the indicator function which takes the value 1 if the condition is satisfied and 0 otherwise. Clearly, $P(c_i > c_j) + P(c_j > c_i) = 1$. Therefore, c_i is more important than c_j if and only if $P(c_i > c_j) > 0.5$ in Equation (3). As a result, a threshold of 0.5 can be applied to the credal ranking to obtain the traditional ranking of criteria.

4.3 Estimating the effects of university characteristics on university selectivity (regression analysis)

As identified above, the prominence of university characteristics in the context of the Turkish higher education field corresponds to their association with higher selectivity scores. In order to estimate the effects of the six university characteristics mentioned above on university selectivity, we applied regression analysis using archival data.

We recorded student entrance scores in the centralized university examination for each program in a university and in each score type (verbal, quantitative, language, and equally weighted). We then z-standardized these scores within score types. A university's overall selectivity in admissions equaled the mean z-score of its programs. The data for university characteristics were gathered from four sources: (a) the Law on the Organization of Higher Education Institutions, (b) the annual central university examination manuals (Student Selection and Placement Center, 2014), (c) annual higher education statistics (Council of Higher Education, 2014) and (d) the Web of Science database (Clarivate Analytics, 2014).

For detrending, we included year as a covariate to account for the linear effect of time by (Curran et al., 2012; Wang and Maxwell, 2015). The ordinary least squares (OLS) regression model that we estimated is formally represented as:

$$Y = \beta_0 + \beta_1(\text{quality in teaching}) + \beta_2(\text{research orientation}) + \beta_3(\text{size}) + \beta_4(\text{faculty of medicine}) + \beta_5(\text{English medium instruction}) + \beta_6(\text{location}) + \text{time} + \varepsilon \quad (4)$$

Z-score standardization is applied to all independent variables before they are included in the regression model. Quantile-quantile plots showed no violation of normality. Table 1 presents the descriptive statistics and pairwise correlations between the study variables. There are no issues with multicollinearity since the variance inflation factors for all variables are less than 2.5.

Table 1 Descriptive statistics and correlations (regression analysis).*

Variables	Mean	SD	1	2	3	4	5	6
1 Quality in teaching	0.19	0.13						
2 Size	0.46	0.42	-0.19					
3 Faculty of medicine	0.49	0.50	0.23	0.53				
4 English-medium instruction	0.24	0.33	0.03	-0.39	-0.28			
5 Location (larger cities)	1.09	0.84	0.35	-0.26	-0.02	0.57		
6 Research orientation	0.41	0.56	0.37	-0.07	0.04	0.37	0.33	
7 Time (year divided by 1000)	2.01	0.05	0.28	0.02	0.03	0.37	-0.02	0.24

* n = 2263. Correlations greater than 0.04 are significant at .05 (two-tailed test).

According to the regression results (Table 2), university selectivity is positively affected by faculty of medicine, quality orientation in teaching, English-medium instruction, location (establishment in larger cities), and research orientation. Effect sizes (calculated as eta-squared values) show that location and English-medium instruction have the strongest effect on university selectivity, followed by quality orientation in teaching, research orientation, and faculty of medicine.

Table 2 Regression analysis results.*

Variable	β coefficient	Effect size
Quality in teaching	0.09* (0.03)	0.033
Research orientation	0.08* (0.03)	0.030
Size	-0.03 (0.04)	0.003
Faculty of medicine	0.06* (0.03)	0.022
English-medium instruction	0.11** (0.04)	0.089
Location (larger cities)	0.23*** (0.04)	0.161
Time (years)	0.01 (0.54)	
Constant	-0.06* (0.03)	
Model F	25.85***	
R ²	0.72	

* N = 2263. Standard errors are in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001. Effect sizes show Eta-squared values.

5 Findings

The questionnaire that applies the Best-Worst Method (BWM) to document stakeholder judgments of university characteristics was sent in the form of a web-based survey. Responses were received from 17 students, 21 academicians, 24 managers, and 11 counsellors. The respondents' answers were transformed into the best-to-others and others-to-worst vectors, which were then used as inputs for the Bayesian BWM analysis. An example of best-to-others and others-to-worst vectors (i.e. A_B^k and A_W^k of all counsellors $k=1, \dots, 11$) are provided in Table 3 for the 11 counsellors who have participated in our survey. The preference vectors of other groups are not presented here for the sake of brevity.

Table 3 Best-to-others and Others-to-Worst Vectors of Counsellors.

	best	best- medicine	best- English	best- research	best- location	best- teaching	best- size
coun. 1	research or.	5	4	1	6	3	8
coun. 2	qual. in teaching	5	5	2	5	1	9
coun. 3	research or.	3	2	1	2	2	2
coun. 4	research or.	7	7	1	9	7	7
coun. 5	research or.	8	7	1	8	7	9
coun. 6	research or.	3	6	1	2	5	2
coun. 7	qual. in teaching	4	4	2	4	1	5
coun. 8	research or.	3	3	1	6	2	6
coun. 9	research or.	3	3	1	3	3	3
coun. 10	research or.	3	7	1	5	3	5
coun. 11	research or.	2	3	1	3	3	4
	worst	worst- medicine	worst- English	worst- research	worst- location	worst- teaching	worst- size
coun. 1	size	2	6	8	3	7	1
coun. 2	size	2	2	8	2	9	1
coun. 3	medicine	1	2	5	2	2	2
coun. 4	location	2	2	9	1	2	2
coun. 5	size	2	7	9	6	7	1
coun. 6	English	2	1	6	5	2	2
coun. 7	size	2	2	5	4	5	1
coun. 8	location	3	3	8	1	7	2
coun. 9	location	3	3	4	1	2	3
coun. 10	English	2	1	7	3	2	2
coun. 11	size	2	2	4	2	3	1

After the preference vectors of the four groups are identified, the following joint probability distribution is sought for each group j :

$$P(w^{*j}, w^{j,1:K_j} | A_B^{1:K_j}, A_W^{1:K_j}) \quad (5)$$

where w^{*j} is the overall optimal weight for group j , the superscript indicates the total of all vectors in the base, $w^{j,1:K_j}$ is the total of all weight vectors of the decision makers in group j , and $A_B^{1:K_j}$, $A_W^{1:K_j}$ indicate the total of all preference vectors in group j ($j = 1, 2, 3, 4$).

Note that the value of $w^{j,k}$ is dependent on $A_W^{j,k}$ and $A_B^{j,k}$, and the value of w^{*j} is also dependent on $w^{j,k}$. That is, the individual preference of k^{th} decision maker in group j is independent of w^{*j} given $w^{j,k}$:

$$P(A_W^{j,k} | w^{*j}, w^{j,k}) = P(A_W^{j,k} | w^{j,k}) \quad (6)$$

The application of the Bayes rule to the joint probability expression (6) with a consideration of all independence among the variables leads to the following expression:

$$P(w^{*j}, w^{j,1:K_j} | A_B^{1:K_j}, A_W^{1:K_j}) \propto P(A_B^{1:K_j}, A_W^{1:K_j} | w^{*j}, w^{j,1:K_j}) P(w^{*j}, w^{j,1:K_j}) = P(w^{*j}) \prod_{k=1}^{K_j} P(A_B^{j,k} | w^{j,k}) P(A_W^{j,k} | w^{j,k}) P(w^{j,k} | w^{*j}) \quad (7)$$

where \propto indicates proportionality. The last equality is obtained by using a) the probability chain rule, b) the conditional independence of different variables, and c) the independent decision making of each decision maker. This is a hierarchical model where the estimation of the parameters in Equation (7) relies on the estimation of other variables. The underlying Matlab code accounts for this hierarchical structure by using Markov-chain Monte Carlo technique. The final output is the posterior distribution of weights for every single decision maker and the aggregated optimal weights w^{*j} for the group j . We refer the reader to Mohammadi and Rezaei (2020) for further detail.

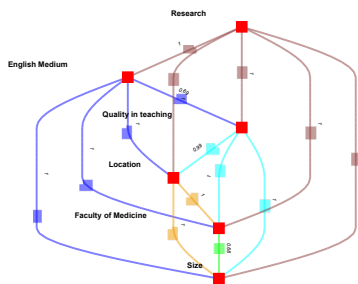
We used the Matlab implementation on the BWM website to apply the analysis (<https://bestworstmethod.com/software/>). The runs take approximately 15-25 minutes for six university characteristics (“criteria” in the language of BWM) and the indicated sizes of the stakeholder groups on a computer with 16 GB RAM and Matlab R2019b version. According to the analysis results, the optimal weights computed for each group (i.e. w^{*j} , $j=1,2,3,4$) are displayed in Table 4.

Table 4 Optimal weights of university characteristics across the stakeholder groups.

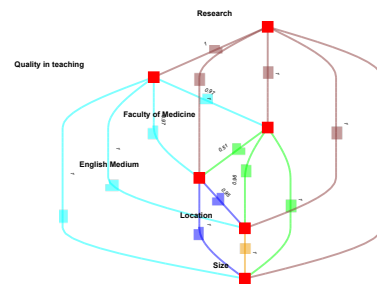
	Quality in teaching	Research Orientation	Size	Faculty of Medicine	English Medium	Location (larger cities)
Students	0.1910	0.2940	0.0845	0.0905	0.2038	0.1362

Academicians	0.1940	0.2845	0.0890	0.1539	0.1536	0.1250
Managers	0.1865	0.2436	0.1229	0.1295	0.1991	0.1183
Counsellors	0.1878	0.3441	0.0974	0.1228	0.1256	0.1222

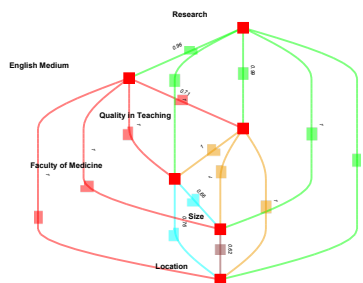
We also computed the credal rankings of university characteristics for each stakeholder group as expressed in Equation (3). Figure 1 shows these values. The number combining two university characteristics identifies the credal ranking of the characteristic above compared to the one below (i.e., the degree to which the characteristic above is superior to the one below). For instance, students regarded research orientation as the most appreciated university characteristic. At the other extreme, size and faculty of medicine are perceived as the least valued university characteristics in the eyes of this stakeholder group. English-medium instruction is certainly perceived as more valuable than the presence of the faculty of medicine (ranking= 1), whereas it is more valued than quality orientation in teaching only with some confidence (ranking= 0.69).



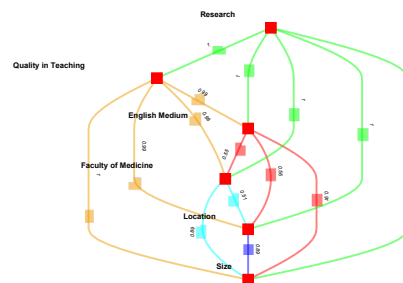
(a) students



(b) academicians



(c) managers



(d) counsellors

Figure 1 Credal rankings of university characteristics across the stakeholder groups.

According to the results displayed in Table 4 and Figure 1, overall, the evaluations are consistent among the four groups of stakeholders. In particular, all groups regard the research orientation as the most valuable criterion to define the prestige of a higher-education institution. Quality orientation in teaching follows as the second valuable criterion according to academicians and counsellors, while English-medium instruction is regarded as the second most valuable according to the students and managers. Students appreciate the location (establishment in larger cities) higher than the other groups, while they rank faculty of medicine at a lower position compared to other stakeholders. Academicians value the presence of a faculty of medicine in an institution more than the other groups. Size is, in general, the least appreciated criterion although managers think that location (establishment in larger cities) is less valuable than university size.

Overall, BWM analyses suggest that university characteristics that have received endorsement (i.e., research orientation and quality orientation in teaching) are ascribed with the greatest status value. University characteristics that have prominence in the field take the second place, as English-medium instruction receives middle to high status value, and location (establishment in larger cities) receives low to middle status value. The university characteristics that have historical legacy are perceived to rank lower since both faculty of medicine and (large) size receive low to middle status value.

As identified in the Empirical Setting section, historical legacy, endorsement, and prominence in the context of the Turkish higher education field represent past, recent, and time-independent institutional influences, respectively. In order to account for this variation in temporal distance, we did additional analyses where we compared the opinions across several stakeholder groups regarding their age. To this end, we categorized participants into four different age groups, namely 20-30, 30-40, 40-50, and above-50. After dropping the participants who did not provide age information, the numbers of participants in the age groups 20-30, 30-40, and 40-50 were 18, 21, and 10. Table 5 displays the optimal weights computed for the given age groups. Since there were only three participants in the above-50 group, our inferences below exclude this age group.

Table 5 Optimal weights of university characteristics across age groups.

	Quality in teaching	Research Orientation	Size	Faculty of Medicine	English-Medium	Location (larger cities)
20-30	0.1894	0.2954	0.0861	0.0906	0.2019	0.1367

30-40	0.1898	0.2530	0.1087	0.1306	0.1958	0.1221
40-50	0.1711	0.2915	0.1177	0.1557	0.1452	0.1188
50+	0.1556	0.2961	0.1099	0.1648	0.0965	0.1771

As can be seen from the results displayed in Table 5, the status value that the participants attribute to the presence of the faculty of medicine increases with age, while the value of English-medium instruction decreases. In a sense, the status value ascribed to university characteristics with historical legacy (faculty of medicine and size) and the status value ascribed to university characteristics that have prominence in the field (English-medium instruction and location) becomes similar when we control for participant age. There does not seem a large discrepancy among groups regarding the remaining university characteristics. All groups regard research orientation as the most significant feature, while size becomes the least appreciated attribute.

We conducted an additional analysis to see if there exist any discrepancies between the stakeholders in state versus private universities. Ownership structure represents an important divide among universities in the context of the Turkish higher education field. Despite being subject to the same higher education law in the country, private universities are distinct from state universities in terms of their governance structure, revenue generation, and employment relationship with their staff (Barblan et al., 2008). In our sample, 11 academicians and 8 students are affiliated with state universities (Group 1), whereas 10 academicians and 9 students are affiliated with private universities (Group 2). Table 6 displays the optimal weights computed for these two groups.

Table 6 Optimal weights of university characteristics according to stakeholders affiliated with state vs. private universities.

	Quality in teaching	Research Orientation	Size	Faculty of Medicine	English-Medium	Location (larger cities)
Stakeholders affiliated with state univ.	0.2038	0.2895	0.0864	0.1119	0.1693	0.1392
Stakeholders affiliated with private univ.	0.1850	0.2899	0.0893	0.1292	0.1826	0.1240

According to Table 6, status judgments of stakeholders affiliated with state and private universities are mostly consistent. Research orientation is ascribed with the greatest status value, and quality orientation in teaching follows next. Participants from private universities regard English-medium instruction as almost equally valuable as quality orientation in teaching, possibly because instruction in English has been a distinguishing feature of private universities in the context of the Turkish higher education field. Stakeholders in private universities value the faculty of medicine slightly more than the stakeholders affiliated with state universities. On the other hand, stakeholders affiliated with state universities prioritize universities' location more than the faculty of medicine. Rankings of the remaining criteria are largely the same in the state and private groups.

6 Discussion

In this research, we propose three institutional influences that serve as sources of ascribed status for organizational identity characteristics. Our empirical investigation in the context of Turkish higher education shows that stakeholders attach the highest status value to those university characteristics that have received endorsement in the field. Those university characteristics that have historical legacy (due to characterizing archetypal identities in the field) or those with prominence in the field (due to characterizing successful exemplars) are not valued to the same extent.

Our findings provide evidence for the view that institutions have a broad influence on the social hierarchy systems (O'Brien & Dietz, 2011; Pratto, Sidanus, & Levin, 2006), yet with some nuances. We observe, for instance, the more recent institutional source of status (i.e., endorsement) makes a more significant influence on the status value of organizational characteristics than the one with the historical roots. Indeed, one might expect the latter influence to be stronger since early emerging status beliefs in an organizational field are likely to be taken-for-granted, and therefore stable over time (Prato et al., 2018). This expectation is also in line with the idea of "past anchoring", which posits that templates introduced in the past will provide normative prescriptions (Chan, Lee, & Jung, 2021; King, Clemens, & Fry, 2011). Yet, this has not been the case in our empirical setting.

An immediate explanation for this may be the "temporal myopia" of audiences, that is, a tendency to focus on the short run (Greve, 2008; Levinthal & March, 1993; Miller, 2002). Yet, the additional analyses where we differentiated between stakeholder age groups provide more nuanced reasoning. We find that stakeholders at older age groups attach greater status value to university characteristics with a historical legacy, whereas they attach lower status value to university characteristics that have recently received endorsement in the field.

This observation makes sense since the older members of a field are more likely to be influenced by the status dynamics in its early history (see Marquis & Tilcsik, 2013 for a more detailed discussion of this imprinting argument). Overall, our findings suggest that there is value in taking a comprehensive approach to institutional sources of status in an organizational field, which accounts for past, present, as well as time-independent phenomena.

Our study extends existing research recognizing that organizations may gain (or lose) status based on some identity characteristics without a focus on how these characteristics are associated with such status value (Park & Podolny, 2000; Phillips & Zuckerman, 2001; Sharkey, 2014). Here, we introduce the institutional theory perspective to propose factors that shape stakeholders' status judgments with respect to organizational identity characteristics. Future research in other empirical contexts may extend our insights further by demonstrating other cognitive and normative underpinnings of ascribed status in organizational fields.

7 Conclusions

Criticizing the narrow focus in management literature on organizational status based on demonstrations of superior performance (i.e., achieved status), this study identifies the status value ascribed to organizational identity characteristics within socially constructed systems of norms and values. In this way, we provide further evidence for the idea of loose coupling between organizational status and actual performance or quality (Elsbach & Cable, 2019). Our empirical analyses in the context of the higher education field show that a wide variety of university characteristics—such as location or language of instruction—have status value, despite their lack of a direct association with higher quality or excellence. These insights help differentiate the concept of organizational status from related but distinct concepts such as reputation or image (Barron & Rolfe, 2012; Ertug & Castellucci, 2013; Park et al., 2020; Pollock et al., 2015; Washington & Zajac, 2005). Further, our study suggests that the dynamics of social hierarchies may be highly contextual, shaped by the norms and values in a particular setting.

Our findings also have important implications for strategic management theory. Intangible assets like status have strategic importance for organizations, as they provide sustainable competitive advantage (Barney, 1991). The idea of status value ascribed to organizational identity characteristics indicates strategic trade-offs with respect to internal allocation of organizational resources, which was not recognized in the prior literature (see Rosenzweig & Easton, 2010, for more on this topic). Organizations that aim to improve their social standing in the field may prioritize their investments into various identity

characteristics such as structural properties or technologies based on the status value attached to these characteristics by evaluating audiences.

An additional contribution of our study is to the literature on higher education. Concerns about status position have been an ever-present issue in higher education fields. Despite this significance of high status for university outcomes, little has been done to explore stakeholders' perceptions of status value. Existing research instead focuses on published rankings as the main indicator of university status (Dearden et al., 2019; Dill & Soo, 2005; Espeland et al., 2016; Rindova et al., 2018; Torres-Olava et al., 2020). Our demonstration of the status value attached to a wider and deeper set of university characteristics suggests that studies of status in higher education fields should take a more comprehensive perspective.

Our findings are of great value for decision making in universities and for developing state policies regarding higher education. In particular, university administrators should recognize the significance of improving the quality orientation in teaching and the research infrastructure to improve their prestige and ranking in admissions. Similarly, governmental bodies responsible for developing the budget plans for state universities might take these two factors into account in allocating the resources. In extending the investments in higher education, the government or a private body should be aware that language of instruction and faculty composition are other significant factors that may contribute to the status of a new university.

As a final contribution, our study adds to the recent trend in research applying MCDM techniques by introducing the opinions of several stakeholder groups. There are earlier examples of such research in various contexts. For instance, Garcia et al. (2016) consider alternative management options for sustainable corporate development from a stakeholder versus shareholder perspective. Soltani et al. (2015) present a review of the MCDM studies that have considered multiple stakeholders such as government, municipalities, and the public in the Municipal Solid Waste Management problem. Scott et al. (2015) develops a decision support model to aid with supplier selection and order allocation process of companies in a multi-stakeholder setting. Our insights indeed suggest that this multi-stakeholder perspective may be especially relevant in contexts like higher education, where the stakeholder community is broad and potentially fragmented. Although we observe some heterogeneity in the opinions of different categories of stakeholders (academicians, students, counsellors, and managers), age groups, and public/private affiliation, our conclusions in this respect are limited since we did not conduct a systematic investigation of stakeholder heterogeneity. Future research may study this fragmentation in the stakeholder community and its implications on decision making.

The fact that our research is conducted in a single empirical context may raise concerns about whether our findings are specific to the Turkish higher education field. In fact, studies in other contexts of higher education observed that audiences differentiate between universities based on their language of instruction (Lau & Lin, 2017) or ownership structure (Marginson, 2007). Still, the perceived value of organizational characteristics may be shaped by various contextual influences (Collins & Park, 2016). In this respect, future studies on social evaluation dynamics in other organizational fields would increase confidence in the generalizability of our findings and conclusions.

Methodologically, our use of the BWM technique to compare the worth of organizational characteristics in the eyes of stakeholders introduces an important novelty. This method may be superior to the direct ratings of organizations, which are increasingly common in organizational fields, yet suffer from various types of rater bias (Bromley & Powell, 2012; Salmi & Saroyan, 2007). Other MCDM techniques such as the analytical hierarchy process (AHP) can also be applied to document the relative valence of organizational characteristics, which will then serve to validate published ratings and rankings of organizations.

References

- Altbach, P. G., & Salmi, J. (Ed.). (2011). *The road to academic excellence: The making of world-class research universities*. The World Bank.
- Askin, N., & Bothner, M. S. (2016). Status-aspirational pricing: The "Chivas Regal" strategy in US higher education, 2006–2012. *Administrative Science Quarterly*, 61(2), 217-253.
- Barblan, A., Ergüder, Ü., & Gürüz, K. (2008). *Higher education in Turkey: Institutional autonomy and responsibility in a modernising society*. Bononia University Press, Bologna.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barron, D. N., & Rolfe, M. (2012). It ain't what you do, it's who you do it with: Distinguishing reputation and status. In M. L. Barnett & T. G. Pollock (Eds.), *Oxford handbook of corporate reputation*: 160–178. Oxford: Oxford University Press.
- Baum, J. A., Calabrese, T., & Silverman, B. S. (2000). Don't go it alone: Alliance network composition and startups' performance in Canadian biotechnology. *Strategic Management Journal*, 21(3), 267-294.

- Benjamin, B. A., & Podolny, J. M. (1999). Status, quality and social order in the California wine industry. *Administrative Science Quarterly*, 44: 563-589.
- Bitektine, A. (2011). Toward a theory of social judgments of organizations: The case of legitimacy, reputation, and status. *Academy of management review*, 36(1), 151-179.
- Bloch, R., & Mitterle, A. (2017). On stratification in changing higher education: the "analysis of status" revisited. *Higher Education*, 73(6), 929-946.
- Bothner, M. S., Kim, Y. K., & Smith, E. B. (2012). How does status affect performance? Status as an asset vs. status as a liability in the PGA and NASCAR. *Organization Science*, 23(2), 416-433.
- Bourdieu, P., & Wacquant, L. (2013). Symbolic capital and social classes. *Journal of Classical Sociology*, 13(2), 292-302.
- Breznik, K., & Law, K. M. (2019). What do mission statements reveal about the values of top universities in the world? *International Journal of Organizational Analysis*, 27(5), 1362-1375.
- Bromley, P., & Powell, W. W. (2012). From smoke and mirrors to walking the talk: Decoupling in the contemporary world. *Academy of Management Annals*, 6(1), 483-530.
- Budhwar, P. (2000). The use of visual card sorting technique to study managers' belief structure—An international comparative study. *Journal of Managerial Psychology*, 15(5), 440-455.
- Caballero, R., Galache, T., Gómez, T., Molina, J., & Torrico, A. (2004). Budgetary allocations and efficiency in the human resources policy of a university following multiple criteria. *Economics of Education Review*, 23(1), 67-74.
- Campbell, C. M., Jimenez, M., & Arrozal, C. A. N. (2019). Prestige or education: college teaching and rigor of courses in prestigious and non-prestigious institutions in the US. *Higher Education*, 77(4), 717-738.
- Chae, H., Song, J., & Lange, D. (2020). Basking in reflected glory: Reverse status transfer from foreign to home markets. *Strategic Management Journal*.
- Chan, T., Lee, G. Y., & Jung, H. (2021). Anchored Differentiation: The Role of Temporal Distance in the Comparison and Evaluation of New Product Designs. *Organization Science*
- Chen, Y. R., Peterson, R. S., Phillips, D. J., Podolny, J. M., Ridgeway, C. L. (2012). Introduction to the Special Issue: Bringing Status to the Table—Attaining, Maintaining, and Experiencing Status in Organizations and Markets, *Organization Science*, 23, 299–307.
- Collins, F. L., & Park, G. S. (2016). Ranking and the multiplication of reputation: reflections from the frontier of globalizing higher education. *Higher Education*, 72(1), 115-129.
- Correll, S. J., & Ridgeway, C. (2003). "Expectation States Theory." In *Handbook of Social Psychology*, J. Delamater (ed.), pp. 29-51. New York: Springer.
- Council of Higher Education. (2014). Annual Higher Education Statistics (Yükseköğretim İstatistikleri). Available at: www.istatistik.yok.gov.tr.
- Daniels, K., Johnson, G., and De Chernatony, L. (2002). Task and institutional influences on managers' mental models of competition. *Organization Studies*, 23: 31-62.
- Davies, S., and Zarifa, D. (2012). The stratification of universities: Structural inequality in Canada and the United States. *Research in Social Stratification and Mobility*, 30, 143-158.

- Dearden, J. A., Grewal, R., & Lilien, G. L. (2019). Strategic manipulation of university rankings, the prestige effect, and student university choice. *Journal of Marketing Research*, 56(4), 691-707.
- Dill, D. D., & Soo, M. (2005). Academic quality, league tables, and public policy: A cross-national analysis of university ranking systems. *Higher Education*, 49(4), 495-533.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147-160.
- Elsbach, K. D., & Cable, D. M. (2019). Explaining stakeholder identification with moderate prestige collectives: A study of Nascar fans. *Organization Studies*, 40(9), 1279-1305.
- Ertug, G., & Castellucci, F. (2013). Getting what you need: How reputation and status affect team performance, hiring, and salaries in the NBA. *Academy of Management Journal*, 56, 407-431.
- Espeland, W. N., Sauder, M., & Espeland, W. (2016). *Engines of anxiety: Academic rankings, reputation, and accountability*. Russell Sage Foundation.
- Foladare, I. S. (1969). A clarification of "ascribed status" and "achieved status". *The Sociological Quarterly*, 10(1), 53-61.
- Fombrun, C., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy of Management Journal*, 33(2), 233-258.
- Garcia, S., Cintra, Y., Rita de Cássia, S. R., & Lima, F. G. (2016). Corporate sustainability management: a proposed multi-criteria model to support balanced decision-making. *Journal of Cleaner Production*, 136, 181-196.
- Goode, W. J. (1978). *The celebration of heroes: Prestige as a control system*. Berkeley.
- Greenwood, R., & Hinings, C. R. (1993). Understanding strategic change: The contribution of archetypes. *Academy of Management Journal*, 36, 1052-1081.
- Greve, H. R. (2008). A behavioral theory of firm growth: Sequential attention to size and performance goals. *Academy of Management Journal*, 51(3), 476-494.
- Gürüz, K. (2008). *Yirmi Birinci Yüzyılın Başında Türk Milli Eğitim Sistemi*. İstanbul: Türkiye İş Bankası Kültür Yayınları.
- Haack, P., Pfarrer, M. D., & Scherer, A. G. (2014). Legitimacy-as-feeling: How affect leads to vertical legitimacy spillovers in transnational governance. *Journal of Management Studies*, 51(4), 634-666.
- Hannan M. T., Pólos L., Carroll G. R. (2007). *Logics of organization theory: Audiences, codes, and ecologies*. Princeton University Press.
- Haunschild, P. R., & Miner, A. S. (1997). Modes of interorganizational imitation: The effects of outcome salience and uncertainty. *Adm. Sci. Quart.*, 42(3),472-500.
- Hein, N., Kroenke, A., & Júnior, M. M. R. (2015). Professor assessment using multi-criteria decision analysis. *Procedia Computer Science*, 55, 539-548.
- Heugens, P. P., & Lander, M. W. (2009). Structure! Agency!(and other quarrels): A meta-analysis of institutional theories of organization. *Academy of Management Journal*, 52(1), 61-85.
- Ho, W., Dey, P. K., & Higson, H. E. (2006). Multiple criteria decision-making techniques in higher education. *International Journal of Educational Management*, 20, 319-337.
- Holland, M. M., & Ford, K. S. (2020). Legitimizing Prestige through Diversity: How Higher Education Institutions Represent Ethno-Racial Diversity across Levels of Selectivity. *The Journal of Higher Education*, 92(1), 1-30.

- Horta, H. (2009). Global and national prominent universities: internationalization, competitiveness and the role of the State. *Higher Education*, 58, 387-405.
- Hsu, G., & Hannan, M. T. (2005). Identities, genres, and organizational forms. *Organization Science*, 16(5), 474-490.
- Jasso G. (2001). Studying status: An integrated framework. *Am. Soc. Rev.*, 66(1), 96-124.
- Kakkar, H., Sivanathan, N., & Gobel, M. S. (2020). Fall from grace: The role of dominance and prestige in the punishment of high-status actors. *Academy of Management Journal*, 63(2), 530-553.
- King, B. G., Clemens, E. S., & Fry, M. (2011). Identity realization and organizational forms: Differentiation and consolidation of identities among Arizona's charter schools. *Organization Science*, 22(3), 554-572.
- Kraatz, M. S. (1998). Learning by association? Interorganizational networks and adaptation to environmental change. *Academy of Management Journal*, 41(6), 621-643.
- Kraatz, M. S., Ventresca, M. J., and Deng, L. 2010. "Precarious values and mundane innovations: Enrollment management in American liberal arts colleges." *Academy of Management Journal*, 53: 1521-1545.
- Lau, K., & Lin, C. Y. (2017). Internationalization of higher education and language policy: The case of a bilingual university in Taiwan. *Higher Education*, 74(3), 437-454.
- Lee, B. H., Hiatt, S. R., & Lounsbury, M. (2017). Market mediators and the trade-offs of legitimacy-seeking behaviors in a nascent category. *Organization Science*, 28(3), 447-470.
- Levinthal, D. A., & March, J. G. (1993). The myopia of learning. *Strategic Management Journal*, 14(2), 95-112.
- Marginson, S. (2007). The public/private divide in higher education: A global revision. *Higher education*, 53(3), 307-333.
- Marquis, C., & Tilcsik, A. (2013). Imprinting: Toward a multilevel theory. *Academy of Management Annals*, 7(1), 195-245.
- Massey D., Charles C., Lundy G., Fischer M. 2003. *The Source of the River: The Social Origins of Freshmen at America's Selective Colleges and Universities*. Princeton, NJ: Princeton University Press.
- Miller, K. D. (2002). Knowledge inventories and managerial myopia. *Strategic management journal*, 23(8), 689-706.
- Mohammadi, M., & Rezaei, J. (2020). Bayesian best-worst method: A probabilistic group decision making model. *Omega*, 96, 102075.
- Mustafa, A., & Goh, M. (1996). Multi-criterion models for higher education administration. *Omega*, 24(2), 167-178.
- O'Brien, J. A. M. E. S., & Dietz, J. O. E. R. G. (2011). Maintaining but also changing hierarchies: What social dominance theory has to say. *Status in management and organizations*, 55-84.
- Okyar, O. (1967). Universities in Turkey. *Minerva*, 6(2): 213-243.
- Park, D. Y., & Podolny, J. M. (2000). The competitive dynamics of status and niche width: US investment banking, 1920-1949. *Industrial and Corporate Change*, 9(3), 377-414.
- Park, S., Yang, D., Cha, H., & Pyeon, S. (2020). The Halo Effect and Social Evaluation: How Organizational Status Shapes Audience Perceptions on Corporate Environmental Reputation. *Organization & Environment*, 33(3), 464-482.

- Pearce, J. L. (2011). Introduction: the power of status. In *Status in Management and Organizations*, ed. JL Pearce, pp. 1–22. New York: Cambridge Univ. Press
- Peteraf, M., & Shanley, M. (1997). Getting to know you: A theory of strategic group identity. *Strategic Management Journal*, 18, 165-186.
- Pfarrer, M. D., Pollock, T. G., & Rindova, V. P. (2010). A tale of two assets: The effects of firm reputation and celebrity on earnings surprises and investors' reactions. *Academy of Management Journal*, 53: 1131-1152.
- Phillips, D. J., & Zuckerman, E. W. (2001). Middle-status conformity: Theoretical restatement and empirical demonstration in two markets. *American Journal of Sociology*, 107, 379-429.
- Phillips, D., & Podolny, J. M. (1996). The dynamics of organizational status. *Industrial and Corporate Change*, 5: 453–471.
- Piazza, A., & Castellucci, F. (2014). Status in organization and management theory. *Journal of Management*, 40(1), 287-315.
- Podolny, J. M. (1993). A status-based model of market competition, *American Journal of Sociology*, 98, 829-872.
- Pollock, T. G., Lashley, K., Rindova, V. P., & Han, J. H. (2019). Which of these things are not like the others? Comparing the rational, emotional, and moral aspects of reputation, status, celebrity, and stigma. *Academy of Management Annals*, 13(2), 444-478.
- Pólos, L., Hannan, M. T., & Carroll, G. R. (2002). Foundations of a theory of social forms. *Industrial and Corporate Change*, 11(1), 85-115.
- Porac, J. F., Thomas, H., Wilson, F., Paton, D., & Kanfer, A. (1995). Rivalry and the industry model of Scottish knitwear producers. *Administrative Science Quarterly*, 40, 203-227.
- Prato, M., Kypraios, E., Ertug, G., & Lee, Y. G. (2019). Middle-status conformity revisited: The interplay between achieved and ascribed status. *Academy of Management Journal*, 62(4), 1003-1027.
- Pratto, F., Sidanius, J., & Levin, S. (2006). Social dominance theory and the dynamics of intergroup relations: Taking stock and looking forward. *European Review of Social Psychology*, 17(1), 271-320.
- Rao, H. (1994). The social construction of reputation: Certification contests, legitimation, and the survival of organizations in the American automobile industry: 1895–1912. *Strategic Management Journal*, 15(1), 29-44.
- Rao, H., Monin, P., & Durand, R. (2005). Border crossing: Bricolage and the erosion of categorical boundaries in French gastronomy. *American Sociological Review*, 70(6), 968-991.
- Rezaei, J. (2015). Best-worst multi-criteria decision-making method. *Omega*, 53, 49-57.
- Rezaei, J. (2016). Best-worst multi-criteria decision-making method: Some properties and a linear model. *Omega*, 64, 126-130.
- Rider, C. I., & Negro, G. (2015). Organizational failure and intraprofessional status loss. *Organization Science*, 26, 633–649.
- Ridgeway, C. L. (1991). The Social Construction of Status Value: Gender and other Nominal Characteristics. *Soc. Forces*. 70(2), 367-86.
- Rindova V. P., Martins L. L., Srinivas S. B., & Chandler D. (2018). The good, the bad, and the ugly of organizational rankings: A multidisciplinary review of the literature and directions for future research. *Journal of Management*, 44(6), 2175-2208.

- Rosa, J. A., Porac, J. F., Runser-Spanjol, J., & Saxon, M. S. (1999). Sociocognitive dynamics in a product market. *Journal of Marketing*, 63, 64-77.
- Rosenzweig, E.D., & Easton, G.S. (2010). Trade-offs in manufacturing? A meta-analysis and critique of the literature. *Production and Operations Management*, 19(2), 127-141.
- Sauder, M. (2006). Third parties and status systems: how the structures of status systems matter. *Theory Soc.*, 35, 299–321
- Sauder, M., and Espeland, W. N. (2009). The discipline of rankings: Tight coupling and organizational change. *American Sociological Review*, 74, 63-82.
- Sauder, M., Lynn, F., & Podolny, J. M. (2012). Status: Insights from organizational sociology. *Annual Review of Sociology*, 38, 267-283.
- Scott, J., Ho, W., Dey, P. K., & Talluri, S. (2015). A decision support system for supplier selection and order allocation in stochastic, multi-stakeholder and multi-criteria environments. *International Journal of Production Economics*, 166, 226-237.
- Sharkey, A. J. (2014). Categories and Organizational Status: The Role of Industry Status in the Response to Organizational Deviance. *American Journal of Sociology*, 119(5), 1380-1433.
- Soltani, A., Hewage, K., Reza, B., & Sadiq, R. (2015). Multiple stakeholders in multi-criteria decision-making in the context of municipal solid waste management: a review. *Waste Management*, 35, 318-328.
- Stuart, T. E., Hoang, H., & Hybels, R. C. (1999). Interorganizational endorsements and the performance of entrepreneurial ventures. *Administrative Science Quarterly*, 44(2), 315-349.
- Student Selection and Placement Center. (2014). Annual Central University Examination Manuals (Yükseköğretim Programları ve Kontenjanları Kılavuzu). Available at: <https://www.osym.gov.tr/TR,851/2014.html>.
- Tekeli, İ. (2010). Tarihsel Bağlamı içinde Türkiye’de Yükseköğretimin ve YÖK’ün Tarihi. İstanbul: Tarih Vakfı Yurt Yayınları.
- Thomas-Hunt, M. C., & Phillips, K. W. (2011). The malleability of race in organizational teams: A theory of racial status activation. In J. L. Pearce (Ed.), *Status in management and organizations*: 238–266. Cambridge, UK: Cambridge University Press.
- Torres-Olave, B., Brown, A. M., Franco Carrera, L., & Ballinas, C. (2020). Not waving but striving: research collaboration in the context of stratification, segmentation, and the quest for prestige. *The Journal of Higher Education*, 91(2), 275-299.
- Topaler, B., Koçak, Ö., & Üsdiken, B. (2021) “Positioning new identities for appeal: Configurations of optimal distinctiveness amid ancestral identities”, *Strategic Organization*, doi.org/10.1177/1476127021999966.
- Triantaphyllou, E. (2000). Multi-criteria decision making methods, in *Multi-criteria decision making methods: A comparative study*. Springer, Boston, MA, 5-21.
- Üsdiken, B., Topaler, B., & Koçak, Ö. (2013). Yasa, Piyasa ve Örgüt Tiplerinde Çeşitlilik: 1981 Sonrasında Türkiye’de Üniversiteler. *Ankara Üniversitesi Siyasal Bilgiler Fakültesi Dergisi*, 68(3), 187-223.
- Vigneron, F., & Johnson, L. W. (1999). A review and a conceptual framework of prestige-seeking consumer behavior. *Academy of Marketing Science Review*, 1(1), 1-15.
- Washington, M., & Zajac, E. J. (2005). Status evolution and competition: Theory and evidence. *Academy of Management Journal*, 48, 282–296.

- Weber, M. (1978). *Economy and society: An outline of interpretive sociology*. In G. Roth & G. Wittich (Eds.), vol. II: 956-975, 980-989. Berkeley: University of California Press.
- Zamparini, A., & Lurati, F. (2017). Being different and being the same: Multimodal image projection strategies for a legitimate distinctive identity. *Strategic Organization*, 15(1), 6-39.
- Zuckerman, E. W., & Kim, T. Y. (2003). The critical trade-off: identity assignment and box-office success in the feature film industry. *Industrial and Corporate Change*, 12(1), 27-67.

Appendix

Table S1 Sample statistics for interview participants.

Stakeholder group	Sample size	Gender	Residence
Students	10	5 females, 5 males	4 in small cities, 6 in large cities
Academicians	10	6 females, 4 males	3 in small cities, 7 in large cities
Counsellors	10	3 females, 7 males	2 in small cities, 8 in large cities
Managers	10	8 females, 2 males	3 in small cities, 7 in large cities