# BEING GOOD OR BEING KNOWN: AN EMPIRICAL EXAMINATION OF THE DIMENSIONS, ANTECEDENTS, AND CONSEQUENCES OF ORGANIZATIONAL REPUTATION

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# BEING GOOD OR BEING KNOWN: DIMENSIONS, ANTECEDENTS, AND CONSEQUENCES OF ORGANIZATIONAL REPUTATION

#### **ABSTRACT**

Management researchers recognize organizational reputation as a valuable intangible asset that contributes to organizational performance. However, they have paid limited attention to the extent to which reputation encompasses different stakeholders' perceptions that may have differential effects on the positive economic outcomes associated with the possession of a favorable reputation. In this paper we argue that organizational reputation consists of two dimensions that reflect: (1) the extent to which stakeholders perceive an organization as being able to produce quality goods; and (2) the extent to which the organization is prominent in the minds of stakeholders. We develop and test a model of the distinct antecedents and consequences of these dimensions of reputation in the empirical context of U.S. business schools. We find that prominence, which derives from the choices of influential third parties vis-à-vis an organization, contributes significantly to the price premium associated with the possession of a favorable reputation.

The concept of reputation, defined as stakeholders' perceptions about an organization's ability to create value relative to competitors, has received considerable attention from organizational scholars (Deephouse, 2000; Elsbach & Kramer, 1996; Fombrun & Shanley, 1990; Fombrun, 1996; Hall, 1992, 1993; Martins, 1998). Reputation is viewed as a valuable intangible asset that provides a firm with sustainable competitive advantages (Barney, 1991; Hall, 1992) because it influences stakeholders' economic choices vis-à-vis the organization (Benjamin & Podolny, 1999; Dollinger, Golden & Saxton, 1997; Deephouse, 2000) and contributes to differences in organizational performance. Indeed, numerous studies have documented a positive relationship between a firm's reputation and its financial performance (Fombrun & Shanley, 1990; Podolny, 1993; Roberts & Dowling, 2002).

Whereas this research has demonstrated unambiguously that a favorable organizational reputation is associated with economic benefits, it offers a less clear picture of what reputation actually is and how it is formed. A review of extant research on organizational reputation in management, economics, sociology, and marketing reveals that two schools of thought inform the construct's definition. Scholars studying reputation from an economics perspective tend to define it as the observers' expectations or estimations of a particular organizational attribute (Weigelt & Camerer, 1988; Milgrom & Roberts, 1986), especially the organization's ability to produce quality products (Milgrom & Roberts, 1986; Shapiro, 1983). According to this perspective reputation forms on the basis of past actions, through which firms signal to stakeholder their "true" attributes (Clark & Montgomery, 1998; Weigelt & Camerer, 1999).

A different perspective is presented by scholars who draw on institutional theory to understand reputation (Rao, 1994). These scholars tend to characterize it as a global impression, which represents how a collective – a stakeholder group or multiple stakeholder groups in the organizational field – perceive a firm (Fombrun, 1996; Hall, 1992; Rao, 1994). According to this

perspective reputation forms as a result of information exchanges and social influence among various actors interacting in an organizational field (Rao, 1994; Rindova & Fombrun, 1999).

The different ways in which scholars working from an economics or institutional perspective view reputation suggest that research in the area can be advanced by greater integration in the conceptualization of the construct. In this paper we integrate these two perspectives by proposing that they are concerned with two distinct dimensions of reputation. The economics perspective is concerned with how stakeholders evaluate a particular organizational attribute and therefore, emphasizes the perceived quality dimension of organizational reputation. In contrast, the institutional perspective is concerned with the collective awareness and recognition that an organization has accumulated in its organizational field and therefore, emphasizes the prominence dimension of organizational reputation. Conceptualizing organizational reputation as consisting of two interrelated but distinct dimensions advances reputation research by providing greater conceptual clarity about what reputation is, how it is built, and how it influences organizational economic outcomes.

Drawing on the work conducted from both the economics and institutional perspectives we develop and test a model of the antecedents and consequences of these two dimensions of organizational reputation. We propose that perceived quality is influenced by the signals that organizations send when they make strategic choices about the resources deployed in producing products and services. Conversely, prominence is influenced by the choices that influential third parties, such as institutional intermediaries and high-status actors, make vis-à-vis the organization (Deephouse, 2000; Pollock & Rindova, 2003; Rao, 1994; Stuart, 2000).

Our study further advances reputation research by examining several alternative models that specify different sets of relationships among the antecedents and consequences of reputation. The development and testing of such alternative models is important because scholars have argued that the creation of reputation is causally ambiguous (Barney, 1991). By comparing the alternative models to the hypothesized model, we provide greater theoretical clarity about how reputation is built.

We empirically investigate these relationships in the context of U.S. business schools with full-time MBA programs. We focus on the effect of business schools' reputations on corporate recruiters, who seek to reduce uncertainty about the quality of business school graduates as potential hires. Because the quality of MBA graduates is difficult to evaluate a priori, recruiters' demand for MBA graduates is likely to be strongly influenced by business schools' reputations. Therefore, the context of our study is particularly appropriate for examining the dimensions, antecedents, and consequences of reputation.

#### THEORY AND HYPOTHESES

# Perspectives on Organizational Reputation

Organizational scholars studying reputation recognize that reputation is valuable because it reduces the uncertainty stakeholders face in evaluating firms as potential suppliers of needed products and services (Weigelt & Camerer, 1988; Benjamin & Podolny, 1999). Scholars working from different theoretical perspectives, however, differ in their explanations of how reputation reduces stakeholder uncertainty. Those studying reputation from an economics perspective view uncertainty as a function of the information asymmetries between competing firms and their stakeholders. Firms reduce information asymmetries, and thus market uncertainty, when they make choices that reveal their "true" attributes. Such choices serve as signals that enable buyers to assess relevant firm attributes, such as whether a firm is a producer of high or low quality goods (Shapiro, 1983; Fombrun & Shanley, 1990). Therefore, from an economics perspective, reputation influences organizational economic outcomes by reducing stakeholders' concerns about the quality of firms' products and inducing them to pay price premiums for their products (Shapiro, 1982; 1983).

Scholars that embrace an institutional perspective on reputation maintain that the uncertainty about the "true" attributes of firms is reduced through the exchange of information among diverse

actors in the organizational field. In an organizational field, they argue, certain actors such as institutional intermediaries and high-status actors, have superior ability to access or disseminate information by virtue of their institutional roles or structural positions (Rao, 1998; Rao, Greve & Davis, 2001). The choices of such actors are closely watched by stakeholders because of their perceived superiority in evaluating firms (Rao, 1998; Stuart, 2000). As a result, their actions introduce systematic disparities in the availability of information about different organizations, thereby making some more salient and central in the public mind (Rao et al., 2001; Zuckerman, 1999). For example, Pollock and Rindova (2003) show that the volume of media coverage firms receive is positively related to their IPO performance. Similarly, Zuckerman (1999) shows that whether a firm is covered or not by a particular analyst affects how investors value it. Overall, the information conveyed through the choices of influential third parties vis-à-vis organizations decouples the reputation building process from the strategic signals of competing firms (Rao, 1994) and makes some firms more prominent in their organizational fields (Stuart, Hoang & Hybels, 1999; Rindova & Fombrun, 1999). The institutional perspective therefore suggests that the extent to which an organization is widely recognized among stakeholders in the organizational field and stands out relative to competitors, may be an important dimension of organizational reputation.

These two perspectives on organizational reputation have shaped the definitions of the construct in the fields of management, economics, sociology, and marketing. Reviewing over 60 studies using the construct of organizational reputation in these fields, we observe that scholars tend to define reputation either as specific assessments of a relevant attribute (e.g. ability to produce quality) as the economics perspective suggests, or as collective knowledge about and recognition of the firm, as the institutional perspective suggests. Table 1 summarizes the definitions of reputation across these studies, highlighting which perspective on reputation they espouse in column 3.

Insert Table 1 about here

Comparing the similarities and differences in the definitions of reputation in extant research we propose that organizational reputation can be conceptualized as comprising two dimensions: (1) a perceived quality dimension, which captures the degree to which stakeholders evaluate an organization positively on a specific attribute, such as ability to produce quality products; and (2) a prominence dimension, which captures the degree to which an organization receives large-scale collective recognition in its organizational field.

These two dimensions of reputation are likely to have different antecedents. Perceptions of quality are likely to be influenced by signals based on organizational strategic choices regarding the resources they use to produce goods and services. This is because such choices convey information about organizations' underlying capabilities to produce quality products (Barney, 1991; Moran & Ghoshal, 1999). In contrast, prominence is likely to be influenced by the choices of influential third parties, such as institutional intermediaries and high-status actors, whose attention to or affiliation with organizations may be seen as a form of endorsement of these organizations (Pollock & Rindova, 2003; Rao, 1998; Stuart, 2000). Figure 1 depicts the relationships between the resource signals emitted by the organization and its perceived quality, and between certifications from institutional intermediaries, affiliation with high-status actors and prominence. The model further suggests that perceived quality impacts prominence, and that each of them directly influences an organization's economic pay-offs.

# Insert Figure 1 about here

#### Antecedents of Perceived Quality

To evaluate the quality they can expect from a provider of goods, stakeholders rely on signals that "reveal" the unobservable attributes that affect the ability of a firm to produce quality products (Shapiro, 1982, 1983). While economists stress that "uncertainty about quality is a widespread and important feature of markets for most firms' goods and services" (Shapiro, 1982:

20), products and services differ in the amount of uncertainty about quality they present buyers with. The more difficult it is for customers to assess product quality prior to purchase, the more they are likely to rely on strategic signals to form expectations about quality. In particular, customers are likely to rely on signals of quality when the products they are purchasing can only be evaluated with use and over time, or require high levels of specialized expertise to evaluate. Examples of such products and services include new production technologies, custom-built information systems, and legal or management consulting advice. When customers find product quality difficult to evaluate prior to purchase, they may use the quality of inputs and/or the quality of the productive assets a firm uses to convert inputs into outputs to form expectations about the quality of the final product.

The inputs an organization uses in its production process can serve as signals of quality because they affect the quality of the final products (Barney, 1991; Moran & Ghoshal, 1999). To provide stakeholders with reliable signals of quality the strategic choices of firms must be costly and unavailable to all competitors (Ippolito, 1990). The acquisition and use of high quality inputs is costly and not common to all competitors (Barney, 1986; Ippolito, 1990; Shapiro, 1983) and therefore can provide stakeholders with signals that influence perceived quality. "Intel inside" and "Nutrasweet" are examples of input brands used by PC and soft-drink manufacturers to signal the quality of their own products. Based on this logic we hypothesize that:

Hypothesis 1: The higher the quality of inputs that an organization uses in its production or service delivery processes, the higher its perceived product quality.

The quality of the productive assets of a firm, and especially the quality of its knowledge assets, can also be used as a signal of quality. For example, Rindova and Kotha (2001: 1269) report that Excite attempted to signal the quality of its Web site content by introducing "personality-driven reviews" offered by a team of journalists, who were nationally renown experts in their areas. Similarly, Audretsch and Stephan (1996) identify that a key function of top-notch scientists in

biotechnology firms is to signal to stakeholders the quality of a firm's research capability. These arguments suggest that the perceived quality dimension of an organization's reputation will be influenced by the quality of the productive assets it uses. Therefore, we hypothesize that:

Hypothesis 2: The higher the quality of the productive assets that an organization uses in its production or service delivery processes, the higher its perceived product quality.

#### **Antecedents of Prominence**

While the resource choices of organizations convey information that stakeholders can use to make inferences about their abilities to produce quality, the choices and opinions of third parties visà-vis these organizations may influence their prominence. This is because under conditions of uncertainty individuals look to the opinions and choices of others to make up their own minds (Rao, Davis & Ward, 2000; Rao et al., 2001). As a result, the formation of public opinions tends to follow a "social influence" logic leading some organizations to gain disproportionate amounts of public attention and support on the basis of rather general and non-specific impressions and beliefs (Kuran & Sunstein, 1999). Such organizations become prominent within the organizational field and may be preferred as suppliers of goods, even in the absence of stakeholders' specific judgments about their ability to produce quality goods.

Two types of actors -- institutional intermediaries and high-status actors (Kuran & Sunstein, 1999; Rao et al., 2001) – are likely to have a particularly strong influence on an organization's prominence. *Institutional intermediaries* are entities that specialize in disseminating information about organizations or in evaluating their outputs (Fombrun, 1996; Rao, 1998). By virtue of their specialization in collecting and disseminating information, institutional intermediaries are likely to be viewed as having superior access to information and/or expertise in evaluating an organization (Rao, 1998). Further, the information and evaluations provided by institutional intermediaries about an organization tend to be distributed more broadly than the opinions of the average stakeholder. As a

result, they are likely to have high degree of influence on which organizations become prominent in the minds of stakeholders. Both general and expert intermediaries may influence prominence.

General intermediaries (e.g., the media) are those that provide general information on a broad set of issues, while expert intermediaries (e.g., Moody's Investor Services debt ratings) are those providing technical evaluations and certifications that often require specialized expertise (Fombrun, 1996).

The media are a type of general intermediary, whose impact on stakeholders' perceptions derives primarily from their ability to focus public attention on the issues and entities that they select to report on (Deephouse, 2000; Pollock & Rindova, 2003). In recent years media organizations have also begun to offer stakeholders direct evaluations of organizations in the form of various rankings and ratings. For example, Fortune's list of "America's Most Admired Corporations" has become a widely monitored measure of organizational reputation (Roberts & Dowling, 2002). Media rankings have also become an important factor in determining the reputations of business schools (Martins, 1998; Gioia & Corley, 2002). Although the media often seek to position their rankings as evaluations of quality, empirical tests of such rankings show that they tend to be rather "noisy" and inconsistent indicators of quality (Dichev, 1999). This finding is not surprising given that ratings and rankings collapse the diverse and complex information necessary to evaluate organizational quality into a single number. However, it is precisely this synoptic nature of rankings that may cause them to have a strong impact on an organization's prominence. By offering "ready-made" evaluations of organizations' relative standing media rankings reduce stakeholders' need to evaluate the attributes and quality of an organization directly (Rindova & Fombrun, 1999). As a result, stakeholders can use media rankings as an overall evaluation of whether an organization is among the top in its industry.

Therefore, we hypothesize that:

Hypothesis 3: The higher an organizations' rank in media rankings, the greater its prominence in the minds of stakeholders.

Expert intermediaries are also likely to impact the prominence of organizations. While some expert intermediaries do offer direct evaluations of product quality (e.g. Consumer Reports), many are likely to impact the prominence of organizations by certifying their level of achievement relative to explicit or implicit standards of excellence in a given field. Since expert intermediaries subject organizations to rigorous scrutiny using specialized knowledge that is necessary to evaluate the more complex aspects of organizational operations and outputs, few organizations receive such certifications from expert intermediaries, and those who do, tend to stand out among their competitors in their industries. For example, the Baldrige award and ISO 9000 status certify a level of quality achievement in business as determined by third party panels of experts. In the field of science, publications in premier scholarly journals certify the degree to which scientists produce knowledge that is novel, objective, and cumulative and therefore, satisfies the institutional norms associated with modern science (Merton, 1972; Clemens, Powell, McIlwiane & Okamoto, 1995). Because of the rigorous scrutiny to which expert intermediaries subject scientific research, very few scientists receive such certifications. Receiving certifications of achievement from expert intermediaries increases the visibility of those few organizations that meet the standards of expert intermediaries causing stakeholders to view these organization as being among the top in their industry. Therefore, we hypothesize that:

Hypothesis 4: The greater the extent to which expert intermediaries provide an organization with certifications of achievement, the greater its prominence in the minds of stakeholders.

Affiliation with high status actors may also increase organizational prominence. Affiliation with high-status actors increases prominence because such affiliation enables stakeholders to assume that the high-status actors, who are believed to be well informed, have evaluated the organization positively (Stuart, 2000). High-status actors themselves tend to garner a disproportionate amount of attention within their organizational field (Rao et al., 2000). As a result, affiliation with them may

generate positive spill-over effects (Stuart et al., 1999), such as "basking in reflected glory," which refers to the transfer of a positive evaluation from one social object to another (Cialdini, Borden, Thorne, Walker, Freeman & Sloan, 1976). Thus, ties to high status actors are likely to enhance the prominence of an organization leading us to hypothesize that:

Hypothesis 5: The greater the extent of an organization's affiliation with high-status actors, the greater its prominence in the minds of stakeholders.

# The Relationship between Perceived Quality and Prominence

In the preceding sections we argued that perceived quality and prominence are two distinct dimensions of organizational reputation that also have different antecedents. These two dimensions, however, are likely to be related because they reflect a common concern for stakeholders with identifying providers of high quality goods. The prominence dimension of reputation reflects the degree to which opinions about an organization's ability to produce quality and create value are disseminated among its stakeholders. Opinions about an organization disseminate throughout the organizational field not only through the actions and choices of intermediaries, but also through the purchasing behaviors or opinion statements of various stakeholders themselves (Nayyar, 1990; Rogerson, 1983). As a result, organizations that customers perceive as having high quality are likely to be mentioned or patronized more frequently leading more customers to choose them in the future. The aggregate of these choices makes such organizations more widely recognized within the organizational field (Kuran & Sunstein, 1999). Therefore, customer perceptions of quality can contribute to an increase in an organization's prominence, leading us to hypothesize that:

Hypothesis 6: The higher the perceived product quality of an organization, the greater its prominence in the minds of stakeholders.

# **Reputation and Price Premium**

Because reputation reduces stakeholder uncertainty about the value of future exchanges, favorable reputation can induce buyers to pay a price premium (Rao & Monroe, 1996; Shapiro, 1983). As we argued earlier, both prominence and perceived quality reduce buyers' uncertainty, but they do so through different mechanisms. Perceived quality is likely to have a positive effect on the prices that customers are willing to pay because it increases their confidence in the quality of an organization's goods. Higher prices serve as an assurance that a producer organization has no incentives to increase its profits by reducing investments that lead to quality products (Shapiro, 1983). According to Shapiro (1983: 661), the price premium that producers with reputation for quality can charge can be viewed "either as a return on reputation or as an incentive payment to induce quality maintenance." Thus, based on extant theory we predict that perceived quality is associated with higher price premiums.

Hypothesis 7: The higher the perceived product quality of an organization, the higher the price premiums associated with its products.

Prominence reduces stakeholder uncertainty through "social proof" (Rao, et al., 2000, 2001), because it reflects the collective recognition of an organization in the organizational field. When making economic choices, stakeholders are likely to favor prominent organizations because prominence reflects the "majority vote", which can provide some assurance to buyers, as well as others evaluating the buyers' choices (Kuran & Sunstein, 1999; Rindova & Fombrun, 1999). For example, buyers may be willing to pay premium prices for the products of prominent organizations because acquiring such products can enhance their image with their own customers (Podolny, 1994). In addition, prominence may lead to a higher price premium by simply increasing the number of people bidding for the goods produced by an organization. Therefore, we hypothesize that: Hypothesis 8: The greater the prominence of an organization, the higher the price premium associated with its products.

#### **METHOD**

# Sample and Data Collection

The sample used for this study includes 107 U.S. business schools rated by 1,600 corporate recruiters who completed an on-line survey about business school reputations administered by Harris Interactive in 2000. The sample of schools was generated from the 344 schools accredited as of March 2000 by the International Association for Management Education. Small schools (those with less than 50 full-time MBA graduates in their class of 2000) were eliminated because such organizations have been shown to have different goals and resource constraints (Aldrich, 2000). This produced an initial sample of 188 schools, which were asked to provide names and contact information of corporate recruiters that have recruited from them. Recruiters were contacted by email and regular mail and invited to participate in the on-line survey. On the survey recruiters were asked to rate up to three MBA programs and to select schools that they had either recruited from before, or had some interaction with, or had some degree of familiarity with. Of the recruiters who completed the survey, more than 80% had hired students from and/or had contacts with the schools they rated in the previous two years, suggesting that they had sufficient opportunities to develop perceptions about these schools (Clark & Montgomery, 1998). Although business schools provided the contact information and/or contacted the recruiters directly, they had no control over which schools a recruiter nominated. The "nomination" procedure produced recruiter ratings for 107 business schools, which constituted the final sample for this study.

#### Dependant Variables

*Measures of reputation*. One shortcoming of extant reputation research is that organizational reputation is seldom measured directly. It is common for researchers to infer the unobservable effects of reputation by examining direct relationships between observable organizational attributes or third-party actions and organizational performance outcomes (e.g., Rao, 1994; Shamsie, 2003; Stuart, 2000). In order to understand how reputation creates value, however,

we need to examine the specific effects of the different aspects of stakeholder perceptions that make up reputation. In this study we overcome limitations of previous research by developing direct measures of the two dimensions of organizational reputation.

Prominence. Prominence was measured by the number of recruiters that nominated a given school. Recall that recruiters were invited to select three schools they would like to rate. We reasoned that since corporate recruiters are bounded by both cognitive and time constraints (Fiske & Taylor, 1991), they were likely to choose to rate those schools that were most prominent in their minds. Regardless of the individual reasons that led each recruiter to select a particular school, across the 1, 600 recruiters who completed the survey, this nomination procedure captures the relative prominence of business schools among corporate recruiters as a stakeholder group. The prominence measure derived through this nomination procedure is the only measure of reputation that we are aware of that captures the collective-level properties of reputation (Rao, 1994) and allows us to distinguish between prominence and favorable evaluations of quality as two distinct dimensions.

Perceived quality. Perceived quality was measured on a scale of 1 to 10 as the average of recruiters' ratings of a school on 13 attributes related to student quality (see Appendix A for a list of the attributes). The Cronbach's Alpha for the measure of perceived quality was .98. Because the unit of analysis for this study is the organization, the perceived quality score for each school was calculated as the average of the individual scores of all recruiters who rated that school. Ninety two schools were ranked by more than one recruiter. Across the schools with multiple raters (two or more) the mean inter-rater agreement (rwg) for the 13 attribute items was .95, suggesting high level of similarity in recruiters' perceptions of each school's quality.

*Price premium.* Price premium was measured by the mean starting base salary, not including bonuses or other benefits, received by each school's MBA graduates in 2000, as reported

in U.S. News & World Report (2001). This is an objective measure of recruiters' economic choices vis-à-vis different schools. This measure was adjusted for cost-of-living differences across geographic regions by multiplying each school's mean starting base salary by the U.S. Department of Commerce Census Bureau's (2000) cost-of-living index score for that school's geographic region.

# **Independent Variables**

Quality of inputs. In the educational process of an MBA program incoming students constitute the major input resource (D'Aveni, 1996). Schools apply different admission criteria, which lead to differences in the quality of inputs for their educational processes (D'Aveni, 1996). One of the main admission criteria is applicants' scores on standardized scholastic aptitude tests, such as the GMAT. Therefore, we operationalize quality of inputs as the average GMAT scores of students entering MBA programs in 1998 and 1999, as reported in U.S. News & World Report.

Quality of productive assets. The main productive asset employed in the educational process of a business school is its faculty (Trieschmann et al., 2000). Faculty embody the knowledge that is transferred to students in the educational process (Feldman, 1987). Therefore, the more knowledgeable faculty are, the greater their value as a productive asset in the educational process. Job experience has been identified as an important source of knowledge acquisition and development of embedded relationship and routines that that enable individuals to better perform job tasks, such as teaching (Quinones, Ford, & Teachout, 1995; Tierney & Farmer, 2002). Thus, although there are many different facets to faculty quality, it is logical to expect that academic experience will be positively related to the ability of faculty to convey the knowledge they have acquired to students. Consistent with this logic, we measured the quality of productive assets as the average years of academic experience possessed by a business school's faculty. To compute this

<sup>&</sup>lt;sup>1</sup> Prior research has considered *U.S. News & World Report* a reliable source of data about U.S. business schools, since the data they report are approved by the Association to Advance Collegiate Schools of Business (AACSB) (Trieschmann, Dennis, Northcraft & Niemi, 2000).

measure for each school, we generated a dataset of all full-time faculty employed in the 107 business schools in our sample, resulting in a dataset of over 9000 faculty members. The average level of academic experience for each school was calculated as the average of the years prior to 2000 since the full-time faculty employed by a business school had received their Ph.D. degrees.

Media rankings. The media ranking of each business school was measured as its rank in the most recent business school rankings published by Business Week (1998) prior to the completion of the survey by the recruiters. We used the rankings published by Business Week because they are the oldest and the best-established rankings in the organizational field of U.S. business schools and have been used in multiple prior studies (D'Aveni, 1996; Elsbach & Kramer, 1996; Martins, 1998; Segev et al., 1999). In addition, the Business Week rankings were more appropriate for our study then rankings published in other media sources, such as the Financial Times or U. S. News&World Report, because the latter include observable organizational attributes and economic outcomes (such as starting salary).<sup>2</sup> For the ranked schools we used their actual rank-order (e.g., 1st, 2nd, 3rd), and we assigned a constant to the non-ranked schools.

Expert intermediary certifications. Publications in premier scholarly journals are certifications that the research of faculty satisfies the institutional norms associated with modern science (Merton, 1972; Clemens et al., 1995). Faculty publications in premier journals were measured as a sum of the total number of publications of the faculty of a business school over the five-year period (1996-2000) prior to the completion of the survey by corporate recruiters. We capture faculty publications in two forms: (1) research publications in premier research journals, and (2) publications in well-established practitioner journals (see Appendix B for a full list of these journals). In selecting relevant journals, we relied on the list used by Financial Times (2001) and agreed upon by

<sup>&</sup>lt;sup>2</sup> In 2000 Business Week introduced as a component of their rankings a measure of "intellectual capital" based on faculty publications (Business Week, 2000: 89). However, this component was not a part of the rankings criteria during the time period of our study.

AACSB member schools. <sup>3</sup> The number of faculty publications in research and practitioner journals for each school was calculated by adding all the publications authored by the faculty members at a particular school. All publication data was collected for a five-year time period to ensure that the measure captures this organizational attribute over time and to allow for its hypothesized impact to take hold.

Affiliation with high-status actors. In the context of business schools, the prestige of faculty's Ph. D. degrees provides the schools with an indirect affiliation with the prestigious university where the faculty received their degree. Obtaining a degree from a prestigious academic institution enables faculty to accumulate scholastic, social and symbolic capital, which provide them with better professional opportunities (Keith & Babchuk, 1998; Long, Bowers, Barnett & White, 1998). The symbolic capital associated with degree prestige can also transfer to the business school employing the faculty (Zuckerman, 1988). To compute this measure for each school we used the Gourman Report (Gourman, 1997) to assign a degree-prestige score to each faculty employed by a given school and then created a school score by averaging the individual faculty scores. This procedure produced a single continuous score ranging from 0 to 5 for each school. The Gourman Report is well established as a measure of prestige of academic institutions in past research (Cable & Murray, 1999; Williamson & Cable, 2003), and is considered the only numerical rating of the prestige of virtually every university in the United States.

#### ANALYSIS AND RESULTS

#### **Analysis**

To test simultaneously the proposed relationships in our model we estimated a path model using Measured Variable Path Analysis in LISREL 8.53 (Jöreskog & Sörboom, 2001), which allows

<sup>&</sup>lt;sup>3</sup> Based on feedback from colleagues with expertise in human resources we added *Personnel Psychology* to the original list of journals developed by Financial Times and removed Human Resource Management and International Journal of Human Resource Development.

researchers to simultaneously examine a series of dependence relationships, while simultaneously analyzing multiple dependent variables (Shook, Ketchen, Hult & Kacmar, 2004), such as the relationships hypothesized in our model. LISREL provides both an overall assessment of the fit of a hypothesized path model to the data, and tests of individual hypotheses. This statistical technique also allows us to compare the hypothesized model to other plausible models by comparing the fit of the alternative models to that of the hypothesized model.

The hypothesized model depicted in Figure 1 consisted of 5 exogenous variables and 3 endogenous variables. Each variable was modeled as a single indicator and assumed to contain no measurement error with the exception of the perceived quality variable, which was measured using a Likert-type survey instrument allowing for the calculation of a reliability coefficient. Following the procedures recommend by James, Mulaik and Brett (1982), we controlled for measurement error in perceived quality by setting the variable's error term equal to its variance multiplied by one minus its Cronbach alpha score (.98) and the variable's lambda matrix value was set equal to the square root of its Cronbach alpha score. Prior research suggests that faculty degree prestige, publications in premier journals, media rankings, and GMAT scores are likely to be intercorrelated (D'Aveni, 1996; Trieschmann et al., 2000). Thus, these exogenous variables were allowed to covary in the estimation of the model.

#### Results

The means, standard deviations, and correlations among all variables are presented in Table 2. The correlations in Table 2 were computed by modeling a fully-saturated model in LISREL. Before discussing test of the specific hypotheses from the structural equation model, it is important to evaluate the overall fit of the theoretical model to the data. We assessed the overall fit of the model to the data using the chi-square statistic, the goodness-of-fit index (GFI), the normed fit index (NFI), the comparative fit index (CFI), and the incremental fit index (IFI). The chi-square

statistic is well-known to be oversensitive to sample size and be significant (suggesting that a model does not adequately fit the data) even when the differences between observed and model-implied covariances are slight (Kline, 1998). To reduce the sensitivity of the chi-square statistic to sample size researchers recommend using the rule " $\chi^2$ /df lower than 3" to decide the acceptability of the chi-square value (Kline, 1998). The chi-square for the hypothesized model was  $\chi^2$  (14, N = 107) = 30.36, p < .05. Chi-square divided by the degrees of freedom was 2.17 suggesting adequate fit of the model to the data. GFI, NFI, CFI, and IFI scores at or above .90 indicate acceptable fit (Medsker, Williams & Holahan, 1994). The GFI was .93, the NFI was .95, the CFI was .98, and the IFI was .98, supporting the conclusion that the hypothesized model adequately fits the data.

# Insert Table 2 and Figure 2 about here

Figure 2 contains the maximum-likelihood parameter estimates for the main predictors, significance levels, and R-square's for the hypothesized model.<sup>4</sup> First, we discuss the results for the hypothesized predictors of business school reputations. In terms of the effects of resource signals on perceived quality, consistent with Hypothesis 1, student GMAT scores were statistically significant positive predictors of perceived quality ( $\gamma = .33$ ). Hypothesis 2 predicted that the average years of academic experience of a business school's faculty would have a positive relationship with perceived quality. However, faculty experience was not significantly related to perceived quality. In terms of the effects of institutional intermediaries on prominence, consistent with Hypothesis 3, media rankings significantly predicted prominence ( $\gamma = -.51$ ). Because we used the actual ranks in our data set (e.g., 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>), the negative coefficient should be interpreted to mean that business schools that had higher ranks were more prominent than business schools that had lower ranks. Consistent with Hypothesis 4 faculty publications in premier journals were significantly positively

<sup>&</sup>lt;sup>4</sup> The R-square's presented in the model are equivalent to one minus the disturbance for each endogenous variable and reflect the proportion of explained variance (Kline, 1998).

related to prominence ( $\gamma = .17$ ). Finally, consistent with Hypothesis 5 faculty degree prestige was significantly positively related to prominence ( $\gamma = .18$ ).

Next, we present the results for the hypothesized effects of perceived quality on prominence and of the two reputation dimensions on price premium. The path from perceived quality to prominence was positive and significant ( $\beta = .13$ ), supporting Hypothesis 6. Perceived quality was not significantly related to price premium, thus Hypothesis 7 was not supported. Last, consistent with Hypothesis 8, prominence had a significant positive relationship with price premium ( $\beta = .59$ ).

Given that the goal of our study is to examine the system of relationships between the antecedents, dimensions and consequences of business schools' reputations, it is informative to examine the total (i.e. direct + indirect) effects of the hypothesized predictors on perceived quality, prominence and price premium. Prominence had the largest significant effect on price premium (.59). Media rankings had the largest statistically significant effect on prominence (-.51), as well as a significant total effect on price premium (-.30). Publications in premier journals had a significant total effect on prominence (.17), but no significant total effect on price premium. Faculty degree prestige had a statistically significant total effect on prominence (.18) and a statistically significant total effect on price premium (.11). Perceived quality did not have a significant total effect on price premium, although it did have a significant direct effect on prominence. These findings suggest that in terms of MBA salaries business schools may benefit more from the overall level of stakeholder recognition of the school than from recruiters' direct perceptions of student quality, keeping in mind that perceived quality and recognition are positively related. Neither of the resource signals we examined (GMAT or faculty experience) had significant total effects on price premium; however, GMAT scores had a statistically significant effect on perceived quality (.33) suggesting that recruiters perceptions of quality are influenced by the quality of the students schools admit.

#### Alternative Model Evaluation

Both Medsker et al. (1994) and Hayduk (1987) recommend evaluating a hypothesized model relative to plausible alternative models. In the present study, four alternative models appear to present logical alternatives to the hypothesized system of relationships and should be tested. First, we predicted that organizational resource signals would influence perceived quality and that third-party certifications and affiliation with high-status actors would influence prominence. However, it is conceivable that organizational signals and third-party factors may influence both perceived quality and prominence (Benjamin & Podolny, 1999). We tested this alternative model 1 by adding links from GMAT and faculty experience to prominence, and adding links from media rankings, faculty publications, and faculty degree prestige to perceived quality. Second, in the hypothesized model organizational and third-party effects are predicted to influence price premium only indirectly, through their effects on the two dimensions of reputation. However, reputation may only partially mediate these relationships, such that a firm's resource signals and institutional factors may influence price premium directly. We tested this alternative model 2 by adding direct links from all five exogenous variables to price premium.

Third, in the hypothesized model we predicted that perceived quality would influence prominence. However, the sociological view of reputation suggests that it is also possible that high-status actors and institutional intermediaries "set the tone" of the evaluations that other stakeholders make (Rindova & Fombrun, 1999). Once these collective processes are set in motion, more prominent organizations may be perceived as having higher quality (Kuran & Sunstein, 1999). We tested this alternative model 3 by reversing the link between perceived quality and prominence so that prominence predicted perceived quality.

Fourth, in the context of U.S. business schools arguments could be made that access to high-quality resources and influential third-parties, such as the media and the premier journals, is influenced by the prestige of the university with which a business school is affiliated (Keith &

Babchuk, 1998). Therefore, the prestige of the university a business school is a part of may be a contextual factor that affects both organizational and third-party choices and indirectly influences the reputation and price premiums a business school enjoys (D'Aveni, 1996). To test this alternative model 4, we added university prestige (as measured by the Gourman score for the university, of which a business school is a part) as a variable directly influencing GMAT scores, faculty academic experience, media rankings, publications in premier journals, and faculty degree prestige. All other

aspects of the hypothesized model remained unchanged.

We used the criteria suggested by James et al. (1982) to compare alternative models 1 and 2 to the hypothesized model because they are nested models. Following this procedure, a significant reduction in chi-square suggests an improvement in the fit to the data. In terms of alternative model 1, chi-square difference tests revealed that the decrease in chi-square from the hypothesized model to alternative model 1 was not significant ( $\Delta \chi^2(5) = 10.91, p > .05$ ). Thus, the alternative model 1 is less parsimonious because it adds more parameters to be estimated and does not fit the data significantly better. Chi-square difference tests between the second alternative model and the hypothesized model also revealed an insignificant decrease in chi-square ( $\Delta \chi^2(5) = 10.93, p > .05$ ), suggesting that the fit of alternative model 2 to the data was not better than the fit of the hypothesized model.

Alternative models 3 and 4 are not nested in our hypothesized model. Thus, consistent with the recommendations of Kline (1998), to determine whether these alternative models fit the data better than the hypothesized model we compared the Akaike Information Criterion (AIC) scores of each alternative model to the AIC score of the hypothesized model. Kline (1998) suggests that given two non-nested models, the one with the lowest AIC score represents the best fitting model. The AIC scores for alternative models 3 and 4 (78.83 and 260.76 respectively) were both higher than the

AIC of the hypothesized model (75.69). Based on these findings we concluded that the hypothesized model was superior to the alternative models we examined.

#### **DISCUSSION AND CONCLUSIONS**

In this paper we examine two questions that are seldom addressed by reputation researchers, but are at the heart of the reputation construct – what factors shape stakeholder perceptions of organizations, and how do different aspects of stakeholder perceptions influence the economic payoffs to organizations. We address these questions by proposing that organizational reputations consist of two dimensions – perceived quality and prominence – and examining their distinct antecedents and consequences.

Our study makes several important contributions to reputation research. By positing that organizational reputations can be viewed as a two-dimensional construct we integrate previously disparate streams of research rooted in the economics and the institutional perspectives and contribute to reputation research and management practice a model that identifies the antecedents of these two distinct dimensions. Our model also significantly advances current understanding of the relationship between organizational reputation and economic pay-offs, which has been the most central concern of reputation research. Because past research has seldom measured reputation itself, and has instead studied the direct relationships between the observable characteristics of firms and price premiums (e.g., Rao, 1994; Shamise, 2003; Stuart, 2000), it cannot tell us if observable organizational and institutional factors affect price premium directly, or through reputation, or both (e.g., Stuart, 2000; Podolny & Stuart, 1995). By measuring reputation directly and by distinguishing between its two dimensions, in this study we are able to assess the contributions that each -- perceived quality and prominence -- make to the economic pay-offs of an organization. In the context of our study, while perceived quality had no significant relationship with price premium, prominence had the largest total effect on price premium. These results suggest that, viewed as an

asset stock, the economic value of organizational reputation is strongly influenced by the extent to which the organization is widely recognized in the organizational field.

Our results also provide empirical support for the theoretical argument that the prominence dimension of reputation depend on support and endorsement by influential third parties, such as institutional intermediaries and high-status actors. We extend previous research by showing the mechanism through the media impact the economic outcomes of firms. More specifically, we find that media indirectly affect price premium by enhancing organizational prominence. In addition, we expands current understanding of the role of expert intermediaries in markets by showing that certifications of a business school faculty's academic merit, reflected in their publications in premier scholarly journals, had a significant effect on a business school's prominence. These findings suggest that receiving recognition from experts in the field may be an important factor contributing to organizational prominence. In addition, our finding that the prestige of faculty's academic degrees had both a significant direct effect on prominence and a significant total effect on price premium suggests that hiring individuals with high levels of symbolic capital, including but not limited to educational degree prestige, may enable an organization to increase both its prominence and economic pay-offs.

In our study, perceived quality is predicted by quality of inputs (student GMAT scores), but not by quality of productive assets (faculty average academic experience). This difference in effects may occur because different types of resources may have different signaling value to customers, with the quality of inputs having greater signaling value because in the production process inputs transfer their entire value to the final product, while productive assets do not. It also may be due to the fact that quality of productive assets, especially knowledge assets, is complex and hard to observe, therefore reducing its value as a signal that stakeholders can readily use to form expectations about quality. Future research should seek to examine more specifically how the attributes of organizational resources affect their value as signals of quality.

Overall, our findings provide compelling evidence that perceived quality and prominence are predicted by different information signals. This observation suggests the need for future research to examine in greater detail the cognitive processes that underlie the two dimensions of organizational reputation. It is conceivable that judgments of quality are based on specific, relatively detailed observations of signals about firm attributes, while prominence is based on general impressions about the organization that develop largely through social influence (Rao et al., 2000). Our results also provide evidence that positive evaluations of quality increase prominence, and therefore, may serve as inputs in the collective processes through which prominence develops. Therefore, future research should pursue a more fine-grained examination of the different processes of impression formation among stakeholders and how they shape the two dimensions of organizational reputation.

Several limitations of our study also provide excellent opportunities for future research. First, this study focuses on a single type of reputation – an organization's reputation with its customers. Since organizations may have multiple reputations with different stakeholder groups (Dollinger et al., 1997), future research should examine how the two dimensions of reputation we propose affect the economic pay-offs associated with different types of reputation, such as reputation with employees or reputation with suppliers. Further, the question of the extent to which an organization's reputation indeed varies along the two dimensions across stakeholder groups is of significant theoretical and practical interest. It is possible that prominence is relatively consistent across different stakeholder groups, whereas perceived quality varies with the varying performance expectations of different stakeholders. Making progress in addressing this question may help reputation research resolve one of its long-standing debates about whether a firm has one reputation or many (Fombrun, 1996; D'Aveni, 1996).

Second, future research should examine the extent to which the economic consequences of the two dimensions depend on the institutional context that surrounds an industry. The organizational filed of business schools, which provided the empirical context for the test of our

model, may have particularly strong institutional forces, since premier scholarly journals are strongly institutionalized forms for certifying scholarly contribution (Zuckerman, 1988) and media rankings of business schools have a high degree of legitimacy with various stakeholders. In such contexts, the effects of prominence on economic pay-offs may be stronger than in contexts where institutional intermediaries are less well established or credible. Further, it will be important to examine the extent to which our findings hold in other settings, where rankings are common and pervasive, but product quality is not so difficult for stakeholders to evaluate. In doing so, researchers will be better able to understand the extent to which certification by institutional intermediaries and affiliations with high-status actors serve as substitutes for direct evaluations of quality by enabling stakeholders to rely on "ready-made" interpretations. Progress in that direction has significant implications for understanding how firms should invest in building their reputations and the extent to which they benefit from investing in quality versus investing in media "hype" and prestigious affiliations.

Third, our study focused on business schools with full-time MBA programs with more than fifty students. The choice of this cut-off was based on organizational research that has argued that small and large organizations represent different organizational forms that differ in the problems they deal with and the resource constraints they face (Aldrich, 2000). In markets with numerous competitors, some small- and mid-size firms may remain unnoticed by large groups of stakeholders because their lack of prominence places them outside the consideration set (Nedungadi, 1990), from which stakeholders ultimately chose to buy. Thus, future research can extend this study by examining the extent to which our model applies to small- and mid-size firms and how such firms can actually bolster their reputations.

Finally, the uniqueness of our data set also poses a limitation to the study in terms of its ability to address how the relationships among the antecedents, dimensions, and consequences of reputation evolve over time. Since our study is based on the first large-scale survey of corporate recruiters with regard to their perceptions of business schools (*Wall Street Journal*, 2001), we cannot

examine how the reputations of business schools with this group change over time. However, future research can endeavor to examine the impact of organizational versus institutional factors on the sustainability of the two dimensions of reputation and their impact on economic outcomes.

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#### **APPENDICES**

# A. Attributes Used in the "Perceived Quality" Measure

Recruiters rated business schools on the following attributes of their graduates, on a scale from 1 to 10, where 1 = "poor performance, does not meet your needs", and 10 = "excellent performance, meets your needs very well."

- 1. Communication and interpersonal skills
- 2. Original and visionary thinking
- 3. Leadership potential
- 4. Ability to work well within a team
- 5. Analytical and problem-solving skills
- 6. Strong international perspective
- 7. Strategic thinking
- 8. Ability to drive results
- 9. Specific functional expertise
- 10. Adaptability, including the ability to deal with ambiguity
- 11. Fit with the corporate culture
- 12. Entrepreneurial skills
- 13. General management point of view

# B. Journals Used in the "Faculty Publications" Measure by Area

- Accounting Journal of Accounting and Economics, Journal of Accounting Research, The Accounting Review
- Economics Econometrica, Journal of Political Economy, The American Economic Review
- Entrepreneurship Entrepreneurship Theory and Practice, Journal of Business Venturing, Journal of Small Business Management
- Finance Journal of Finance, Journal of Financial Economics, Review of Financial Studies
- *Management* Academy of Management Journal, Academy of Management Review, Administrative Science Quarterly, Management Science, Strategic Management Journal
- Organizational Behavior and Human Resources Journal of Applied Psychology, Organizational Behavior and Human Decision Processes, Personnel Psychology
- International Business Journal of International Business Studies, Management International Review
- Marketing Journal of Consumer Research, Journal of Marketing, Journal of Marketing Research
- Operations and Information Systems Information Systems Research, Journal of Operations Management, MIS Quarterly, Operations Research
- Insurance and Real Estate Journal of Risk and Insurance, Real Estate Economics
- Practitioner Journals Academy of Management Executive, California Management Review, Harvard Business Review, Long Range Planning, Sloan Management Review

TABLE 1 **Definitions of the Concept of Reputation** 

Research area	Definitions of Reputation Used	Type of Perceptions Equated with the Construct	Example of Studies			
Managem ent	Economics/ Game-theory perspective					
	An attribute or a set of attributes ascribed to a firm, inferred from the firm's past actions	Assessments of a relevant attribute(s)	Weigelt & Camerer (1988); Hayward & Boeker (1998); Stuart (2000)			
	An observer's impression of the actor's disposition to behave in a certain manner	Assessments of a relevant attribute(s)	Clark & Montgomery (1998)			
	Institutional perspective					
	Publics' cumulative judgments of firms over time; a global perception	Collective knowledge and recognition	Fombrun & Shanley (1990); Roberts & Dowling (2002)			
	Stakeholders' knowledge and emotional reactions – affect, esteem – towards the firm	Collective knowledge and recognition	Hall (1992); Fombrun (1996); Deephouse (2000)			
	Marketing perspective					
	The level of awareness that the firm has been able to develop for itself and for its brands; fame	Collective knowledge and recognition	Hall (1992); Shamsie (2003)			
Econo- mics	Consumers' expectations and beliefs about a firm's products quality	Assessments of a relevant attribute(s)	Shapiro (1982, 1983); Allen (1984)			
	A rival's perceptions about the likelihood of an incumbent to behave in certain way	Assessments of a relevant attribute(s)	Kreps & Wilson (1982); Milgrom & Roberts (1982)			
Socio-logy	A prevailing collective agreement about an actors' attributes or achievement based on what the relevant public "knows" about the actor	Collective knowledge and recognition	Lang & Lang (1988); Camic (1992)			
	A characteristic or an attribute ascribed to an actor, based on his past actions	Assessments of a relevant attribute(s)	Raub & Weesie (1990); Kollock (1994)			
Marke- ting	The estimation of the consistency over time of an attribute of an entity	Assessments of a relevant attribute(s)	Herbig & Milewicz (1995)			
0	Consumers' impressions of a company that is producing and selling a given product or brand	Collective knowledge and recognition	Goldberg & Hartwick (1990)			
	Perceptions and beliefs about the firm based on previous interactions	Assessments of a relevant attribute(s)	Campbell (1999); Prabhu & Stewart (2001)			
	Public esteem or high regard judged by others	Collective knowledge and recognition	Weiss, Anderson & MacInnis (1999)			

TABLE 2

Correlations and Descriptive Statistics

	Variable	Mean	S.D.	1	2	3	4	5	6	7
1. Pr	rice Premium	61449.29	15827.66							
2. Pe	erceived Quality	7.70	1.13	.22*						
3. Pr	rominence	21.35	24.97	.60*	.32*					
4. G	MAT Scores	614.76	46.16	.50*	.33*	.70*				
5. Fa	aculty Experience	16.34	2.35	17	07	17	.20*			
6. M	Iedia Rankings	49.02	20.29	38*	21*	79*	67*	.04		
	ublications in Premier ournals	62.81	62.50	.39*	.17	.71*	.71*	03	76*	
1. Fa	aculty Degree Prestige	4.34	0.29	.49*	.31*	.68*	.73*	04	66*	.69*

N = 107

<sup>\*</sup> p<.05

FIGURE 1 Antecedents and Consequences of Organizational Reputation

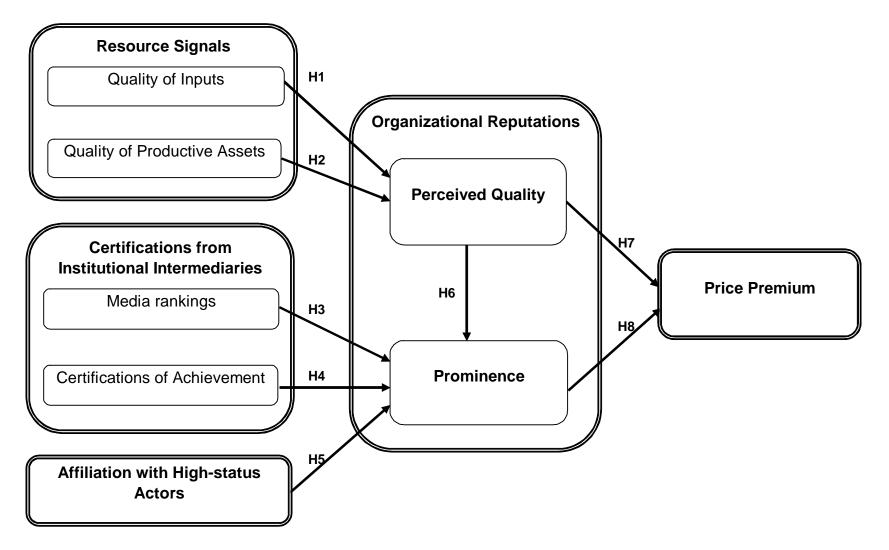
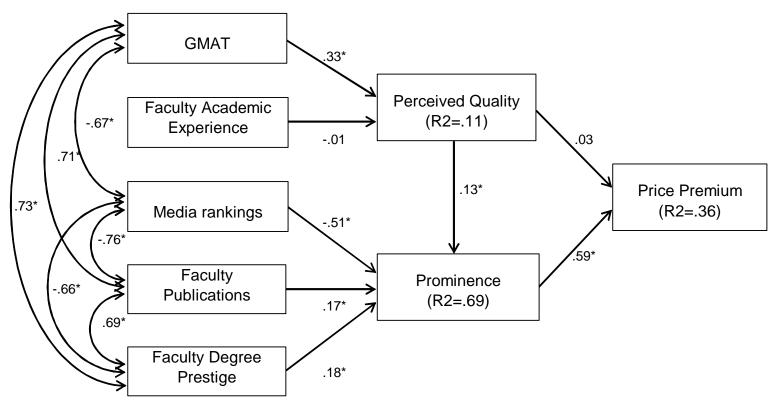


FIGURE 2 Path Coefficients for the Hypothesized Model



<sup>\*</sup> p < .05

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