Reputation in higher education: A fuzzy set analysis of resource configurations ☆

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A R T I C L E I N F O

A B S T R A C T

Reputation is critical for institutions wishing to attract and retain students in today's competitive higher education setting. Drawing on the resource based view and configuration theory, this research proposes that Higher Education Institutions (HEIs) need to understand not only the impact of independent resources but of resource configurations when seeking to achieve a strong, positive reputation. Utilizing fuzzy set qualitative comparative analysis (fsQCA), the paper provides insight into different configurations of resources that HEIs can utilize to build their reputation within their domestic and international student cohorts. Specifically, the results of a survey of current students at an Australian university distinguish nine diverse resource configurations leading to HEI reputation for domestic students. Reputation in the international cohort, on the other hand, is associated with six configurations, centered around learning support and campus life. Theoretical and managerial implications for HEIs are provided leading to directions for future research.

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1. Introduction

Higher Education Institutions (HEIs hereafter) operate in a highly competitive landscape (Bagley & Portnoi, 2014), fueled by globalization and the deregulation of higher education across many countries (Hemsley-Brown & Oplatka, 2006). More than 4.5 million students studied outside of their country of citizenship in 2012 (OECD, 2014) with that figure expected to nearly double by 2025. Moreover, with the number and quality of HEIs growing in Asia and South America, for instance, the competition for talent and fee-paying students among established institutions will further increase (Gibney, 2013). This competitive environment incites HEIs to develop, communicate, and strengthen their brand (Hemsley-Brown & Goonawardana, 2007), making reputation a key concern of HEI senior management to attract globally mobile students.

Given that the quality of education is difficult to evaluate before being experienced (Suomi, Kuoppakangas, Hytti, Hampden-Turner, & Kangaslahti, 2014), reputation serves as a critical surrogate for quality, guiding university selection and evaluation (Hemsley-Brown, 2012; Munisamy, Jafaar, & Nagaraj, 2014). While research on reputation is relatively advanced in the marketing literature (Ali, Lynch, Melewar, & Jin, 2014), studies on reputation in the higher education context are scarce (Watkins & Gonzenbach, 2013). In particular, research is yet to determine how HEIs develop a strong, positive reputation in the minds of their core stakeholder group (i.e. students) based on internal resource conditions.

Drawing on resource-based theory (Kozlenkova, Samaha, & Palmatier, 2014) and configuration theory (Drazin & Van de Ven, 1985), this study proposes that the key to achieving a positive reputation depends on specific combinations of HEI resources and their complementarity or fit. More specifically, while extant literature provides important insight into individual antecedents of HEI reputation (i.e. Volkwein & Sweitzer, 2006), the complementary impact of constellations of resources has been neglected. Hence, current studies are limited in their capability to explain the effectiveness of different resource combinations to positively shape an HEI's reputation. This leads to the following research question:

Research Question 1: What are the most effective configurations of resources that lead to HEI reputation among students?

Reputation is the result of a complex combination of interdependent antecedents, meaning that one resource can be leveraged by the presence of other resources to generate "causal ambiguity, rareness, and intangibility", that is difficult to imitate (Boyd, Bergh and Ketchen, 2010; p. 603). This study advances extant research by identifying specific HEI resource configurations that contribute to reputation in the student body, consistent with a configuration theory perspective. Importantly, this paper illustrates that reputation is influenced by the students' interconnected academic, relational and physical experiences (Sajtos, Kreis, & Brodie, 2015), which aggregate to differential reputation effects. The findings offer a pragmatic way for managers to enhance reputation among students by nurturing complementary resources,

while at the same time allowing them to leverage existing strengths and advance the current state of theorizing.

Moreover, this study addresses the gap on how different stakeholder groups perceive reputation (Cable & Graham, 2000); and specifically how the drivers of HEI reputation potentially differ across international and domestic student cohorts. International students typically do not have the same proximity to or familiarity with the brand and its constituents prior to arriving at the institution to study. Hence, research suggests that it may be more difficult for international students to assess specific intangible HEI resources, such as core learning environments (Kettle, 2011). Therefore, international student cohorts are likely to look to tangible cues in their learning experience to assist them in assessing the credence quality of the institution. The potentially different perspectives between domestic and international cohorts thus lead to the following research question:

> Research Question 2: Do the configurations of resources that lead to HEI reputation differ among international and domestic students, and if so, how do these configurations differ?

In light of the above research questions, this study employs fuzzy set qualitative comparative analysis (fsQCA) to provide insight into different configurations of resources HEIs can use to achieve a strong reputation among their students. This method draws on a set theoretic approach that uses Boolean algebra to study configurations of causal conditions related to the outcome. In contrast with net-effect analyses (e.g. SEM, multiple regression, ANOVA), which examine direct and indirect effects of individual independent variables on outcome variables, fsQCA identifies combinations of causal conditions that can lead to the outcome of interest in the real world, maintaining the integrity of individual cases in analyzing the data (Chang, Tseng and Woodside, 2013; Fiss, 2011). Hence, fsQCA can provide practical insight about how to utilize different combinations of resources to build reputation in higher education.

The remainder of this paper is structured as follows. A review of the literature on reputation, with a particular focus on the context of higher education, leads to the development of two important propositions. A justification for the method follows, leading to a discussion of the results, including a separate analysis of resource configurations determining high HEI reputation for domestic and international student groups. The paper concludes with theoretical and managerial implications as well as an outline of future research directions.

1.1. Reputation in higher education

Much attention has been devoted to the concept of reputation, given its importance both in personal and organizational contexts (Ali et al., 2014). While researchers have highlighted the inconsistency in the conceptualization of corporate reputation in the literature (Fombrun, 2012), clear common grounds exist. For a detailed review of these definitions and their conceptual underpinnings, please refer to comprehensive reviews conducted by Walker (2010) and Lange, Lee, and Dai (2011). For the purpose of this paper, reputation refers to a "relatively stable, issue specific aggregate perceptual representation of a company's past actions and future prospects against some standard" (Walker, 2010, p. 370) and should be understood as conceptually different to corporate image. While closely related, image is "an internal picture projected to an external audience" (Walker, 2010, p. 366) and is thus organization-driven. Hence, corporate image refers to what an organization seeks to stand for (i.e. desired image) or what it believes it stands for (i.e. construed image) (Brown, Dacin, Pratt, & Whetten, 2006). Reputation, on the other hand reflects actual stakeholder perceptions (Varadarajan, DeFanti, & Busch, 2006) that are developed over time and thus are more durable, stable and stakeholder-driven than image (Walker, 2010).

Reputation is investigated in this study, as it has long been acknowledged as leading to increased organizational performance (Walker, 2010), loyalty (Bartikowski, Walsh, & Beatty, 2011) and profitability

(Roberts & Dowling, 2002). In the area of education, reputation acts as a key contributor to perceived quality (Veloutsou & Moutinho, 2009), reduces uncertainty for stakeholders (Rindova, Williamson, Petkova, & Sever, 2005) and guides evaluations of key stakeholders, such as students (Hemsley-Brown, 2012). Despite its importance, reputation management remains challenging for HEIs. This is primarily due to the large number of stakeholders and its organizational complexity comprising distinct schools, centers and units of highly independent academics (Suomi et al., 2014) and the limited empirical investigations of what determines HEI reputation (Volkwein & Sweitzer, 2006). Hence, this research seeks to build on extant literature, contributing a unique conceptualization and empirical validation of resource configurations that may lead to high levels of HEI reputation.

1.2. The complementarity of HEI resources

As HEIs aim to implement effective strategies to build reputation, decision makers need to factor in institutional resources and the complementarities of these. Complementarity occurs when firms combine different resources in unique ways to enhance the overall value of the resources (Ennen & Richter, 2010). The strategy literature highlights the potential of "configurations" of resources in this regard and their strategic fit, epitomized in configuration theory (Drazin & Van de Ven, 1985). The latter takes a holistic system perspective and proposes that organizations constitute sets of interrelated resources that should internally and externally align for better outcomes. Accordingly, sets of resources, activities and their relationships represent different constellations that, for example, can have a complementary fit or a conflicting misfit, which in either case shapes organizational effectiveness, for example in terms of external outcomes such as reputation.

By applying configuration logic, an HEI includes constellations of resources that contribute to the overall configuration of the institution and its reputation. To improve both the student experience and the resultant reputation of the HEI, configuration logic suggests that university-related resources should be complementary and thereby increase strategic fit. Based on the concept of fit or complementarity, this paper contends that the marginal benefit of each resource increases in the presence of respective other resources. For example, excellent lecturers complement excellent university facilities and their co-existence can consequently result in improved student experiences and contribute to the institutional reputation. Organizations therefore strive to build a self-reinforcing resource setup characterized by complementarity among its interacting elements. Hence, researchers need to help universities to better understand how to achieve a more coherent strategy for building reputation.

1.3. Resources in higher education

Factors stakeholders use to determine reputation include firm performance and risk, demographics, media visibility, and the networks and industry in which the firm operates (Ali et al., 2014; Lange et al., 2011), complemented managerially relevant characteristics such as price, personnel and facilities (Nguyen & LeBlanc, 2001). While limited empirical research examines determinants of antecedents specific to HEI reputation, research suggests the relevance of structural characteristics such as size, as well as faculty and student attributes, including professorial salaries and graduation rates (Volkwein & Sweitzer, 2006). As the drivers of corporate reputation are many and moderated by stakeholder group and country of study (Ali et al., 2014), the focus of this paper remains on one important stakeholder group, namely students, examining student-focused resources related to the core learning offering, the learning support environment and the extended university environment.

1.3.1. Resources related to the core learning offering
Human resources are critical for an HEI, as they play an important role in achieving organizational objectives, including teaching-related