

Hossein MahdaviMazdeh, Loren Falkenberg, Oleksiy Osiyevskyy, Jim Dewald
Haskayne School of Business, University of Calgary, Canada

WHEN TO INNOVATE AND WHEN TO MIMIC? RESPONDING TO DISRUPTIVE CHANGES IN HIGHER
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Universities are currently experiencing disruptions that require strategic planning from a market perspective (as opposed to traditional policy perspective) to ensure their survival in a competitive landscape. In business terms, these disruptive forces are changing the traditional customer (i.e., student) base, the competition (i.e., access to new forms of education), and the funding model (i.e., shift from public to private funds). Our research explores when it is appropriate for a university to be the first mover (innovate, be proactive) in response to a disruptive force, and when it is appropriate to mimic early innovators (imitate, be reactive), and what contextual factors determine the optimal strategy. More specifically, we examine the risks and value gained from being an innovator or imitator in different contexts. One element of a university's operating context that influences whether innovating or mimicking is a better choice is its current reputation or ranking (i.e., market prominence position). In this research we compare the approaches of two categories of universities, elite (ranked in the top 50 in the world¹), and mid-tier ones (ranked between 50 and 500 in the world).

This research explores how the intersection of institution status (e.g., elite versus mid-tier) and category of disruption influences the risks and values of being an early innovator or an early or delayed mimicker. We compare the responses of elite and mid-tier universities to the three categories of disruptive forces: demographic (i.e., increasingly aging and diverse population), technical advancements (i.e., tools for increasing access to university education), and economic (i.e., change in funding base from public to private), with changes in the relevant ranking systems as the dependent variable. We analyze the impact of these disruptive forces through management theories. Strategic management theories are becoming more relevant as the higher education industry shifts from a regulated model to a highly competitive model and institutions need to identify new ways of generating revenue and attracting clients (i.e., students). We develop a strategic planning framework based on resource dependence,

¹ Different rankings are used for case studies, detail is available in the full paper

institutional, and resource allocation management theories. We test the framework empirically in three complementary studies. The paper concludes by providing guidance on when to independently innovate and when to mimic other academic institutions.

DISRUPTIONS IN HIGHER EDUCATION

Demographic shifts. Western societies face declining domestic student prospects as the 'echo-boom' generation graduates from the higher education system. From 1991 to 2006, the gross enrollment ratio in North America and Western Europe rose from 52% to 70%, reaching a plateau that will be difficult to push further (Guruz, 2011). Many western universities increased enrollment through international students; which is a short term solution. We anticipate that these changing demographics will have minimal impact on the diversity of the student body in elite universities, as their reputation will continue to attract more applicants than positions available and they have always attracted international students. However, mid-tier universities will be impacted by the changing demographics and will be developing programs to attract a more diverse student population.

Technological change. In 1998, only 34% of US degree granting institutions were offering on-line courses, whereas a decade later that number had risen to 66% and included more than 12 million students (Guruz, 2011). In 1998 there were 1,230 degree and 340 certificate programs offered exclusively online, while in 2007 the number had grown to 7,418 degree and 3,822 certificate programs (Parsad and Lewis, 2009). We posit that elite universities will be the early innovators with technological changes, as their reputation is based on exploring applications of new technologies, and failure is part of the exploration. Although we propose that mid-tier universities will mimic the elite institutions, we propose that successful mid-tier universities will refine the mimicking to align with their operating context. For example, elite universities will develop online delivery platforms, while the more successful mid-range universities adapt the course content to meet their specific needs.

Funding shifts. Most elite universities are private with minimal dependence on public funding, in contrast, mid-tier universities in many western societies rely heavily on public sector funding. Observers point out that in 2009 the universities in developed world countries reached the point of all-time high public investment; after this the expenditures are destined to decline because of demographic changes and fiscal tightness (Global Higher Education Strategy Monitor, 2011). At the same time research costs are climbing ([Suddaby, Hardy, & Huy, 2011](#)). We propose that the elite universities will broaden their research programs in many different areas, while the most successful mid-range universities will focus on research niches appropriate to their context. This difference in orientations will occur because the elite

universities have sufficient internal (e.g., trust) funds to support a broad range of research programs, while mid-tier universities must increase the efficiency of their research programs, and find corporate or private sponsorship.

METHODOLOGY

In the empirical part of our study, the responses to each of the disruptions were explored through different methodologies and databases. The impact of demographic shifts on student populations was analyzed through longitudinal data from the National Centre for Education Statistics (through IPEDS) on student ethnicity, nationality and in-state or out-state enrollment, while for Canadian universities data from Statistics Canada was analyzed. The adoption and integration of technological advances was measured through a survey sent to university officials responsible for strategic planning (e.g., Provosts/Vice-Provosts) at elite and mid-tier institutions. The breadth of research programs was analyzed through the Insight Database by Thomson Reuters to measure diversity of publications and the growth rate in publications across research fields. All three studies used change in the ranking of a university over a ten-year period as a key measure of the success of its responses to disruption.