Unpacking Mission Statements of International Universities Recognized for Innovation

Kate A. Montgomery, Southern Methodist University, United States

Abstract

This research supports some of the mounting pressures higher education practitioners face in approaching innovation strategically while recognizing the mission-driven needs of the institution. Two research questions were examined. First, how do highly innovative universities balance traditional missions and innovation? Second, how do mission statements project isomorphic or distinctive rhetoric? This research was grounded in institutional theory given its relevancy to assessing the debate over legitimizing tendencies, such as symbolism and signaling. For the research design, the unit of analysis was at the institutional level, specifically, 85 of the top 100 international universities recognized for innovation by Reuters that had publicly accessible mission statements. For Phase I, a content analysis of mission statements allowed for Concept and In Vivo Coding using ATLAS.ti CAQDAS software. In Phase II, quota sampling was used to more deeply explore six universities: University of Tokyo, National University of Singapore, Stanford University, Harvard University, University of Oxford, and KU Leuven. Most universities featured fell closer to central tendencies which would suggest isomorphism in projecting the scope of their mission statements. Phase II allowed for the incorporation of a qualitative investigation – for instance, Oxford's intentional reference to innovation as opposed to Harvard focused solely on traditional mission. The National University of Singapore varied most strongly with the least descriptive rhetoric. This exploratory study piques research interest to pursue additional studies such as investigating the strategic plan alignment with missions and investigating explanatory, causal studies.

Keywords: Higher Education Institutions, Mission, Vision, Innovation, Mission Statements, International, Content Analysis, Comparative Analysis

Introduction

As institutions face challenges with balancing their traditional institutional missions and modern-day quests for relevance, they find themselves embracing innovation initiatives to thrive in the years to come. The age of the fourth Industrial Revolution, racial inequities and unrest, and most recently, a global pandemic have catapulted the most traditional, residential of campuses to innovate at lightning speed as they face existential threats.

This research supports some of the mounting pressures higher education practitioners face in approaching innovation strategically while recognizing the mission-driven needs of the institution. Two research questions were examined. First, how do highly innovative universities balance traditional missions and innovation? Second, how do mission statements project isomorphic or distinctive rhetoric?

A poorly constructed mission-vision statement can present negative outcomes, inconsistencies with strategic plans and resource allocations, accreditation vulnerabilities, and student recruitment, admissions, and enrollment declines (Morphew & Hartley, 2006). Of note, governing issues may expand beyond accrediting bodies to state and national departments of education, ministries of education, and international organizations such as the European Union, the United Nations, and the Organisation for Economic Co-Operation and Development (Özdem, G., 2011).

High research universities typically refer to three components of mission dependent on institutional type: teaching, research, and service in their respective communities (Harris, 2013; Morphew & Hartley, 2006; Thelin, 2019). Mission statements provide lenses to assess the rhetoric of traditional institutional missions and potential innovations in order to foster legitimacy and/or utilitarian purposes to guide strategic direction. A mission statement outlines the organization's purpose and serves as a roadmap for programs and initiatives; whereas a vision statement outlines an aspirational direction the organization would like to achieve in a future state (Jonker & Meehan, 2014). For purposes of this study, "mission statements" referred to both mission and vision statements given the use of one and/or the other by institutions measured in this research; both terms demonstrated the organizational goals, presently and in the future.

In their seminal work on innovation in higher education, Henderson (1970) and Thelin (2019) discussed the heritage of innovation in higher education such as the establishment of the land-grant system, professional schools, and community colleges. They posited that innovation has been built on the blending of society and individual needs of which are not static. Their positions aligned with a definition of innovation by Poole and Van de Ven (2004) in which they described innovation as "the wellspring of social and economic progress, and both a product and facilitator of the free exchange of ideas" (p. xi).

When considering theories most relevant to mission-related research, institutional theory was selected for grounding at a high level. Strong breadth of literature linked this theory to institutional rhetoric and its relevancy to assessing the debate over

legitimizing tendencies, such as symbolism and signaling, versus more meaningful utilitarian prose (Ayers, 2015; Meyer & Rowan, 1977; Morphew & Hartley, 2006).

So, why examine from an international vantage? First, mobility and technology have made international education increasingly more prevalent in the higher education sphere (Landorf, Doscher & Hardrick, 2018). Additionally, university missions often include solving broad societal challenges. Also, global citizenship and problem-solving are prevalent at the institutional and individual levels, even within their own backyards, such as with the presence of international students, migration, and global collaborations.

It is important to acknowledge the researcher positionality given experience in higher education, innovation, and corporate management from the United States. To mitigate potential bias, data was triangulated through secondary sources including literature outside of the United States and by obtaining advisor and peer reviews.

Research Design

This research built on previous studies based on exploring the Reuters (2018a) Top 100 universities recognized for innovation internationally (Montgomery, 2020a; Montgomery, 2020b). These universities were determined through an algorithm that measured patents, research, and publications (Reuters, 2018b). In Phase I, a content analysis (Merriam & Tisdell, 2016) was conducted by sourcing publicly available institutional mission statements for high research universities displayed in the English language of which 85 of the Top 100 universities were available. The 85 mission statement documents were uploaded into ATLAS.ti CAQDAS software to then be coded and serve as a benchmark against continents and institutional levels (ATLAS.ti, 2020; Contreros, 2017; Miles, Huberman, & Saldaña, 2014). Of note, the United States was referred to as a continent in comparison to Asia and Europe given the little incidence of Canadian institutions in the Top 100. In Phase II, quota sampling was used to select six institutions (two each from Asia, the U.S., and Europe) for closer examination against the benchmarks.

Data Analysis

Geographic Contextual Overview

Before exploring the mission statements, broader context was examined via descriptive statistics utilizing ATLAS.ti geospatial maps to provide a visual view (Yoon, Gulson, & Lubienski, 2018). This section was first published in an interdisciplinary overview to provide context leading into unpacking the mission statements (Montgomery, 2020b). Given the unit of analysis based on an international sample, geospatial mapping plotted the Top 100 institutions with publicly available mission statements (44 in the U.S., 22 in Europe, and 15 in Asia) (see Figure 1).
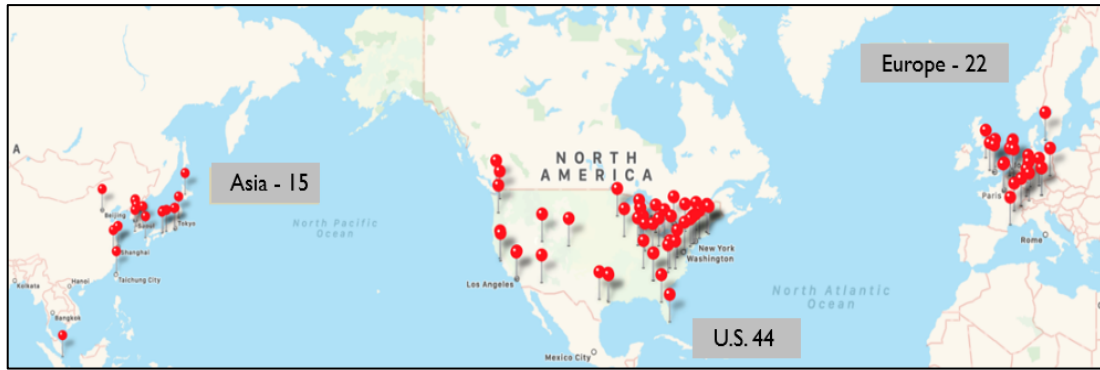
Figure 1: International Institutions Recognized for Innovation (Reuters, 2018a):
Geographic Dispersion Utilizing ATLAS.ti Software

In looking beyond the geospatial mapping, some variance by continent occurred in viewing the rankings by quadrant. The U.S. led the first three quadrants; Europe and Asia jockeyed for second and third positions in the first three quadrants; and Europe led the fourth quadrant followed by the U.S. and Asia respectively (see Table 1).

Top 25			26-50			51-75			75-100		
Region	#	%	Region	#	%	Region	#	%	Region	#	%
U.S.	17	68%	U.S.	12	48%	U.S.	10	40%	Europe	10	40%
Europe	4	16%	Asia	7	28%	Europe	8	32%	U.S.	7	28%
Asia	4	16%	Europe	5	20%	Asia	6	24%	Asia	6	24%
Other	0	0%	Other	1	4%	Other	1	4%	Other	2	8%
Total	25	100%	Total	25	100%	Total	25	100%	Total	25	100%

Table 1: International Institutions Recognized for Innovation (Reuters, 2018a) –
Geographic Composition by Rankings Quadrant

University Selections for Phase II

The unit of analysis for Phase II included six international institutions selected based on a quota sampling technique to equally represent Asia, the United States, and Europe based on the Top 100 (Reuters, 2018a) – University of Tokyo (Tokyo), National University of Singapore (NUS), Stanford University (Stanford), Harvard University (Harvard), University of Oxford (Oxford), and KU Leuven. These universities represented a good dispersion of mission statement approaches as evidenced with mission and innovation In Vivo Codes.

Category and Coding Process

The working definition for categories represented many elements within the defined scope (Merriam & Tisdell, 2016), were more explicit relative to themes (Rossman & Rallis, 2003; Saldaña, 2016), and were prescribed based on the research purpose and corresponding literature. When beginning the formal coding process (Saldaña, 2016), data was synthesized by building on the Concept Codes in light of the data collected. For instance, some of the preliminary codes based on the research were maintained such as innovation, teaching, and research. The need to create two catch-all codes, general mission phraseology and descriptive innovation phraseology, for quotations that did not fall into the more detailed Concept Codes was recognized (see Figure 2 for a category and concept codes listing).

Category	Concept Codes
Mission	General Mission Phraseology
	Teaching
	Research
	Service
	Traditional Mission
Innovation	Descriptive Innovation Phraseology
	Innovation Within Mission
	Innovation Beyond Mission

Figure 2: Mission and Innovation Concept Codes List

Descriptive Statistics for Top 100

The first data point assessed the total number of words in mission statements as a way to assess the depth of text to describe the institutional purpose. The mean number of words for the total universities amounted to 205, with Europe higher at 284 words and the U.S. and Asia lower at 194 and 124 words respectively. The ranges of words for each continent provided interesting accounts in that the U.S. and Europe were relatively close in ranges, 23-950 and 28-954 respectively. Asia exhibited mission statements of increased brevity at a range of 14-269. Of note, all universities with statements were left in the analysis as those on the higher and lower ends of the spectrum could be exhibiting less isomorphic behaviors (see Table 2).

	Total	Asia	U.S.	Europe
Mean	205	124	194	284
Median	130	94	156	181
Range	14-954	14-269	23-950	28-954
N	85	17	44	21

Table 2: International Institutions Recognized for Innovation (Reuters, 2018a):
Benchmarks – Total Word Count (University Average)

Unpacking Mission Statements for Six Universities

The Tokyo (2020) mission statement emphasized Mission Concept Codes at 89% on par with the institutional mean also at 89%. However, their total number of words at 92 compared to the institutional mean of 205. The Tokyo mission statement generated ten codes. Their mission statement emphasized all traditional areas of mission – a "world-class platform for research and education" and fostering a "strong sense of public responsibility." Innovation was evidenced with general phraseology such as "a pioneering spirt" and to "expand the boundaries of human knowledge" (see Figure 3).

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University of Tokyo
Mission Statement Summary

Total Words: 92
Mission vs. Innovation Concept Codes: 89% vs. 11%
Sample in Vivo Codes:
World-class platform for research and education
Strong sense of public responsibility and a pioneering spirit
Expand the boundaries of human knowledge in partnering with society

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Figure 3: University of Tokyo – Mission Statement Summary

The NUS (2018) mission statement emphasized the highest percentage of Innovation Concept Codes at 66%, well above the institutional mean at 11%. Their total number of words at 14 was the lowest frequency of all universities measured and well below the institutional mean at 205. The NUS (2018) mission statement generated four codes, the lowest number of all universities on the Top 100 list (Reuters, 2018a). The NUS mission statement was not only short but also used more general language that was not unique to high research universities around the world. Two In Vivo Codes signaled general innovation phraseology, "inspire and transform" and "shaping the future," one word related to mission, "educate," and one proclaiming prestige on an international scale (see Figure 4).

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National University of Singapore
Mission Statement Summary

Total Words: 14
Mission vs. Innovation Concept Codes: 34% vs. 66%
Sample In Vivo Codes:
Educate
Inspire and transform
Leading global university

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Figure 4: National University of Singapore – Mission Statement Summary

The Stanford (2020) mission statement was focused on a more visionary perspective with the traditional mission of research, education, and service embedded within which was expected given their premiere status as the international university most recognized for innovation. In fact, they emphasized Innovation Concept Codes at 53% versus the institutional mean at 19%. Their total number of words at 251 were closer to the institutional mean at 205. The mission statement generated 17 codes. Stanford emphasized strong evidence of traditional mission and innovation within their mission statement rhetoric such as finding "new ways of fulfilling mission." They included a good deal of innovation phraseology such as "discovery and creativity" and "transforming education" (see Figure 5).

Stanford University
Mission Statement Summary
Total Words: 251
Mission vs. Innovation Concept Codes: 47% vs. 53%
Sample In Vivo Codes:
Discovery and creativity
Accelerating impact
Transforming education

Figure 5: Stanford University – Mission Statement Summary

The Harvard (2020) mission statement emphasized Mission Concept Codes at 89% on par with the institutional mean also at 89%. They communicated specific language related to a liberal arts curriculum with some reference to innovation (e.g., "transformative") without explicitly stating. Their total number of words of 179 were less than the institutional mean at 205 but still relatively close. (see Figure 6).

Harvard University
Mission Statement Summary
Total Words: 179
Mission vs. Innovation Concept Codes: 89% vs. 11%
Sample In Vivo Codes:
Standard for residential liberal arts and sciences education
Experience an unparalleled educational journey
Intellectually and socially transformative

Figure 6: Harvard University – Mission Statement Summary

The University of Oxford (2020) mission statement emphasized Mission Concept Codes at 87% which is virtually on par with the institutional mean also at 89%. However, their total number of words at 191 were significantly less than Harvard at 179 and the institutional mean at 205. The Oxford (2020) mission statement generated 18 codes. Codes encompassed all areas of traditional mission – teaching, learning, research, and service. In some cases, they were intertwined such as with "world-class research and education," "independent scholarship and academic freedom," and "diverse staff and student body strengthens our research learning." Service provided the breadth of communities served by stating the intent to "benefit society" on a "local, regional, national and global scale." In regard to innovation, general phraseology with specific mention of innovation was evidenced such as "culture of innovation and collaboration." Innovation Within Mission rhetoric included "advancement of learning by teaching and research" (see Figure 7).

University of Oxford
Mission Statement Summary
Total Words: 191
Mission vs. Innovation Concept Codes: 87% vs. 13%
Sample In Vivo Codes:
World-class research and education
Long-standing traditions
Independent scholarship and academic freedom
Culture of innovation and collaboration

Figure 7: University of Oxford – Mission Statement Summary

KU Leuven (2020) did not publish a mission statement but did reference mission-related content in their policy plans. KU Leuven solely emphasized Mission Concept Codes at 100% with no innovation referenced in their mission statement. Their total number of words at 93 were significantly less than the institutional mean at 205. The KU Leuven mission statement generated seven codes. The mission statement focused on education and research with no immediate reference to service. In regards to education, they discussed "focus on the individual student" and "study programmes." Even more reference to research was exhibited with rhetoric such as "research-intensive" (see Figure 8).

KU Leuven
Mission Statement Summary
Total Words: 93
Mission vs. Innovation Concept Codes: 100% vs. 0%
Sample In Vivo Codes:
Research-intensive, internationally-oriented university
Learning in itself
Focus on the individual student, the study programmes, management and quality assurance of these programmes

Figure 8: KU Leuven – Mission Statement Summary

Summary of Findings

In reviewing descriptive statistics from a word count perspective, the U.S. and Europe both demonstrated a wide range of mission statement lengths which suggested more differentiation of how institutions were communicated. Conversely, Asia showed much less of a range and a lower median score which suggested more normative behavior within that continent.

When reviewing codes for Mission versus Innovation, Asia constituted the highest number of Innovation codes with the U.S. highest for codes related to mission (education, research, and service). In comparing universities specifically, Tokyo had a higher number of mission codes relative to peer institutions within the Asian continent. Conversely, NUS exhibited the highest innovation composition and the shortest mission statement out of all 85 universities researched. Stanford exhibited high innovation rhetoric and the longest mission statement of the six universities measured. Harvard focused on a high degree of mission language.

Both European universities, KU Leuven and Oxford focused on mission rhetoric. Of note, Oxford actually mentioned innovation outright in its mission statement while KU Leuven was the only university to make no reference to innovation.

Conclusion

Future Research Agenda Recommendations

Most universities featured fell closer to central tendencies than variances which could suggest isomorphism in projecting the depth of their mission statements. Descriptive statistics and associated benchmarks provided a good starting point but should incorporate qualitative investigation. For instance, Oxford's intentional reference to heritage and innovation contrasted Harvard who focused solely on traditional mission rhetoric.

Gaps in Literature

This research filled several gaps in the literature related to international higher education studies, the intersections of traditional university missions with innovation, and the critical use of ranking systems. It provided a vantage on interdisciplinary uses for ATLAS.ti software beyond the robust coding features, such as geospatial mapping.

Limitations

While efforts were made to understand the context of Asian and European universities, researcher positionality could be argued to posture a U.S-centric interpretation. To address this issue, international literature was included in addition to peer reviewers with experience in international higher education policy. Initiatives going forward would benefit from collaborations with Asian and European co-investigators. This descriptive study piques research interest to pursue additional studies such as investigating the strategic plans associated with operationalizing mission and innovation as well as investigating explanatory, causal studies.

Concluding Remarks

In closing, innovation continues to be hotly contested in the higher education sphere. A recent special edition of *The Chronicle of Higher Education* (2019) described the debate of innovation as a mechanism for "high hopes or broken promises" (p. 59). In the current worldwide climate of the COVID-19 pandemic, the world is witnessing higher education institutions rapidly innovate programming and policies in real time as a means to adapt to pressing challenges, and in many cases, to maintain existentiality. Also at this time, great emphasis is placed on focusing precious resources on initiatives most directly supporting institutional mission – the intersection of mission and innovation challenges faced in higher education today and for years to come.

Acknowledgements

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Contact email: kmontgom@smu.edu