

Internationalization and Programmatic Diversity of Higher Education Institutions—A Case Study of University of Toronto with Organizational Theory¹

Ting Du

Beijing Foreign Studies University, Beijing, China

As the most vivacious agents of internationalization, international students and their expanded enrollment have inevitably impacted the institutional diversity of higher education system, among which programmatic diversity bears the utmost prominence. As a critical structure of internationalization, programs reflect and reflect on institutional change of higher education institutions. When it comes to analyzing internationalization in higher education, systematic studies have been completed from the prospective of the institution itself, market and government. In terms of analyzing the contributors of institutional diversity, the bulk of studies target organizational theory as the efficient explanatory framework for diversity of higher education institutions. By combining internationalization analytical framework and organizational theory, the former perspective helps to explain programmatic diversification in institution's opinion and the latter one can work for government and market. Based on these two theories, five hypotheses are proposed as signals to lead the whole thesis. In order to figure out (a) what factors contribute to the diversification process of programs; (b) what effects have been caused by the expansion enrollment of international students to programmatic diversity in Canada, this paper opts for a most-likely case study—the University of Toronto (U of T). As an empirical study, this paper has testified five hypotheses and concludes that (a) international students have significant correlation with programmatic diversification; (b) but, the effect of its expansion enrollment is mainly economic; (c) administrative directives and other factors like academic norms still dominate some faculties.

Keywords: internationalization, programmatic diversity, higher education, organizational theory, case study

Internationalization is a sweeping force for global research universities. For higher education institutions (HEIs), international students stand for global competency. They not only bring economic, research, and cultural benefits, but also enhance institution's global reputation. The global distribution of international students has experienced exponential growth due to the equal access to cross-border education and prosperity of knowledge economy in the 21st century. In definition of this paper, international students refer to students enrolled in tertiary-level education programs, specifically levels 5 and 6 in the 2011 International Standard Classification of Education (ISCED), or the equivalent of bachelor's degree programs and above. OECD

¹ This paper is a conference paper presented in the 4th International Conference on Canadian, Chinese and African Sustainable Urbanization (ICCCASU 2021), July 28-31, 2021, Canada (Virtual).

Ting Du, M.A., School of English and International Studies, Beijing Foreign Studies University, Beijing, China. Her research interests are globalization and higher education, higher education policy, and international comparative higher education.

reported that the number of international students pursuing tertiary degrees abroad has increased on average by 4.8% per year between 1998 and 2018 (OECD, 2020, p. 226).

On the other side of the story, expansion of higher education has rendered diversity “a tool to accommodate growing student numbers” (Widiputera, Witte, Groot, & Brink, 2017, p. 49). “The expansion and diversification of higher education are twin phenomena” (Zha, 2009, p. 41). Internationalization is coupled with institutional diversity which refers to “the variety of higher education institutions within a higher education system” (Huisman, Lepori, Seeber, Frølich, & Scordato, 2015, p. 1). When it comes to internal variety, study programs are an overriding variable that “reflects the horizontal and vertical structures of any given higher education system” (Guri-Rosenblit, Šebková, & Teichler, 2007, p. 4). In order to avoid ambiguity in understanding, programs discussed in this thesis are degree programs only, short-term programs and exchange programs not included. Obviously, when integration is a high priority for international student experiences, opening up all degrees to international students within the campus is the inevitable and fundamental fact. For programs, the attribute of “being international” is normally defined for domestic students because of crossing border. For international students, they are accessible to all degree programs, making the conception of “programs” equivalent to “international programs” in the context of a foreign education institution.

Undoubtedly, universities have managed to take actions in order to better accommodate inbound students when internationalization has been regarded as an essential dimension of the higher education picture. However, has the expansion of international student enrollment somehow changed programmatic diversity of major world universities which boast international students? Canada serves as a qualified research object to answer such a question. The absolute number of international students in Canada is noteworthy. Among the top destinations for international students, Canada is the 4th largest destination (Project Atlas, 2019). Besides, Canada has witnessed striking growth rate of international students. The number of international students in 2017 is a 20% annual increase for Canadian HE system compared to a 1.5% in the US (NAFSA, 2019, p. 10). Proportionally, Canada has 21.4% of international students in higher education, the world’s second largest proportion compared with Australia’s 28% (Project Atlas, 2019). Above all, for Canada, programmatic diversity functions as a unique lens to institutional development of HE in an era of Globalization 4.0. “The lack of external diversity in Canadian universities has been offset, to some degree, by internal diversity within some institutions, particularly pursuant to federation or affiliation agreements” (Skolnik, 1986, p. 28).

Ontario is the most representative province for Canadian international education. Traditionally, Ontario, British Columbia and Quebec are the three giants in terms of international student enrollment. Within the milieu of Canada, Ontario is the paramount destination for international students with 48% of Canadian inbound students in 2019. Ontario has the largest provincial university system in Canada, in sum including 23 public universities and 26 colleges (Ministry of Education, Ontario). Ontario also enjoys a history of celebrating diversification of higher education system. In 2012, Ontario’s Ministry of Training, Colleges and Universities (MTCU) issued administrative imperatives in order to instruct HEIs in Ontario to pursue further institutional differentiation. Although some scholars have made predictions on such a progressive policy (Fallis, 2013; Milian, Davies, & Zarifa, 2016), most of the studies are theoretical without solid quantitative base. Ontario’s governmental policy as a major background, this paper will evaluate programmatic diversity of Canada by combining empirical data and theoretical hypotheses. Mere presence of international students doesn’t “help internationalize the campus” (Knight, 2011, p. 14), it begs the question:

(a) How has the variety of programs in Canada behaved?

(b) How can we explain the programmatic diversification from the perspective of government, market, and institution itself?

(c) How has the expansion of international students enrolled in Canadian universities influenced its programmatic diversity in the last decade?

Why Programs Matter for Internationalization of Higher Education?

Generally speaking, programs are worthy research subjects in higher education. First of all, programs are concrete metrics to evaluate quality of higher education. One venue to enhance the quality of higher education is “standardization of educational programs to generate knowledge” (Zolfaghari, 2009, p. 7). In addition, programs are strategic tools for universities to respond to pressures from different stakeholders. “Programs can be seen as one of policy instruments or, more generally, as one of the ways policy is actually translated into action” (Knight, 2004, p. 16). Lastly, programs are visible practice of policies. “Within higher education, policies are overall procedures or methods designed for program administration. Policies translated into practice become programs” (Lindsay, 1990, p. 209).

Internationalization substantiates the variety of programs. The widely cited definition of Jane Knight took internationalization as “the process of integrating an international, intercultural or global dimension into the *purpose, function or delivery* of post-secondary education” (Knight, 2004, p. 11). In Knight’s original ideas, delivery “refers to the offering of education courses and programs either domestically or in other countries” (p. 12). Programmatic diversity symbolizes institutional change of HEIs. “Diversity discourse and the existence of diversity programs suggest institutional change” (Berrey, 2011, p. 590). International students and diverse programs are cardinal parts of international activities. “Given the increase in demand for higher education, there are new providers, delivery methods, and types of programs” (Knight, 2004, p. 7). At institutional level, programs are one of the four carriers of cross-border higher education along with people, providers and knowledge (Knight, 2004). Specifically speaking, programs are “structural arrangements that provide cross-border technical assistance and educational cooperation programs” (Mitchell & Nielsen, 2016, p. 9).

Literature Review

Definition of Programmatic Diversity

Programmatic diversity is a branch concept of institutional diversity in higher education which is believed to be virtuous with benefits (Berrey, 2011). Definitions are multiple in terms of differentiation, diversity and diversification (Huisman et al., 2015). This paper has adopted Rossi (2009)’s definition of diversification: “the process whereby each institution changes, over time, relative to its own past configuration, by changing the proportions of different sub-units that it includes; the overall number of sub-units present in the institution can remain the same, or it can increase or decrease.” (p. 395). As one aspect of institutional diversity, the definition of programmatic diversity is originated from Birnbaum (1983)—“*Programmatic diversity* relates to the degree level, degree area, comprehensiveness, mission, and emphasis of programs and services provided by the institutions” (pp. 37-56). This paper aspired to reveal how programmatic diversity of one HEI has evolved when faced with expansion enrollment of international students.

Programmatic Diversity

The author’s review of literatures about institutional diversity follows the logic from factors to theories that are available to explain institutional diversity dynamics. A gargantuan part of attention to institutional

diversity has been invested in extrapolating factors contributing to or constraining the level of diversity institutional diversity (Reichert, 2009; Huisman et al., 2015). Generally speaking, these factors are not independent determinants (see Maassen & Potman, 1990; Rhoades, 1990; Guri-Rosenblit, Sebkova, & Teichler, 2007; Yang, 2010; Praphamontriping, 2010; McCaig, 2011). Rather, their impression on higher education systems can be concomitant and mixed (see Table 1). Government, institution, and market are three major agents in the entire discussion.

Table 1

Factors Promoting or Undermining Diversity in HEIs

Aspects of institutional diversity	Promoting diversity	Undermining diversity
Funding structure	a) "Separate funding sources". b) "Freedom of universities to set their own tuition fees".	a) "A large share of government funding". b) "Limited freedom of universities to set student fees".
Internal organizations	a) "Increased autonomy of public universities". b) "Attempt of universities to make best use of their local human and other resources".	a) "Increasing convergence of managerial regimes and organizational cultures". b) "Power of academics to defend their own norms and values".
Mission orientation	a) "Public policies allowing universities to be active in different core areas". b) "Massification of higher education and financial constraints" change universities' mission priority.	"Lack of mechanisms promoting horizontal differentiation alongside the research dimension".

Note. Source: edited based on Rossi, 2010, p. 46.

Stakeholders

Government remains powerful when it comes to higher education system development (see Birnbaum, 1983; Morphew, 2006). The effect of government regulation on institutional diversity is conditional and uncertain, which can be reduction force, accelerating diversity (Salini & Turri, 2016) or static with no obvious change (Erhardt & Von Kotzebue, 2016).

For the institution itself, different properties may account for diversity change. Understanding and measuring institutional diversity requires taking into account the "complex reality of institutional responses and the internal mix of their institutional missions" (Reichert, 2009, p. 6). Frølich and Stensaker (2010) demonstrated that institutional profile especially institutional identities influence the practices whether student recruitment strategies respond to excellence or diversity (Frølich & Stensaker, 2010, p. 359). Fumasoli and Huisman (2013) explored how institutional positioning influences the level of diversity within higher education systems, specifically speaking, how universities respond to governmental policies and competitions from other institutions when they address diversity issues strategically.

From the perspective of market, Rossi (2009) empirically proved that diversity should not be taken for granted as natural outcome of competition among institutions. Teixeira, Rocha, Biscaia, and Cardoso (2012) provided an empirical study about programmatic diversity in Portuguese HEIs and concluded that competition has induced specialization in the private sector of education. In contrary, Fumasoli (2011) argued for more institutional differentiation under environmental pressures that "universities are better off when they differentiate themselves according to one or more dimensions of the niche" (p. 163). Salini and Turri (2016) rooted for competition and de-differentiation and argued that "universities are encouraged to adopt strategical behaviors and to seek new market niches" (p. 1167).

Theoretical Perspectives

Theoretically, scholars are concerned about explanatory models for institutional diversity dynamics. How to explain the process of institutional diversification usually falls into three theoretical perspectives of organizational theory: “the population ecology perspective, the resource dependency perspective and the institutional isomorphism perspective” (Van Vught, 2008, p. 153). These three perspectives are different but possess common assumptions that HEIs and their environment have mutually restraining relationships (see Hannan & Freeman, 1989; Stevens, 2007).

Canadian studies and their own analysis of institutional diversity of higher education are slow and partial. The earliest influential study is conducted by Skolnik (1986) where he assessed Canadian higher education system with the US as an evaluation benchmark. Afterwards, Skolnik (2013) reviewed how official policies addressed the interest of institutional diversity through discourse. Marshall (2008) provided an appallingly rough analysis about forces behind the expansion of bachelor degrees and programs in Canada. In order to predict the effect of Ontario’s diversity promotion policies in 2012, Fallis (2013) referred to institutional isomorphism perspective to argue less institutional diversity and more similarity within the entire higher education system. Milian et al. (2016) employed the perspective of institutional isomorphism to predict the de-differentiation of Ontario HEIs. Buzzelli and Allison (2017) harnessed organizational theory to reveal how Ontario’s special higher education reform—strategic mandate agreement (SMA) influence Ontario’s HEIs. Bouchard St-Amant, Brabant and Germain (2020) studied Quebec’s funding enrollment-based formula to HEIs which was a reform since 2018 and its effect on HEI’s strategic behavior and admission outcomes.

Governmental policies, market and institution positioning are three major themes. Scholars agree that institutional diversity is a normative value whereas in reality it leads to different institutional arrangements since the needs of students and faculties will differ. “In order to investigate the effects of policies and trends on diversity in higher education systems, it is important to specify which aspect of the system the concept of diversity is applied to, and to study it separately from other aspects” (Rossi, 2010, pp. 29-30).

Research Niche

As one single dimension of institutional diversity, specific studies on programmatic diversity are limited, yet the existing literature on measurement of institutional diversity is abundant with a long history (Birnbaum, 1983; Huisman, 2009; Teixeira et al., 2012; Huisman et al., 2015). Most of these studies are horizontal that they attempt to describe the intricacy and complexity of institutional diversity with operationalized indicators in a static status. Seldom do they apply longitudinal analysis or combine longitudinal and horizontal dimensions together (Teixeira et al., 2012). In order to reveal practical changes in programs, this paper has traced the history of programmatic diversity and contributed to the academic field with a comprehensive longitudinal analysis. By probing how organizational arrangements affect the process of programmatic diversity, this paper can make certain difference to the field of diversity studies with the help of two dominant perspectives—the institutional positioning perspective and the resource dependency perspective.

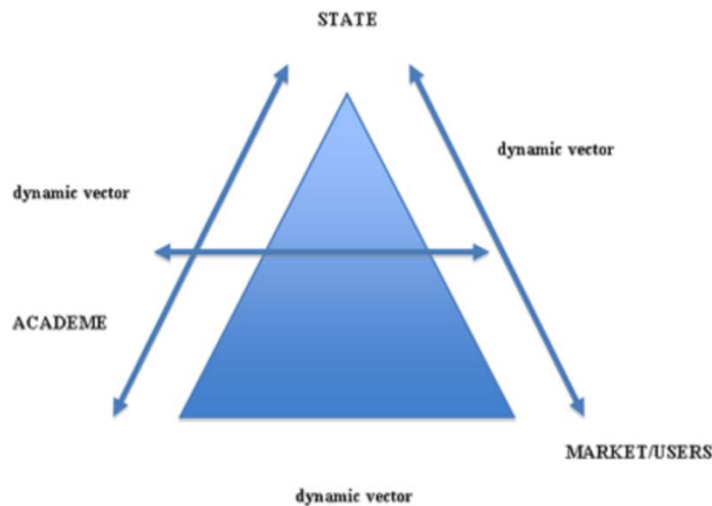
Theoretical Framework

Analysis of internationalization and programmatic diversity in the past are curiously separate from each other. Internationalization of higher education as a research area is more positivistic than normative. Therefore, its theoretical framework is developing in accompany with insufficient empirical verification. Traditional

analysis of internationalization in higher education is tri-variate (see Clark, 1983; Rumbley, 2010). Clark's Triangle in 1983 is chosen in this paper "as a means of explaining and measuring the resilience of systems of post-secondary education" (Lang, 2015, p. 1) (see Table 2).

Table 2

Clark's Internationalization Cycle



Note. Source: Clark, 1983.

Organizational theory is the mainstream choice to explain institutional diversity, by all means, programmatic diversity included. As an eclectic field, organizational theory studies the organizational behavior of universities and colleges with strong personification. HEIs are vulnerable facing pressures from "external influences as changing economic conditions and the agendas of legislators, corporate and philanthropic foundations, accrediting bodies, and state education commissions" (Kuh, 2003, p. 269). On the other hand, HEIs initiate new balance dynamics when they become more or less independent from the environment (Zha, 2009). Institutional positioning theory and resource dependency theory are evolutionary organizational theories which "conceive of organizational change as adaptations to shifting environments, competition, and population changes, with organizations proceeding through ongoing cycles of variation, selection, and retention of practices, policies, or forms" (Howley & Sturges, 2018, p. 6). Institutional positioning is a necessary condition for resource dependency theory and a prerequisite for HEIs when adapting strategies to fit environmental standards. Based on the assumptions of these two theories from three angles of internationalization (university, government, market), five hypotheses are proposed which serve as the foundation for hypothesis-testing methodology and research design.

Governmental Leverage

A note of caution concerning governance in international education resides in the magnitudes of understandings, interpretations and realization (Bartell, 2003). The influential power of governments in higher education is majorly two aspects—legislative and financial. The autonomy of universities remains constrained by legislative frameworks, "internal structural characteristics and the external developments of the policy context" (Mosneaga & Agergaard, 2012, p. 534) since "increased autonomy often comes with strings attached" (Huisman, 2009, p. 357). Cerna (2014) observed that the success of the internationalization of universities

depends on its synergy with the national policy. Being said, governments and universities are equally important when coping with international higher education because they are two attributing factors pulling international students to their receiving countries (Bhandari, Robles, & Farrugia, 2018, p. 2).

Institutional Positioning Theory

Universities are regarded as instrumental agents of internationalization (De Wit & Altbach, 2020, p. 9). In addition, how to satisfy the increasing needs of diverse students and faculty body presents challenges to universities. Or in Knight's words, the pressing concern for universities is about "embracing the importance of the international dimension of higher education and developing policies and priorities in response to the new demands and opportunities stimulated by globalization" (as cited in Ninomiya, Knight, & Watanabe, 2009, p. 117). Diversification is the destiny for modern universities because "diversity helps universities to cope with the new functions and to better meet the new demands coming from an enlarged audience of stakeholders (students, labour market actors, companies, institutions)" (Goglio & Regini, 2017, p. 2).

Fumasoli and Huisman (2013) contended that institutional positioning of HEIs impacts system diversity and it should be incorporated into the discussion of diversity in higher education. "Institutional positioning in higher education is the process through which higher education institutions locate themselves in specific niches within the higher education system" (Fumasoli & Huisman, 2013, p. 160). How HEIs define themselves in a higher education system is a determinant for their diversification performance. "HEIs are not only organizations, but should be understood as institutions, with a mission, that attach significant weight to issues of history, tradition, norms, and path-dependency" (Teixeira et al., 2012, p. 350). Taking one institutional positioning aims partly to evade competition by "carving out a sustainable niche" (Fumasoli & Huisman, 2013, p. 162) and partly to seize more market share (for students and for revenues).

Apart from programs, institutional profile of HEIs presents their institutional positioning with mission statements and strategic goals in official discourses. Internationalization and its related expressions like "global competence", "global engagement", and "global perspective" are extremely popular in HEI's official statements when they seriously take internationalization as a priority. Though often denounced, rankings are the most visible indicator of status of HEIs. "They offer applicants, alumni, and donors a single metric to summarize a multitude of qualitative differences between universities" (Milian et al., 2016, p. 29). Recruiting and enrolling international students are conceptually and rhetorically congruent with a bigger picture of internationalization agendas for universities at the institutional level. Therefore, for research universities which provide comprehensive fields of study, it is natural for one to assume its level of diversity increases with more international students enrolled.

Hypothesis 1:

Universities which enjoy high global reputation practice programmatic diversification.

Resource Dependency Theory

Resource dependency theory is suitable for explaining internal organizational dynamics. Firstly, organizational theory believes that HEIs are linked to the external surroundings for their materialistic dependence on resources to survive, for instance, students and funding. Secondly, a HEI needs to access external resources from actors in the environment and will initiate active innovation when resources are relatively scarce. Environmental changes have pushed HEIs to look beyond traditional sources of revenue for obtaining new resources. Lastly, resource dependency theory acknowledges fierce competition among

organizations. It cares about power dynamics among institutions within a system which “result from interorganizational dependencies” (Bastedo & Bowman, 2011, p. 5).

Competition for resources in market mechanism is a core concept in resource dependency theory. The targets of competitive resource are governmental funding and student fees. There are two remarkable phenomena in the field of higher education entering the 21st century: (a) “The stagnation or decline in public resources allocated to higher education systems in almost all advanced economies” (Goglio & Regini, 2017, p. 7); (b) harsh competition for students and reputation as major source of revenue. Canada has a strong tradition of government taking funding and financial responsibility of universities. Normally speaking, more governmental funding means less autonomy and self-determination for HEIs. Conversely, more resources coming from students should be able to enhance the innovation of program design and delivery.

Hypothesis 2:

Change of governmental funding in revenue composition is negatively correlated with the number of programs.

Hypothesis 3:

Vice versa, change of student fees is positively correlated with the number of programs.

Market is another key word for competition embedded in resource dependency theory. Heydinger (1994) asserts “Twenty-first century’s higher education must become mission-driven, customer-sensitive, enterprise-organized, and results-oriented” (p. 1). Taken as a consumer market “where people normally exchange money for desired goods or services” (Clark, 1983, pp. 162-165), universities must be structurally responsive “not just to economic opportunities that derive from tapping the global higher education market, but more important, to enriching opportunities for global engagement in their teaching and learning environments” (Siczek, 2015, p. 15). Public universities should gauge the needs of the marketplace and costumers, and then “adapt their product and processes to meet some of these needs” (Powell & Rey, 2015, p. 97). Besides, consumer sovereignty determines that students demand good value for their money. Labaree (2012) argued that educational consumers dictate the landscape of American higher education and high-status universities cater to students’ academic preference. International students have been clientele of university programs. In order to satisfy the needs of increasing international students, more programs should be created, especially in the fields of study where international students are unneglectable.

Hypothesis 4:

Proportion of enrollment of international students is positively correlated with the number of programs and fields of study in HEIs.

Hypothesis 5:

Proportion of international students in different fields of study is positively correlated with their diversification.

Methodology

The literature review has highlighted the necessity to describe and explain the effect of expansion of international student enrollment on programmatic diversity of Canadian HEIs. Knight (2004) suggests that “at the individual, institutional level that the real process of internationalization is taking place” (pp. 6-7). After careful consideration, this paper applied case study of programmatic diversity in a decade to provide an empirical analysis via the most representative case study of international university in Canada—University of

Toronto (U of T), combining its present and past performance from 2010 to 2019. All modern universities are struggling for the “tension between the pursuit of knowledge generation as a self-determined institutional objective and the statement of national priority as defined in the aims and goals of the tertiary system” (OECD, 2020, p. 15). It is no exception that U of T has experienced transition of missions and tasks.

“Education is a borrower discipline, appropriating methodologies from traditional disciplines and having no claims to its own methodology” (Leonardo, 2013, p. 602). Case study is traditionally a favorable research methodology in educational research. “Research is, after all, producing knowledge about the world—in our case, the world of educational practice” (Merriam, 1998, p. 3). The development of case study in education is energized by Robert Yin, Sharan Merriam and Robert Stake as the three most notable research methodologists. In terms of data analysis, Merriam and Stake prefer case study as a natural qualitative study while Yin believes the distinction between qualitative analysis and quantitative analysis is not irreconcilable disparities. “Regardless of whether one favors qualitative or quantitative research, there is a strong and essential common ground between the two” (Yin, 2002, p. 15). Therefore, the epistemological commitment of this paper chose to stand with Yin (2002). Yin (2002) defines case as “a contemporary phenomenon within its real-life context, especially when the boundaries between a phenomenon and context are not clear and the researcher has little control over the phenomenon and context” (p. 13). The point of view of Yin and his disciples is to unfold the case by “addressing the how or why questions concerning the phenomenon of interest” (Yazan, 2015, p. 138), which is of great value for program evaluation.

The Most Likely Case

Choosing one university merits special explanation because “Each institution is in the best position to determine its own diversity goals in light of its educational objectives” (Alger, 1997, p. 22). Choice of case should be careful, theory-guided and nonrandom in Yin’s definition. Selection of U of T is primarily for the purpose of *hypothesis testing*. The advantage of case studies is not seeking “frequencies of occurrences”, but “separating the significant few with the insignificant many instances of behavior” (Louis, Keith, & Lawrence, 2000, p. 185). As such, choosing U of T as a most-likely case is premised on the assumption that it is comparatively more significant than any other HEIs in Canada. Compared to Ontario and Canada, the prior literature concerning institutional diversity suggests that the higher level of internationalization a university is, the more likely it can fit into the organizational theory. U of T holds the highest rankings in all world ranking systems for research universities in Canada. If the data contradict the theoretical expectations, this case can be powerful to reinvent and even reverse the theory. The logic beneath most likely case design is the inverse “Sinatra inference”—“if I cannot make it there, I cannot make it anywhere” (Levy, 2008, p. 12). A single case can still be influential when the case study is designed to testify certain theoretical propositions.

How to Measure Programmatic Diversity

The author has combined critical analysis and quantitative study zooming one *case study*—U of T in order to fulfill a triple-dimensioned purpose: to depict the picture of programmatic change in the U of T. “There is no textbook recipe for how to measure diversity, but the selection of dimensions, variable and analytical methods must be seen in the context of the specific goal of the study and its analytical framework” (Huisman et al., 2015, p. 8). Therefore, the author chose to testify the correlation between three independent variables—(a) proportion of international students in total enrollment; (b) proportion of government funding in total revenue; (c) proportion of student fees in total revenue and two dependent variables—(i) the number of university programs;

(ii) fields of study, respectively. The time span of national data is set in the range between 2010 and 2018 whereas data from U of T is 2010-2019 for their availability.

Case study as “an aggregative synthesis method”, “might be most appropriately applied to descriptive, ‘thin’ data, for instance from project documents or surveys” (Snilstveit, Oliver, & Vojtkova, 2012, p. 416). The author has gathered qualitative data and conducted empirical analysis. By collecting data from Statistics Canada and the official website of U of T, this paper has conducted two pairs of correlation testaments by using statistics operating tool—SPSS. After completing the quantitative study, thereby, the critical analysis ensued. Theoretical assumptions are the benchmark of this paper because “Reality does not make immediate sense to people; it has to be filtered through interpretive frameworks” (Leonardo, 2013, p. 600). With the auspices of academic papers, official statements, and quantitative data, this paper analyzes the influence of government and market on this phenomenon from the perspective of two organizational angles—institutional positioning perspective and resource dependency perspective.

By all means, case study of this paper is not perfectly flawless. It bears some natural shortcomings. For example, solely relying on website sources will challenge validity. “It is possible that not all internationalization processes taking place at the institution are reflected on the website, or alternatively, international activities may be exaggerated for the purposes of publicity and prestige” (Cohen, Yemini, & Sadeh, 2014, p. 36). In order to achieve reliability, Yin believed that case study should rely upon diverse sources of evidence and data, for which he suggests six types of evidentiary sources: “documentation, archival records, interviews, direct observations, participant observation and physical artifacts” (Yazan, 2015, p. 142). Apart from documents and archival data from websites, the author has been an exchange student of U of T in 2017, which can utter certain personal observations about internationalization in Toronto.

Results

Programmatic Diversity of the U of T

U of T is the most world-known university in Canada. It has showed unequivocal diversification of programs in the last decade, proving the reasonable statement of Hypothesis 1. The diversity of programs in HEIs covers both the number of programs, the number of fields of study, and the types of programs. U of T indeed has gone through striking diversification in programs during the last decade (see Figure 1). To begin with, the overall number has increased from 131 to 277. Unlike the number of programs, the number of fields of study almost remains unchanged for the last decade (see Figure 2). When it comes to types of programs, U of T has compiled their programs into two general categories and several subcategories. *Regular programs* include bachelor, master and doctoral degrees. Obviously, it stays quite stable numerically whereas the number and type of *combined multi-divisional programs* has changed drastically over the last decade (see Figure 1). This subcategory has an over 10 times growth in its amount from 2010 to 2019.

Lastly, let's take a closer look at the combined multi-divisional category itself. In the last decade, members of this small unit have not been in tandem with each other as for their growth (see Figure 3). The number of *Undergraduate/Master programs* has been rocketing since 2014 and it accounts for 74% of the entire category with 116 programs in 2019. *Conjoint program* firstly appeared in 2016. *Dual degree* and *double degree* are new types of programs firstly appearing in 2018. U of T St. George, Mississauga, Scarborough provide the entire bunch of undergraduate/master combined degree programs. These three campuses are houses to Arts & Science faculties where the number of Undergraduate/Master programs has been soaring. Specifically

speaking, growth situation is varied among these three different campuses. Judging from the results, U of T Scarborough has dominated the diversification of undergraduate/master combined programs with a pure increase of 66 (from 12 to 78) while the number of Mississauga has increased 22 (from 7 to 29), St. George 7 (from 2 to 9) (see Figure 4).

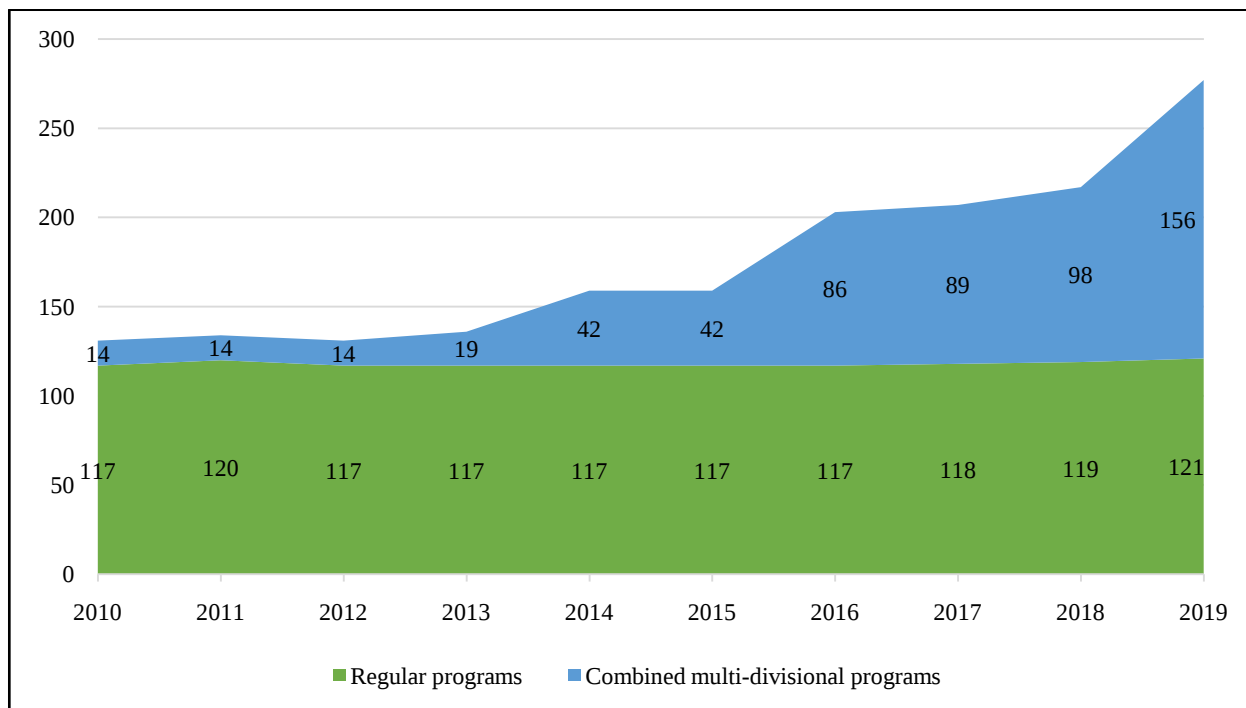


Figure 1. Number of programs in different types, U of T, 2010-2019 (Source: Annual reports of U of T, 2010-2019).

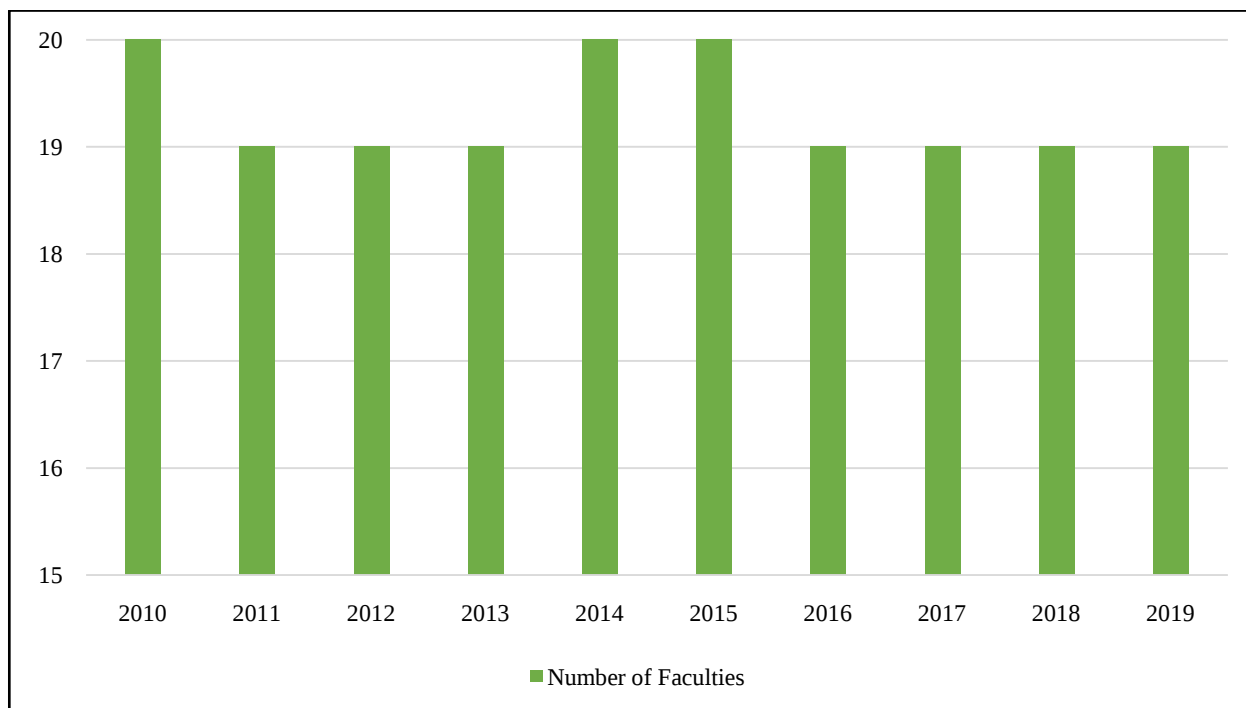


Figure 2. Number of fields of studies in all programs, U of T (Source: Annual reports of U of T, 2010-2019).

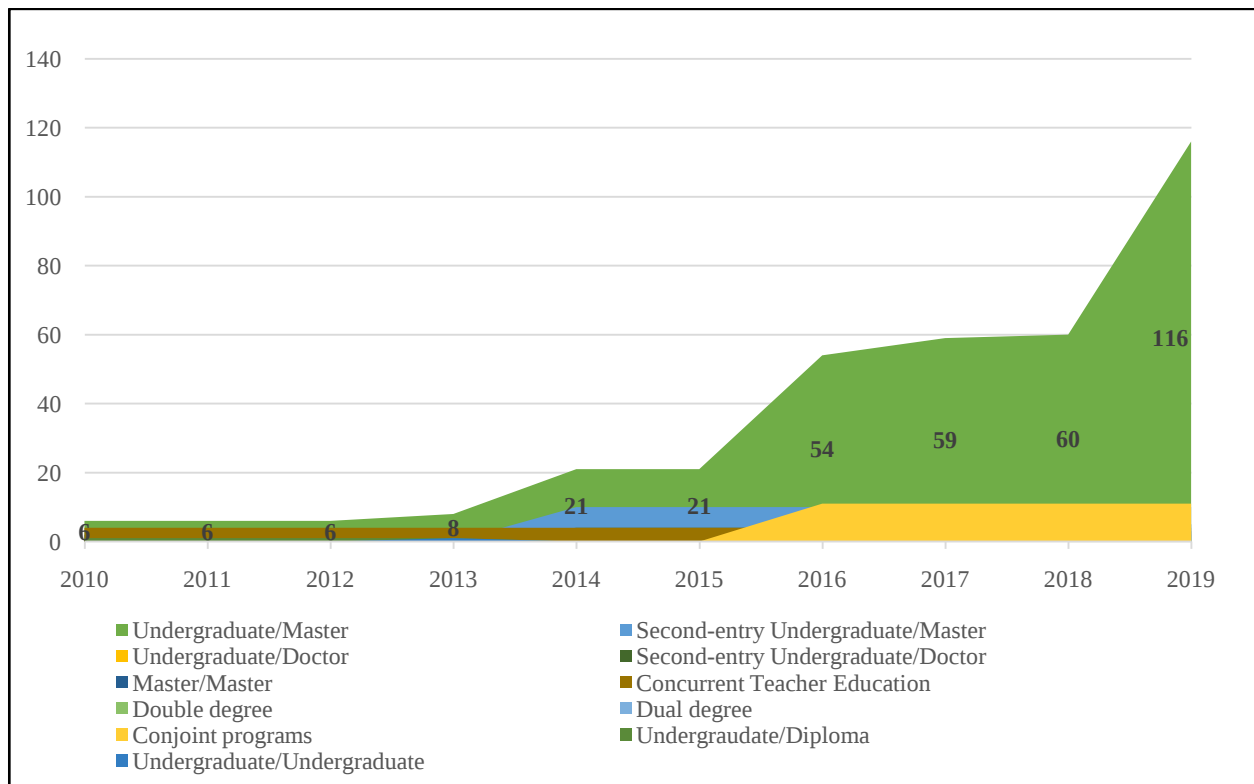


Figure 3. Comparison of the number of types of combined multi-divisional programs, U of T (Source: *Ibid*).

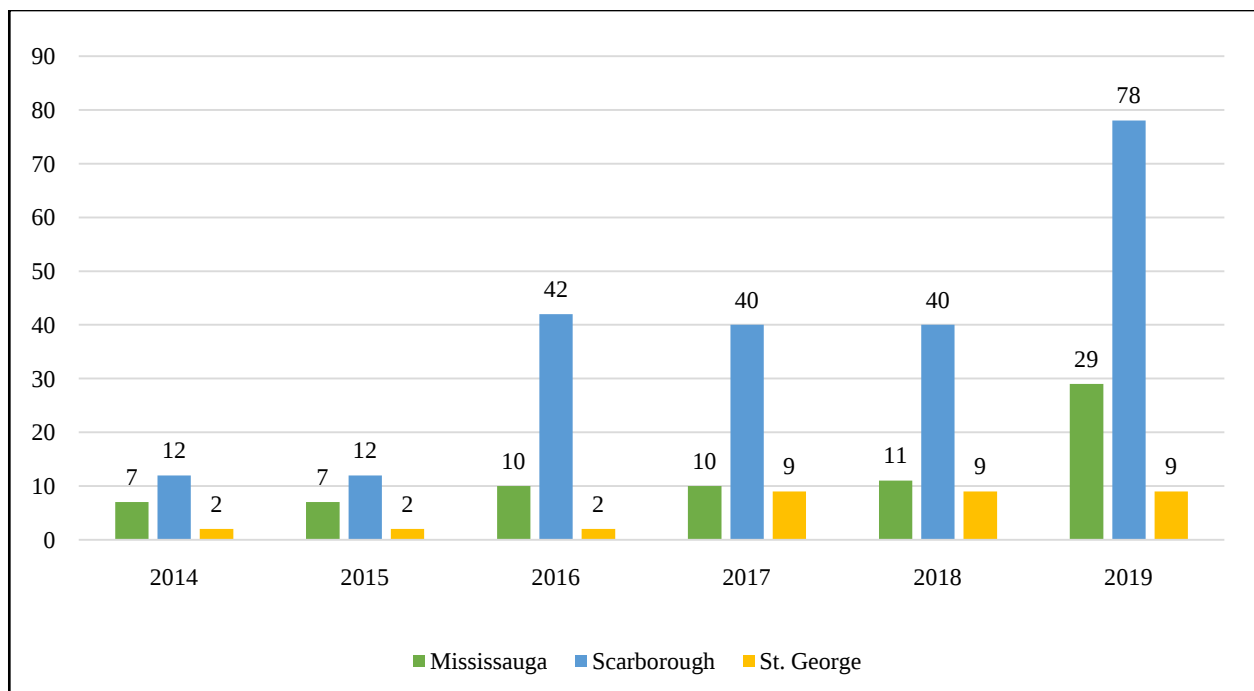


Figure 4. Number of undergraduate/master programs in 3 campuses, U of T (Source: *Ibid*).

Empirical Results

The bulk of empirical tests is correlation tests related to five hypotheses. In general, there exists positive and significant correlation between expansion enrollment of international students and the number of programs

(0.946, $P < 0.01$) (see Table 3), which proves Hypothesis 4 basically right. With more international students registered, less governmental funding weighs in for U of T revenues (-0.996, $P < 0.01$). Hence, Hypothesis 2 is also proven right that programmatic diversification has a significant negative correlation with the proportion of governmental funding (-0.93, $P < 0.01$) (see Table 3). Increasing proportion of international students seemed not to bring about more fields of study in programs. Results show no significant correlation between these two variables (-0.322) (see Table 4). So, Hypothesis 4 only enjoys partial validity, which requires further justification in the next part.

Table 3

Pearson Correlation Coefficients Between Proportion of International Student Enrollment, Number of Programs, and Proportion of Governmental Fund

	International students proportion	Programs	Governmental funding
International students proportion	1.00	0.946**	-0.996**
Programs	0.946**	1.00	-0.930**
Governmental funding	-0.996**	-0.930**	1.00

** : Correlation is significant at the 0.01 level (2-tailed).

Table 4

Pearson Correlation Coefficients Between Proportion of IS Undergraduate/Graduate Enrollment and Number of Fields of Study, U of T

	International students enrollment	Fields of study
Fields of study	-0.322	1
International students Enrollment	1	-0.322

Fallis (2013) believed that the market need for expansion of Ontario education system is slight. The empirical tests in U of T show contrary results (see Table 5). Hypothesis 3 has been proved to be correct. More international students contribute to more student fees, which is exemplified by positive correlation between these two variables (0.99, $P < 0.01$). The value of Pearson correlation is extremely close to 1, meaning that enrollment of international students strongly correlated to proportion of student fees in U of T revenues. Consequently, there is a significant positive relationship between the proportion of student fees in the structure of U of T revenues and program diversification of U of T (0.926, $P < 0.01$).

Table 5

Pearson Correlation Coefficients Between Proportion of International Student Enrollment, Number of Programs, and Proportion of Student Fees, U of T

	International students enrollment	Programs	Student fees
International students enrollment	1.00	0.946**	0.990**
Programs	0.946**	1.00	0.926**
Student fees	0.990**	0.926**	1.00

** : Correlation is significant at the 0.01 level (2-tailed).

The enrollment circumstance in the U of T leans more on undergraduate degrees, which is consistent with the national fact (67% of international students enrolled in bachelor's degree). According to the basics of programmatic diversity of U of T, correlation tests have been tried between proportion of international student undergraduate enrollment and Undergraduate/Master combined programs in U of T Mississauga, U of T

Scarborough, U of T St. George (see Table 6). These correlation tests are to verify Hypothesis 5, which speculates the positive relation between campuses with more international students enrolled and the number of programs designed. Since data of Undergraduate/Master combined numbers are only available from 2014-2019, the tests have to be restricted in this time range. There is a significant correlation between international student enrollment expansion and programs in Scarborough (0.884, $P < 0.05$). Somehow, no significant results exist in Mississauga and St. George though the proportion of international students in these two campuses is always larger than that in Scarborough. St. George is always the primary campus in the U of T for international students and the proportion of international students has grown from 24.2% in 2014 to 44.4% in 2019. Mississauga used to enjoy the second largest proportion of international students with 17.8% in 2014 whereas in recent years it has been caught up by Scarborough with only a third international students in 2019. Scarborough's proportion of international students has increased dramatically from 14.3% in 2014 to 35.1% in 2019 and successfully surpassed Mississauga to become the second largest proportion of international student campus in 2019. Therefore, Hypothesis 5 has only partial truth and abnormalities in Mississauga and St. George may deserve more analytical attention.

Table 6

Pearson Correlation Coefficients Between Proportion of International Students Undergraduate/Graduate Enrollment and Number of Undergraduate/Master Programs, U of T

	Mississauga	Scarborough	St. George
Pearson correlation	0.616	0.884*	0.786
Significance	0.193	0.019	0.064

*: Correlation is significant at the 0.05 level (2-tailed).

Theoretical Discussion

In sum, it is safe to conclude that U of T absolutely has diversified itself in the number and type of programs in the last decade. However, though expansion of international student enrollment economically accelerated such diversification, market and student fees are not the only reasons. The market force for diversification is coupled with government policies and institutional positioning. Organizational theory put more weight on the interaction between HEIs and their environment. The underlying mechanism for U of T's programmatic diversification is illustrated from the perspective of itself, government, and market.

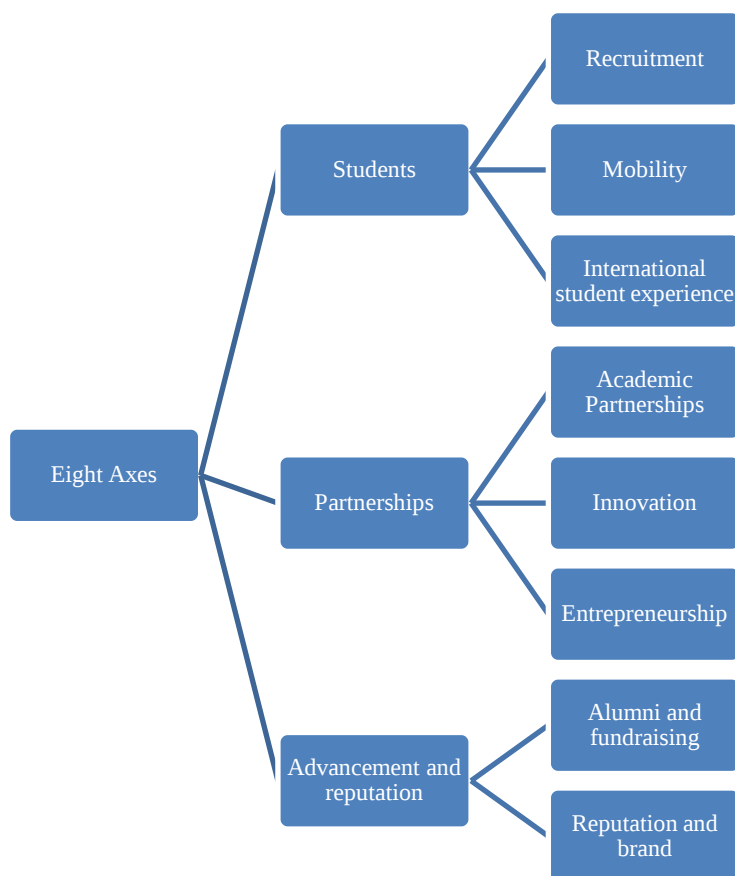
Institutional Positioning

Institutional positioning affects diversity by multi-layered package—education profile (programs, faculty, research etc.), student body, and strategy of HEIs. The types of programs and the number of programs decide whether a HEI is qualified for its own image. U of T has realized the importance of enhancing its position worldwide in the last decade. In 2019-2020 Annual Report of the Vice-President, International, it states that “global engagement shapes our institutional ethos and touches every aspect of our enterprise” (U of T Annual Report, 2019, p. 2). According to Canada's national ranking of universities—Maclean magazine's ranking 2021, by reputation, U of T ranked the first in general, as well as in education quality, innovation and cultivating leaders of tomorrow. Pronouncing itself as a “global university” in its annual report, U of T values its global engagement and its position in the world. In 2015, the Governing Council of the U of T has specifically pointed out the priority to “strengthen and deepen key international partnerships by means of a well-defined strategic

focus” (U of T International Strategic Plan, 2017, p. 1). Toronto issued its own *2017-2022 International Strategic Plan*, in which it stresses the institutional positioning and “specific recommendations to strengthen this position” (*Ibid*). By infusing “international and comparative perspectives throughout teaching and research activities”, Toronto is promising to enrich its global impact (*Ibid*).

Table 7

The Eight Axes of International Strategic Plan, U of T, 2017



Note. Source: 2017-2022 International Strategic Plan, U of T, 2017.

Programmatic diversification is a result of its global institutional positioning. Enhancing global excellence “means attracting the best talent worldwide, including faculty, staff and students” (U of T Annual Report, 2018, p. 1). U of T and its International Strategic Plan provides a global perspective: “leveraging the university’s urban location and re-imagining and reinventing undergraduate education” (*Ibid*, p .2). Eight axes in three angles showcase Toronto’s plan on internationalizing the campus (see Table 7). For students, recruitment, mobility, and international student experience are their goals; for partnerships, academic partnership, innovation, and entrepreneurship are their aims; for advancement and reputation, alumni and fundraising, reputation and brand are their concerns. Its purpose is to “position the U of T for success on the international stage” (U of T International Strategic Plan, 2017, p. 1). The necessity between enhancing global competitiveness and recruiting the best students worldwide is specially mentioned. HEIs value diversity programs as essential parts of “comprehensive internationalization strategies” (Hudzik, 2011). Diversification

of programs is a key step to improve education quality and satisfy international student experience in the U of T. Developing supportive programs for international cohort is a grand gesture to serve international students. One of five themes of this commitment is to “enhance programs and services to serve U of T students from all backgrounds” (U of T Annual Report, 2018, p. 7). U of T’s self-positioning as the only world-class institution in the province has helped it succeed in attracting international students. Also, for this unique status, it has no choice but to diversify itself to abide by provincial diversification policies and to set an example for other HEIs in Ontario and the rest of Canada. Lester B. Pearson International Scholarship Program is U of T’s most reputed scholarship for international students. Besides, Karta Initiative and MasterCard Foundation Scholars facilitate the recruitment process.

Resource Dependency—Governmental Leverage

Government influence on publicly funded universities is limited in three aspects—“funding, fee structures, and the introduction of new programs” (CMEC). Since 2008, provincial governments gradually can not afford the overbearing expenditures of HEIs, making public-funded universities in Ontario has no choice but to fend for themselves. The diversity of Canadian higher education *finance* has been constantly changing (see Figure 5). The layout has changed dramatically after 2008, the disastrous global financial crisis. Government revenues have dwindled compared to the first period and submitted to private revenues step by step, making itself the second source with less than half of the entirety since 2013. On the contrary, private revenues have surpassed governmental funds, took the dominant position and become the primary source of revenues for universities with percentage over 50. Similarly, another notable situation is that student fees have absolutely diversified the source of revenues. It has increased from 18.8% in 2000 to 26.6% in 2016 in Canadian universities. Taking U of T as an example (see Figure 6), governmental funding is taking less than 30% of its entire revenues in the last decade with 20.22% in 2019. Financially, governmental support is a safety net for U of T to conduct teaching and research activities and maintain its institutional status nationwide and worldwide. Its financial reliance on student fees has been roaring from 31.72% in 2010 to 48.09% in 2019. Student fees has seized up more and more weight in U of T’s total revenue and has always been the foremost source of revenue for this university.

On the other hand, HEIs are bestowed with autonomy is a given. Still, government has been a leading role in promulgating *strategies* for HEI development and holding HEIs accountable for governmental funding. Ontario’s education responsibility mainly falls upon public universities with 70% of post-secondary students enrolled in universities (Milian & Hicks, 2014). In 2012, MTCU instructed HEIs in Ontario to pursue further institutional differentiation in order to cope with the aftermath of Economic Recession in 2008. In *Strengthening Ontario’s centres of creativity, innovation and knowledge*, MTCU states the reason for transforming HEIs that “increasingly diverse and mobile learners are expecting ever-increasingly high quality in return for what they pay” and “the broader public is looking for concrete results from the investment of scarce public resources” (Ontario, 2012a, p. 4). The purpose of Ontario government is to “put students first” and ensure “high quality, and globally competitive outcomes for students and Ontario’s creative economy” (Ontario, 2012a, p. 7). All degrees offered by HEIs in Canada have to be approved by provincial government. Consequently, it’s safe to say that political force has motivated the innovation and diversification of degree programs in light of number and types. U of T’s choice of programmatic diversification can be partially traced back to MTCU’s directive for the number of programs took off in 2013.

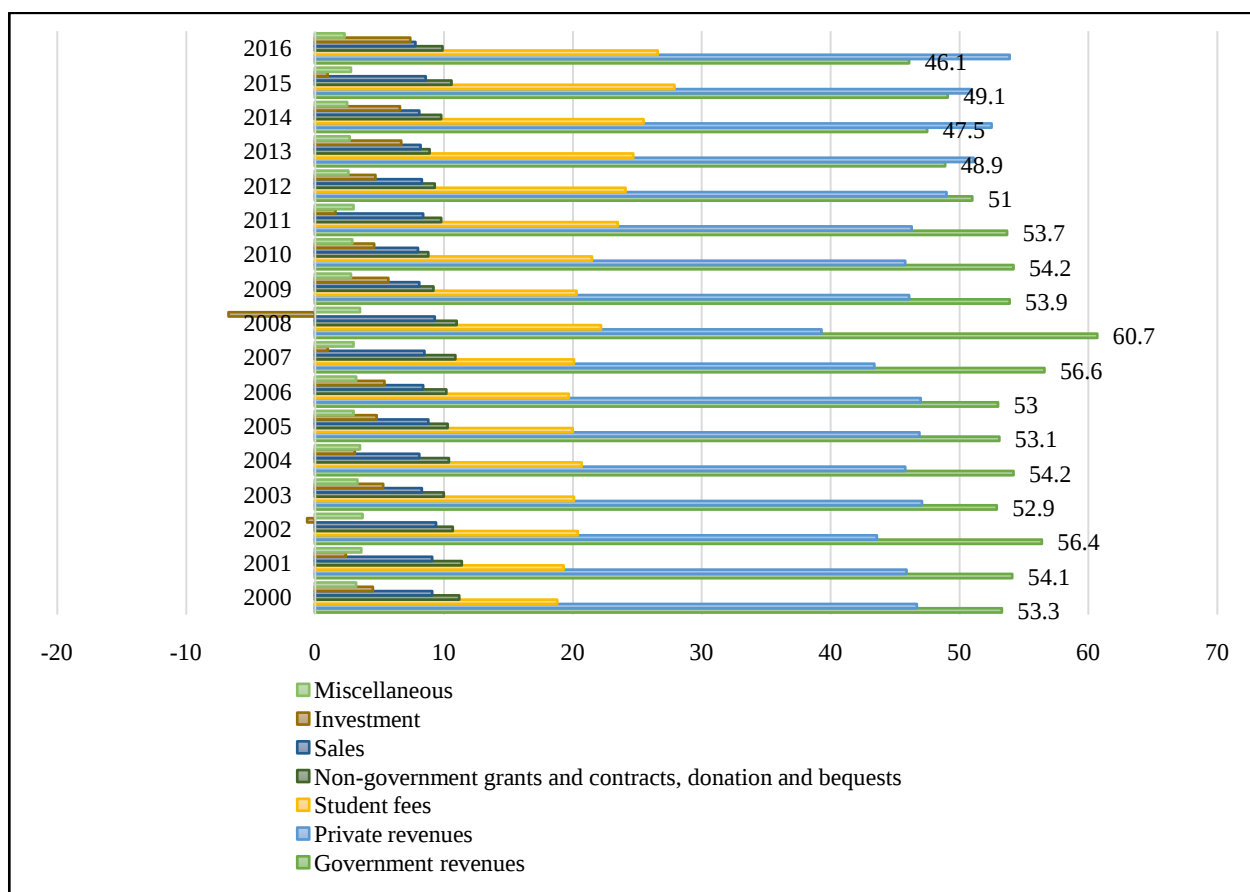


Figure 5. University Revenues by source, as a percentage of total revenue, Canada.

(Source: Statistics Canada. Table 37-10-0110-01).

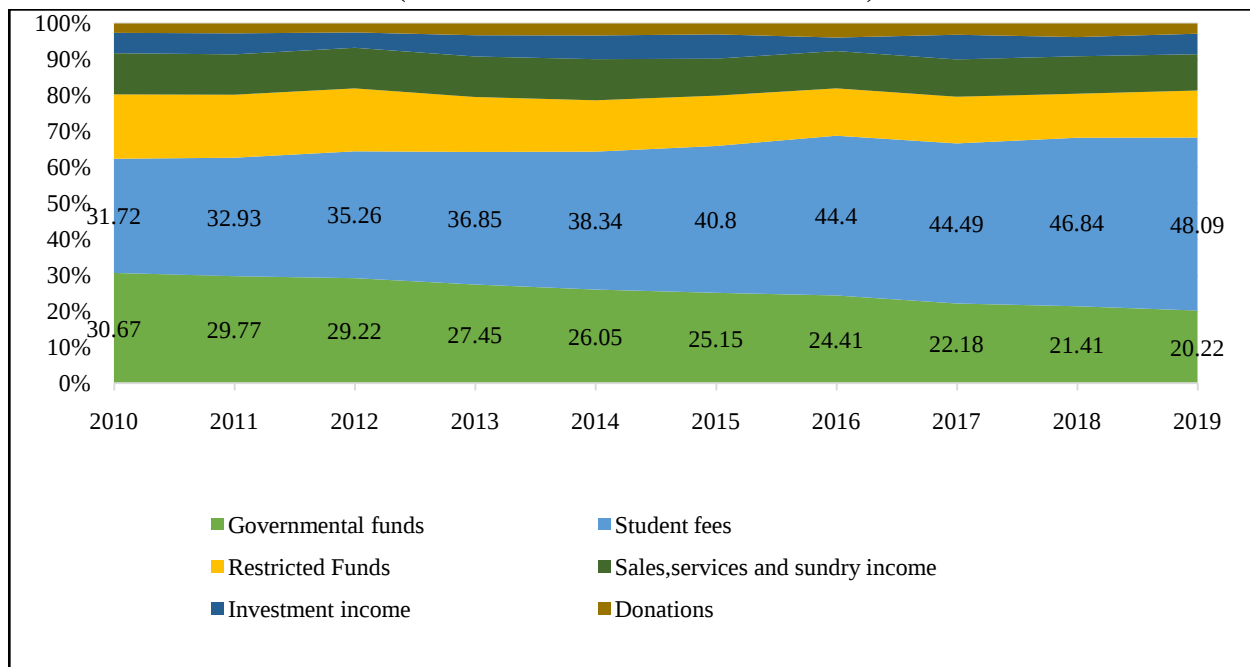


Figure 6. Change of revenue composition, percentage, U of T, 2010-2019.

(Source: U of T, Facts and Figures, 2010-2019).

Resource Dependency—Market

Market as a stakeholder has displayed its impact ubiquitously in Canadian higher education on competition. Schuetze and the research team (2012) confirmed the financial priority among provincial higher education reforms. Ontario is no exception in financially relying on international students. Van Vught (2008) proposed that “in order to survive, higher education organizations need to secure a continuous and sufficient supply of resources from their environments” (p. 159). Resource dependency theory argues that institutions will compete for limited resources and innovate themselves to improve their competitiveness. It is the same case with U of T that it continues to diversify the number and types of programs it can offer to attract and retain the most lucrative customers—international students. In U of T, Scarborough, a campus with high proportion of international students, there appears significant positive correlation between the proportion of international students and increase of combined programs.

International students are valuable customers when education has become commercial services. “Global academic competition is making free movement of people and ideas, on the basis of merit, with enormously positive consequences for individuals, for universities, and for nations” (Wildavsky, 2010, p. 7). Economically, international students are undoubtedly inestimable assets for receiving countries as potential “clients” and purchasers of the education service industry (Geddie, 2015). International education has become a lucrative service industry in Canada that it contributes over 10 billion Canadian dollars to the economy which exceeds wheat and soft lumber (Zilio & Chiose, 2016). “In 2018, international students in Canada contributed an estimated \$21.6 billion to Canada’s GDP and in 2016 supported almost 170,000 jobs for Canada’s middle class.” (Government of Canada, 2019, p. i). Tuition fees for international students are overly higher for domestic students (U of T, 2019, Facts and Figures). Taking tuition fees in B.A. for example, domestic students have afforded almost unchanged tuition fees for the last decade. However, it costs four times for international student to earn the same degree. The gap between their costs for it has been widening from 2,0376 CAD in 2000 to 4,7190 CAD in 2019.

Empirically, U of T has changed its revenue proportion with student fees’ roaring to almost 50%. Revenues in student fees are majorly contributed by the expansion of international student enrollment, which can explain the increasing number of programs, especially combined programs and the appearance of new types of programs since 2016. “It has been argued that making tuition fees the major source of post-secondary funding would make universities and colleges more responsive to student needs and work to provide better quality programs as they compete for student revenue” (Beach, Boadway, & McInnis, 2004, p. 6). Therefore, when international student accounts more for the finance, they account for more programs.

Abnormalities

Two seeming abnormalities appear in the empirical results. Why the number of fields of study stay stable for the last decade may be a result of strong academic tradition that the faculty arrangements would not change at random and the needs of international students for more refined fields of study are extremely trivial because most of them crave for fitting in the existing ones. If they could not locate satisfactory fields of study for themselves, they would not choose to go abroad at the very first place. As for why St. George and Mississauga fail to witness such a correlation, the author’s assumption is based on academic tradition that St. George enjoys a longer history than the other two campuses, which means larger influence from academic norms and

traditions. So, despite astonishing proportion of international students in these two campuses, not much growth in the number of programs. These two abnormalities of the research results are beyond the theoretical framework of the author's choice, which may merit more relevant researches on academic norms and programmatic diversity in the future. So, this paper will no longer elaborate on it.

Conclusions

Higher education institutions and systems worldwide have been rapidly transformed due to evolving economic, cultural, and political realities. Holistic and general academic learning depicted in the Humboldt model was supplanted by the steering towards research and innovation in the era of knowledge economy. International students have become resources that HEIs compete for when their enrollment proportion expands hastily. Diversification is one of the most striking phenomena along with internationalization in higher education. Programmatic diversity is a key strategy for universities which are teeming with international students to realize comprehensive internationalization. Whether expansion of international student enrollment actually accounts for programmatic diversification merits empirical tests and how diversification comes into reality requires careful and comprehensive investigation.

By combining internationalization analytical framework and organizational theory, five relevant hypotheses have been thoroughly proposed, waiting to be testified in empirical studies. Bearing hypothesis-testing in mind, this paper has chosen case study as the methodology to address research questions. This paper refers to multiple sources of data and "follow the derivation of any evidence, ranging from initial research questions to ultimate case study conclusions" (Yin, 2002, p. 83). Canada is a rising star for recruiting and retaining international students and U of T is selected as the most likely case for testifying five theory-based hypotheses. It is viable and advisable to measure programmatic diversity in one HEI. Gerring (2007) argued that if theory is capable of yielding precise predictions and the case study can maximize the leverage of the theory, they provide "the strongest sort of evidence possible in a non-experimental, single-case study" (p. 115).

Correlation tests and their significant results showcase the sure existence of programmatic diversity and diversification in U of T in the last decade. Three out of five hypotheses have been proven basically correct. When the number and types of program present obvious growth despite unchanged number of fields of study, programmatic diversification indeed has taken place in the most internationalized university in Canada. Consistent with Hypothesis 2, when government funding accounts for less proportion in total revenues, it matters trivially to the expansion of university programs. Positive correlation exists between international student enrollment proportion and the proportion of tuition fees in revenues, as well as the number of programs, testifying that international students have economically influenced programmatic diversity as soaring student fees has become the largest resource of university revenues. However, no significant correlation was concluded in terms of expansion enrollment of international students in entire student population and the number of fields of study. Likewise, programmatic diversity in different campuses is not totally congruent with the distribution and congregation of international students, somehow making Hypothesis 5 inconsistent.

In order to explain the dynamic of programmatic diversity in HEIs in the era of internationalization, this paper draws on internationalization framework and organizational theory. Institution itself, government, and market are three equally powerful actors when discussing the effects and practice of internationalization in higher education. Taking the stance of the institution itself, U of T as the most prestigious university of Canada

and a rather influential research university in the world, its institutional status nationwide and worldwide makes it welcome internationalization and diversify programs for international students. From the prospective of governmental leverage, MTCU set the direction of innovation and diversification for Ontario universities. The obedience of governmental policies can explain why the number of programs has grown significantly in spite of the weight of governmental funds in U of T has been dropping. Resource dependency theory is another column of theoretical framework. It stresses the core belief of competition for limited resources. Higher education in Canada has developed into a consumer market in which satisfying the needs of international students has been the priority for universities receiving large amount of them. Hence, programmatic diversification, especially the roaring number of combined programs in the U of T is the results of catering to consumer market needs.

To sum up, the preliminary results conclude that (a) HEIs with high institutional status tend to diversify themselves in programs; (b) international students influence the number of programs through tuition fees and their revenue composition; (c) in campuses where more international students are enrolled, more programs are correlatedly designed. This paper can provide some knowledge for Chinese HEIs when managing international student affairs and pursuing internationalization, especially when China received approximate half a million inbound students in 2019. Though the percentage of international students in total Chinese higher education system is only 1.2% which is far less than Australia's 28% and Canada's 21.4%, China faces stern challenges of integrating international students in local campuses and improving the education quality when joining the global competition for international talents. So, experiences of Canada's most famous university in programmatic diversity can be of great value for China to improve its own system thereby its competitiveness in internationalization.

References

- Alger, J. R. (1997). The Educational Value of Diversity. *Academe*, 83(1), 20-23. doi: 10.2307/40251558.
- Bartell, M. (2003). Internationalization of Universities: A University Culture-Based Framework. *Higher Education*, 45(1), 43-70. doi: 10.1023/A:1021225514599.
- Bastedo, M. N., & Bowman, N. A. (2011). College Rankings as an Interorganizational Dependency: Establishing the Foundation for Strategic and Institutional Accounts. *Research in Higher Education*, 52(1), 3-23. doi: 10.1007/s11162-010-9185-0.
- Beach, C. M., Boadway, R. W., & McInnis, R. M. (2004). *Introduction in Higher Education in Canada* (pp. 1-26), edited by Charles M. Beach, Robin W. W. Boadway and R. Marvin McInnis. Montreal & Kingston: John Deutsch Institute for the Study of Economic Policy, Queen's University.
- Berrey, E. C. (2011). Why Diversity Became Orthodox in Higher Education, and How it Changed the Meaning of Race on Campus. *Critical Sociology*, 37(5), 573-596. doi:10.1177/0896920510380069.
- Bhandari, R., Robles, C., & Farrugia, C. (2018). *International Higher Education Shifting Mobilities, Policy Challenges and New Initiatives*. Background Paper for Global Education Monitoring Report.
- Birnbaum, R. (1983). *Maintaining Diversity in Higher Education*. San Francisco: Jossey-Bass.
- Bouchard St-Amant, P. A., Brabant, A. N., & Germain, É. (2020). University Funding Formulas: An Analysis of the Québec Reforms and Incentives. *Canadian Journal of Higher Education/Revue canadienne d'enseignementsupérieur*, 50(1), 1-27.
- Buzzelli, M. D., & Allison, D. J. (2017). Proposed Strategic Mandates for Ontario Universities: An Organizational Theory Perspective. *Canadian Journal of Higher Education/Revue canadienne d'enseignementsupérieur*, 47(3), 170-191.
- Cerna, L. (2014). *The Internationalisation of Higher Education: Three European Universities in Comparative Perspective*. Oxford, UK: Centre on Migration, Policy and Society. Working Paper No. 114.
- Clark, B. R. (1983). The Higher Education System. doi:10.1525/9780520340725.
- Cohen, A., Yemini, M., & Sadeh, E. (2014). Web-Based Analysis of Internationalization in Israeli Teaching Colleges. *Journal of Studies in International Education*, 18(1), 23-44. doi:10.1177/1028315313479131.
- Council of Ministers of Education, Canada (CMEC). Retrieved from <https://www.cmec.ca/299/education-in-canada-an-overview/index.html>

- De Wit, H., & Altbach, P. (2020). Internationalization in Higher Education: Global Trends and Recommendations for Its Future. *Policy Reviews in Higher Education*. doi: 10.1080/23322969.2020.1820898.
- Erhardt, D., & Von Kotzebue, A. (2016). Competition Unleashed: Horizontal Differentiation in German Higher Education. *Tertiary Education and Management*, 22(4), 333-358. doi:10.1080/13583883.2016.1233993.
- Fallis, G. (2013). *Rethinking Higher Education: Participation, Research & Differentiation*. Montreal: McGill-Queen's University Press.
- Frølich, N., & Stensaker, B. (2010). Student Recruitment Strategies in Higher Education: Promoting Excellence and Diversity? *International Journal of Educational Management*, 24(4), 359-370. doi: 10.1108/09513541011045281.
- Fumasoli, T. (2011). Strategy as Evolutionary Path. Five Higher Education Institutions on the Move. Ph.D. Thesis. USI, Lugano.
- Fumasoli, T., & Huisman, J. (2013). Strategic Agency and System Diversity: Conceptualizing Institutional Positioning in Higher Education. *Minerva*, 51(2), 155-169.
- Geddie, K. (2015). Policy Mobilities in the Race for Talent: Competitive State Strategies in International Student Mobility. *Transactions of the Institute of British Geographers*, 40(2), 235-248. doi:10.1111/tran.12072.
- Gerring, J. (2007). The Case Study: What It Is and What It Does. In *The Oxford Handbook of Comparative Politics*.
- Goglio, V., & Regini, M. (2017). Processes and Stages of Differentiation in European Higher Education. *Higher Education Quarterly*, 71(4), 320-337. doi:10.1111/hequ.12133.
- Government of Canada. (2019). Building on Success: International Education Strategy 2019-2024. Retrieved from <https://www.international.gc.ca/education/assets/pdfs/ies-sei/Building-on-Success-International-Education-Strategy-2019-2024.pdf>
- Guri-Rosenblit, S., Šebková, H., & Teichler, U. (2007). Massification and Diversity of Higher Education Systems: Interplay of Complex Dimensions. *Higher Education Policy*, 20(4), 373-389.
- Hannan, M. T., & Freeman, J. (1989). *Organizational Ecology*. Cambridge: Harvard University Press.
- Heydinger, R. B. (1994). A Reinvented Model for Higher Education. *On the Horizon: The Environmental Scanning Newsletter for Leaders in Education*, 3(1), 1-5.
- Howley, C., & Sturges, K. M. (2018). Building Capacity in State Education Agencies: Using Organizational Theory to Guide Technical Assistance. *Journal of Organizational Theory in Education*, 3(1), 1-19.
- Hudzik, J. K. (2011). *Comprehensive Internationalization: From Concept to Action* (p. 44). Washington, DC: NAFSA: Association of International Educators.
- Huisman, J. (2009). Governing European Higher Education. In *Globalization's Muse: Universities and Higher Education Systems in a Changing World*, edited by J. Douglass, C. King, and I. Feller. Berkeley, CA: Berkley Public Policy Press.
- Huisman, J., Lepori, B., Seeber, M., Frølich, N., & Scordato, L. (2015). Measuring Institutional Diversity Across Higher Education Systems. *Research Evaluation*, 24(4), 369-379. doi:10.1093/reseval/rvv021.
- Knight, J. (2004). Internationalization Remodeled: Definition, Approaches, and Rationales. *Journal of Studies in International Education*, 8(1), 5-31. doi:10.1177/1028315303260832.
- Knight, J. (2011). Higher Education Crossing Borders: A Framework and Overview of New Developments and Issues. In *Cross-Border Partnerships in Higher Education: Strategies and Issues* (pp. 16-41), edited by R. Sakamoto, and D. Chapman. New York, NY: Routledge.
- Kuh, G. D. (2003). Organizational Theory. In *Student Services: A Handbook for the Profession 4* (pp. 269-296), edited by Susan R. Komives, and Dudley B. Woodard, Jr.
- Labaree, D. F. (2012). *Someone Has to Fail: The Zero-Sum Game of Public Schooling*. Cambridge, MA: Harvard University Press.
- Lang, D. (2015). Clark's Triangle and Fiscal Incentives: Implications for Colleges. *College Quarterly*, 18(3): 1-17. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1087344.pdf>
- Leonardo, Z. (2013). The Story of Schooling: Critical Race Theory and the Educational Racial Contract. *Discourse: Studies in the Cultural Politics of Education*, 34(4), 599-610.
- Levy, J. S. (2008). Case Studies: Types, Designs, and Logics of Inference. *Conflict Management and Peace Science*, 25(1), 1-18.
- Lindsay, B. (1990). Educational Equity in Cross-National Settings. In *International Comparative Education: Practices, Issues & Prospects* (pp. 197-224), edited by Thomas, R. M. Oxford: Pergamon Press.
- Louis, C., Keith, M., & Lawrence, M. (2000). *Case Studies Research Methods in Education* (5th ed., pp. 181-190). London and New York: Routledge Falmer.
- Maassen, P. A. M., & Potman, H. P. (1990). Strategic Decision Making in Higher Education, an Analysis of the New Planning System in Dutch Higher Education. *Higher Education*, 20, 393-410. doi:10.1007/BF00136220.

- Marshall, D. (2008). Differentiation by Degrees: System Design and the Changing Undergraduate Environment in Canada. *Canadian Journal of Higher Education*, 38(3), 1-20.
- McCaig, C. (2011). Trajectories of Higher Education System Differentiation: Structural Policymaking and the Impact of Tuition Fees in England and Australia. *Journal of Education and Work*, 24(1-2), 7-25.
- Merriam, S. B. (1998). *Qualitative Research and Case Study Applications in Education*. San Francisco: Jossey-Bass Publishers.
- Milian, P., & Hicks, M. (2014). *Ontario Private Career Colleges: An Exploratory Analysis*. Toronto, ON: Higher Education Quality Council of Ontario.
- Milian, R. P., Davies, S., & Zarifa, D. (2016). Barriers to Differentiation: Applying Organizational Studies to Ontario Higher Education. *Canadian Journal of Higher Education*, 46(1), 19-37.
- Mitchell, D. E., & Nielsen, S. Y. (2016). Internationalization and Globalization in Higher Education. In *Globalization—Education and Management Agendas* (p. 322), edited by H. Cuadra-Montiel. Rijeka: InTech. Retrieved from <http://cdn.intechopen.com/pdfs-wm/38270.pdf>
- Morphew, C. C. (2006). Conceptualizing Change in the Institutional Diversity of US Colleges and Universities. Mimeo, Institute of Higher Education, University of Georgia.
- Mosneaga, A., & Agergaard, J. (2012). Agents of Internationalisation? Danish Universities' Practices for Attracting International Students. *Globalisation, Societies and Education*, 10(4), 519-538.
- National Association for Foreign Student Advisers (NAFSA). (2019). Losing Talent: An Economic and Foreign Policy Risk America Can't Ignore.
- Ninomiya, A., Knight, J., & Watanabe, A. (2009). The Past, Present, and Future of Internationalization in Japan. *Journal of Studies in International Education*, 13(2), 117-124. doi:10.1177/1028315308331095.
- OECD. (2020). *Education at a Glance 2020: OECD Indicators*. Paris: OECD Publishing. doi: 10.1787/69096873-en.
- Ontario (Province of) (2012a). Strengthening Ontario's Centres of Creativity, Innovation and Knowledge. Toronto, ON: Ministry of Training, Colleges and Universities.
- Ontario (Province of) (2012b). Commission on the Reform of Ontario's Public Services. Toronto, ON: Queen's Printer. McCaig, Colin.
- Powell, K. K., & Rey, M. P. (2015). Exploring a Resource Dependency Perspective as an Organizational Strategy for Building Resource Capacity: Implications for Public Higher Education Universities. *Management in Education*, 29(3), 94-99. doi:10.1177/0892020615586805.
- Praphamontipong, P. (2010). Intra-Sectoral Diversity: A Political Economy of Thai Private Higher Education.
- Project Atlas. (2019). 2019 Project Atlas Infographs. Retrieved from <https://www.iie.org/en/Research-and-Insights/Project-Atlas/Explore-Data/Infographics/2019-Project-Atlas-Infographics>
- Reichert, S. (2009). Institutional Diversity in European Higher Education. Tensions and Challenges for Policy Makers and Institutional Leaders. European University Association.
- Rhoades, G. (1990). Political Competition and Differentiation in Higher Education. In *Differentiation Theory and Social Change* (pp. 187-221), edited by J. C. Alexander and P. Colony. New York: Columbia University Press.
- Rossi, R. (2009). Increased Competition and Diversity in Higher Education: An Empirical Analysis of the Italian University System. *Higher Education Policy*, 22(4), 1-25.
- Rossi, R. (2010). Massification, Competition and Organizational Diversity in Higher Education: Evidence from Italy. *Stud. High. Educ.*, 35(3), 277-300.
- Rumbley, L. E. (2010). Internationalization in the Universities of Spain: Changes and Challenges at Four Institutions. In *Globalization and Internationalization in Higher Education: Theoretical, Strategic and Management Perspectives*, edited by F. Maringe and N. Fokkett. London: Continuum International Publishing Group.
- Salini, S., & Turri, M. (2016). How to Measure Institutional Diversity in Higher Education Using Revenue Data. *Quality & Quantity*, 50(3), 1165-1183. doi:10.1007/s11135-015-0196-y.
- Schuetze, H. G., Bruneau, W., & Grosjean, G. (Eds.). (2012). *University Governance and Reform: Policy, Fads, and Experience in International Perspective*. Series: International and Development Education. New York; Basingstoke: Palgrave Macmillan.
- Siczek, M. M. (2015). Developing Global Competency in US Higher Education: Contributions of International Students. *CATESOL Journal*, 27(2), 5-21.
- Skolnik, M. L. (1986). Diversity in Higher Education: The Canadian Case. *Higher Education in Europe*, 11(2): 19-32. doi:10.1080/0379772860110205.

- Skolnik, M. L. (2013). An Historical Perspective on the Idea of Institutional Diversity and Differentiation in Ontario Higher Education. *College Quarterly*, 16(2), n2.
- Snilstveit, B., Oliver, S., & Vojtkova, M. (2012). Narrative Approaches to Systematic Review and Synthesis of Evidence for International Development Policy and Practice. *Journal of Development Effectiveness*, 4(3), 409-429. doi:10.1080/19439342.2012.710641.
- Stevens, M. (2007). *Creating a Class: College Admissions and the Education of Elites*. Cambridge, MA: Harvard University Press.
- Teixeira, P. N., Rocha, V., Biscaia, R., & Cardoso, M. F. (2012). Competition and Diversity in Higher Education: An Empirical Approach to Specialization Patterns of Portuguese Institutions. *Higher Education*, 63(3), 337-352.
- University of Toronto. (2010). Facts and Figures 2010.
- University of Toronto. (2011). Facts and Figures 2011.
- University of Toronto. (2012). Facts and Figures 2012.
- University of Toronto. (2013). Facts and Figures 2013.
- University of Toronto. (2014). Facts and Figures 2014.
- University of Toronto. (2015). Facts and Figures 2015.
- University of Toronto. (2016). Facts and Figures 2016.
- University of Toronto. (2017). 2017-2022 International Strategic Plan (pp. 1-7).
- University of Toronto. (2017). Facts and Figures 2017.
- University of Toronto. (2018). Annual report of the Vice-President, International.
- University of Toronto. (2018). Facts and Figures 2018.
- University of Toronto. (2019). Annual report of the Vice-President, International.
- University of Toronto. (2019). Facts and Figures 2019.
- Van Vught, F. (2008). Mission Diversity and Reputation in Higher Education. *Higher Education Policy*, 21, 151-174. doi:10.1057/hep.2008.5.
- Widiputera, F., Witte, K. D., Groot, W., & Brink, H. M. (2017). Measuring Diversity in Higher Education Institutions: A Review of Literature and Empirical Approaches. *IAFOR Journal of Education*, 5(1). doi:10.22492/ije.5.1.03.
- Wildavsky, B. (2010). *The Great Brain Race: How Global Universities are Reshaping the World*. Princeton, NJ: Princeton University Press.
- Yang, C. C. (2010). College Access, Equity, and Student Success in the Context of Higher Education Expansion and Differentiation in Taiwan. Ph.D. Thesis, The University of California, Los Angeles (UCLA).
- Yazan, B. (2015). Three Approaches to Case Study Methods in Education: Yin, Merriam, and Stake. *The Qualitative Report*, 20(2), 134-152. Retrieved from <http://www.nova.edu/ssss/QR/QR20/2/yazan1.pdf>
- Yin, R. K. (2002). *Case Study Research: Design and Methods*. Thousand Oaks, CA: SAGE Publications.
- Zha, Q. (2009). Diversification or Homogenization: How Governments and Markets Have Combined to (Re)shape Chinese Higher Education in Its Recent Massification Process. *Higher Education*, 58(1), 41-58.
- Zilio, M., & Chiose, S. (2016). Ottawa Looks to Ease International Students' Path to Permanent Residency. *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/news/politics/ottawa-looks-to-easeinternational-students-path-to-permanent-residency/article29242266/>
- Zolfaghari, A. (2009). Internationalization: Challenges, Strategies, Policies and Programs. *US-China Education Review*, 6(5), 1-9.