

Chapter 5

What Are the Challenges for Building World Class Universities in Taiwan? Assessing Taiwan's Excellence Initiatives Since 2005



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Abstract In response to the problem of building a world class university efficiently, several Asian nations chose to invest in the development of research universities and centers to increase their volume of research output, and subsequently move up the global rankings. Taiwan was no exception. From 2005 to 2016, the Taiwanese government launched various types of excellence initiatives with different objectives, including three big projects: Development Plan for World Class Universities and Research Centers of Excellence, Teaching Excellence Initiative, and Academia-Industry Collaboration. Beginning in 2017, the Ministry of Education introduced a new direction in higher education policy by launching a new excellence initiative, the Higher Education Sprout Project. It concentrates on “University social responsibility and accountability” instead of solely the pursuit of academic excellence. This chapter analyzes the development and impacts of Taiwan’s Excellence Initiatives from 2005 to 2016. It then presents and discusses the 2017 Higher Education Sprout Project. The relationship between building world class universities and excellence initiatives and the associated challenges are examined in the conclusion section of the paper.

Keywords Excellence Initiatives · World Class University · Global competitiveness

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5.1 Introduction

Over the past decade, the term “world class” has been used widely to describe how a university develops its capacity to compete in the global higher education marketplace. With the growth of competition between nations in knowledge-based economies, the creation of world class universities has become a national agenda matter in developing, as well as developed countries in Asia and other regions. Consequently, policymakers believed that “building research universities would help their countries obtain a superior position in the global competition,” particularly in the Asian region (Shin, 2009, p. 669). Marginson (2011) indicated that accelerated public investment in research and “world class universities” has forged a unique culture which he called the “Confucian Model” in the region.

In order to build at least one, or indeed, several world class universities, Asian nations began to invest in research universities and centers to increase their volume of research output in order to move up the global rankings (Marginson, 2011; Shin, 2009). Several excellence programs were subsequently created in Asia prior to 2000: in 1998 China approved a special funding program to build research universities as part of its 985 project; the South Korean government supported the 1999 Brain Korea 21 (BK 21) program; and in 2001, the Japanese government established a plan to foster around 30 universities to become “world class” institutions (Lo, 2019; Yonezawa & Hou, 2014). Similarly, the Taiwanese government launched Five Year—50 Billion Excellence Initiative in 2005 to build at least one university that would be in the world’s top 100 within five years, and to have at least 15 key departments or cross-campus research centers as the top in Asia within ten years in Taiwan (Department of Higher Education, 2011).

Pressured by global competitiveness in higher education, the Taiwanese government began reforming its higher education system in the late 1990 s, with a particular focus on provision, regulation, and financing (Hou, 2011). In 2002, the Taiwan government founded the Higher Education Macro Planning Commission (HEMPC) with the aim of promoting the country’s higher education excellence. In 2003, HEMPC proposed a national plan in support of a number of selected universities and research centers through concentrated investment. Meanwhile, the Ministry of Education (MOE) launched various excellence initiatives with different objectives from 2005 to 2016, including Development Plan for World Class Universities and Research Centers of Excellence (hereafter the Excellence Program), Teaching Excellence Initiative, and Academia-Industry Collaboration (Hou, 2012).

During the new phase of excellence initiatives in 2017, the MOE launched the Higher Education Sprout Project, focusing on “university social responsibility and accountability.” The new initiative aims to “comprehensively enhance the quality of universities and promote the diversification of higher education so as to secure students’ equal right to education.” In addition, it aims to reinforce international competitiveness through facilitating universities to achieve world class status and developing cutting-edge research centers in cooperation with the Ministry of Science and Technology (MOE, 2018, p. 1).

This chapter analyzes the development and impacts of Taiwan Excellence Initiatives from 2005 to 2016. The 2017 Higher Education Sprout Project is then presented and discussed. The relationship between building world class universities and excellence initiatives and challenges created are examined in the conclusion section of the paper.

5.2 Examining the Relationship Between Building World Class Universities and Launching Excellence Initiatives

Since 2000, the intensification of global competition in higher education has been highlighted in the literature, which has drawn great attention from governments and academics. In this regard, building world class universities was widely considered a national strategy to not only respond to global challenges but also to enhance international competitiveness. What does a world class university look like? In basic terms, world class universities are top research universities striving for excellence. This means that “its quality must surpass the expectation of their various stakeholders” (De Maret, 2007, p. 33). Altbach (2007) describes world class universities in a more specific way, indicating that the key elements of a world class university should include excellence in research, top professors, academic freedom, governance, adequate facilities, funding. Feng (2007) states that there are two generic features for a world class university: presidential leadership and producing graduates with global citizenship. The former Tertiary Education Coordinator at the World Bank, Jamil Salmi (2009), defined a world class university as having three major indispensable components: 1. a high concentration of talent including excellent faculty and brilliant students; 2. abundant resources to offer a rich learning environment and conduct advanced research; and 3. favorable governance features that encourage strategic vision, innovation and flexibility, and which enable institutions to make decisions and manage resources without being encumbered by bureaucracy. Shin and Kehm (2013) characterized world class universities by analyzing the top 200 globally ranked universities. These were found to be research productive related, as well as attracting internationally renowned professors and talented students. Heyneman and Lee (2013) specifically identified that a world class university should have at least 20–40% foreign faculty members, and 10–20% international students. Annually, each faculty contributes six papers on average. Student tuitions represent less than 25% of the total income. In practice, Salmi (2009) concluded that generally, most nations would adopt one of three major strategies for establishing world class universities: upgrading a small number of existing universities; merging existing institutions into a new university; or creating a new one. Marginson (2011) specifically proposed that the establishment of a world class university undergoes three phases: developing international capacity; building global connectedness; and engaging administrators, faculty and staff in global activities.

Table 5.1 Geographical allocation of excellence initiatives by regions

Region	1989–2004		2005–2016	
Africa	–	0	Nigeria	1
Asia	Australia, China, Hong Kong, Japan, New Zealand, South Korea	8	China, India, Japan, Malaysia, Singapore, South Korea, Taiwan, Thailand	14
Europe	Denmark, Finland, Ireland, Norway	4	Denmark, France, Germany, Luxembourg, Norway, Poland, Russian Federation, Slovenia, Spain, Sweden	19
Middle East	–	0	Israel, Saudi Arabia	2
North America	Canada	1	Canada	1

Source Salmi (2015a)

The literature highlights that there is a strong association between building world class universities and national policy in higher education excellence initiatives. Excellence initiatives were adopted as a national strategy to restructure higher education landscape and enhance international competitiveness, particularly in many non-English speaking countries, including Germany, France, and Asian nations (Shin & Kehm, 2013). Meanwhile, when the establishment of world class universities becomes part of the national agenda, excellence initiatives are implemented in an effort to achieve world class status (Yonezawa & Hou, 2014). According to Salmi (2015a), the number of national excellence initiatives in Asia was only eight before 2004. Up to 2016, there were 14 excellence programs in China, India, Japan, Malaysia, Singapore, South Korea, Taiwan, and Thailand. In addition, the number of excellence initiatives in Europe had increased rapidly over a decade (Table 5.1).

Most excellence initiatives adopted “selection and concentration” policies with regard to public investment in higher education. Investment under the principle of selection and concentration as an antonym of piecemeal or incremental is a term used frequently in public administration and business management, and is recognized as an adequate approach in the more severe competition of the global age. On the other hand, selection and concentration also means the actual reallocation of resources through drastic cuts to public expenditure in other existing budgetary items (Yonezawa & Hou, 2014; Salmi, 2016). With selection and concentration policies, elitist universities are able to boost research productivities, attract talented scholars, recruit international students, and provide more English taught programs.

Kehm (2013) indicates that world class universities, with the support of excellence initiatives, would likely contribute positively toward higher education systems by creating an injection of external resources into higher education as a whole, and through increased effective governance and innovation in teaching and learning via a concentrated funding policy. Most importantly, it was believed that the reputation of higher education as a whole would be promoted and recognized worldwide. Although it is not easy to measure the effectiveness and impact of excellence initiatives on the selected universities (Salmi, 2016), some of the literature provides critical reflections

on the elitist university making policy. Due to the fact that concentrating resources in a few selected universities would “lead to a neglect of the ordinary universities” (Cremonini et al., 2013, p. 101), Salmi (2016) notes that “policy makers and university leaders must keep in mind the risk of harmful effects on teaching and learning quality because of the research emphasis of most excellence initiatives” (p. 18). As J. Lo (2019) states, the process of building world class universities has resulted in a strong tendency toward homogenization under the influence of Western hegemony, as well as the weak connection between universities and local communities in pursuit of academic excellence. In fact, there has been continuous debate over the effect of these policies and on the performance of the recipients of this concentrated funding within each nation.

Despite these issues, Asian nations—particularly China, South Korea, Japan, and Taiwan—still hope that the selection and concentration policy will have the same result for them as it has had for the US and the UK. In general, the Asian nations have aimed at building world class universities, attracting more international talent, and enhancing the reputation of their higher education system, as well as developing global competitiveness (Table 5.2).

5.3 Development of Excellence Initiatives in Taiwan Higher Education from 2005 to 2016: Were World Class Universities Being Built?

With the selection and concentration policy, the MOE launched three main excellence projects based on the mission and objectives: the Development Plan for World Class Universities and Research Centers of Excellence (2005–2016); the Teaching Excellence Initiative (2005–2016); and the Technological University Paradigms (2013) (Authors, 2012; Department of Higher Education, 2011).

5.3.1 Development Plan for World Class Universities and Research Centers of Excellence (2005–2016)

In its quest for a world class university, the Taiwanese government launched the Development Plan for World Class Universities and Research Centers of Excellence in 2005. As indicated in the previous section, the program aimed to develop at least one university that would be one of the world’s top 100 universities after five years, and at least 15 key departments or cross-campus research centers as the top in Asia in ten years. The second phase from 2011 to 2016 changed the program’s name to Aim for the Top University Project ~~Moving into Top Universities Program~~, and continued the aim of building a world class university based on the achievements of the first phase. It set five specific goals, including internationalizing top universities and

Table 5.2 Comparison of excellence programs in China, South Korea, Japan, and Taiwan by 2015

	China 985	Korean Brain 21	Japanese COE and Global 30	Taiwan 5 year 50 Billion
Starting year	Phase one: 1998–2003 Phase two: 2004–2007	Phase one: 1999–2005 Phase two: 2006–2012 (7 years)	COE: 2002–2007 Global 30: 2008–	Phase one: Five-year 50 Billion Program: 2006–2010 Phase two (Aiming for the Top University Project): 2011–2015
Goal and mission	Developing 10 Chinese universities to global rankings	Cultivating global leaders	Recruiting 300,000 international students	Developing at least one university as one of the world's top 100 universities in five years and 10 fields or research centers as "world class"
Focus	Research/international reputation	Ph.D. programs/future leaders	Internationalization/economic growth	Research/international reputation
Number of recipients	39–49 universities	67 universities	19–30 universities	11–12 universities
Total funding	US\$5 billion	US\$3.5 billion	US\$2.5 billion	US\$1.67 billion

Source: By author

broadening students' global perspectives, promoting universities' research and innovation quality, building international capacity of faculties and students, strengthening collaboration between universities and industry, and enhancing graduates' competence in response to social and market demands (Department of Higher Education, 2011).

At the initial stage, all universities and colleges were equally encouraged to apply for the Excellence Program, although they had to meet the basic requirement of at least USD10,000 expenditure per student first. However, in order to promote two major national policies of National University Corporation and institutional mergers, public university applicants had to promise that they would incorporate themselves as an autonomous institution and develop their own educational initiatives. They were also required to make a separate proposal as supplements. Institutions, whether public or private universities, that were willing to merge together to strengthen their global edge were advised to make a strategic plan to realize their ambition.

Considering the universities' complaints, the MOE did not adopt incorporation and merger as requirements in the second phase, but new applicants had to meet three of the following criteria: 85% of teaching faculty members above assistant professor level; a student/faculty ratio below 25:1; total number of citations over the last 11 years in the international top 1%; 90% of programs accredited or recipients of the Teaching Excellence Program (Department of Higher Education, 2011). Generally speaking, in addition to the goal of topping world rankings, recipient universities in the Research excellence program were also expected to "develop more international counterparts, broaden the global outlook of faculty members and students, and better meet the needs of the local industry by turning themselves into an R&D hub that excels in both academic research and practical applications" (Department of Higher Education, 2013, p. 27).

Twelve universities received a grant in the first phase from 2006 to 2010. National Taiwan University received \$500 million, up to 30% of the total funds available, compared to National Cheng Kung University with 17%, National Tsing Hua University with 11.2%, and National Chiao Tung University with 8.6%. Five recipients were funded with less than 5% of the total. Only two private universities were funded initially, but one of them was not funded after 2008 (Table 5.3).

A total number of 30 universities applied for the grant in the second phase. After careful evaluation of the quantitative and qualitative achievements of each applicant, including a meticulous assessment of its world ranking status, research and teaching quality, and effectiveness in the first phase, 12 institutions were awarded subsidies through block funding, including 11 public universities and one private university (Department of Higher Education, 2014) (Table 5.4).

Table 5.3 MOE grants received by Taiwan’s Universities in the first phase (2006–2010) (USD in million)

Institutions	2006	2007	2008	2009	2010	2006–2010 (%)	
National Taiwan University	100.0	100.0	100.0	100.0	100.0	500	30
National Cheng Kung University	56.7	56.7	56.7	56.7	56.7	283.5	17
National Tsing Hua University	33.3	33.3	40.0	40.0	40.0	186.6	11.2
National Chiao Tung University	26.7	26.7	30.0	30.0	30.0	143.4	8.6
National Central University	20.0	20.0	23.3	23.3	23.3	109.9	6.6
National Sun Yat-sen University	20.0	20.0	20.0	20.0	20.0	100	6
National Yang Ming University	16.7	16.7	16.7	16.7	16.7	83.5	5
National Chung Hsing University	13.3	13.3	15.0	15.0	15.0	71.6	4.3
National Taiwan University of Technology and Science	10.0	10.0	6.7	6.7	7.3	40.7	2.
National Cheng Chi University	6.8	10.0	6.7	6.7	6.7	36.9	2.2
Chang Gung University	10.0	10.0	6.7	6.7	6.7	40.1	2.4
Yuan Ze University	7.7	10.0	–	–	–	17.7	1.1
National Taiwan Normal University	–	–	–	–	–	0	
Total						1613.9	100

Source Department of Higher Education. (2011). *Development plan for world class universities and research centers of excellence*. Retrieved April, 2011, from http://www.edu.tw/high/itemize.aspx?itemize_sn=3520&pages=1&site_content_sn=1234

Table 5.4 MOE grants received by Taiwan's Universities in the second phase (2011–2016) (USD in million)

Institutions	2011	2012	2013	2014–2016	2011–2016 (%)	
National Taiwan University	103	103	103	206	515	32.3
National Cheng Kung University	53.3	53.3	53.3	103	262.9	16.5
National Tsing Hua University	40	40	40	82	202	12.6
National Chiao Tung University	33	33	33	68.7	167.7	10.5
National Central University	23.3	23.3	23.3	47.3	117.2	7.3
National Sun Yat-sen University	13.3	13.3	13.3	26.7	66.6	4.2
National Yang Ming University	16.7	16.7	16.7	33.3	83.4	5.2
National Chung Hsing University	10	10	10	20	50	3.1
National Taiwan University of Technology and Science	6.7	6.7	6.7	11.3	31.4	2.0
National Cheng Chi University	6.7	6.7	6.7	12.7	32.8	2.1
Chang Gung University	6.7	6.7	6.7	12.7	32.8	2.1
National Taiwan Normal University	6.7	6.7	6.7	13.3	33.4	2.1
Total					1595.2	100

Source Department of Higher Education. (2014). *Funding for 12 selected universities by Aim for the Top University Project*. Retrieved November, 2019 from https://depart.moe.edu.tw/ED2200/News_Content.aspx?n=90774906111B0527&sms=F0EAFEB716DE7FFA&s=BA25383ABEF34933

5.3.2 *Teaching Excellence Program vs. Technological University Paradigms*

In contrast to the Development Plan for World Class Universities and Research Centers of Excellence (2005–2016) project, the Teaching Excellence Program focused more on teaching quality enhancement and curriculum reform, rather than research output. The most significant difference was that it emphasized that recipients should enhance their learning and teaching infrastructure and develop their internal quality assurance mechanism through the intended learning outcomes. The MOE stated “It aims to upgrade the quality of teaching by instructors and learning by students alike” (MOE, 2013, p. 1). In the final phase (2013–2016) the recipient universities needed to strengthen curriculum contents of knowledge application in the job market—that is, universities were encouraged to integrate internship programs into curriculum design within credit system and nurture talented students in order to support national development. In total, the program was awarded to around 31–33 universities.

The other excellence initiative, the Technological University Paradigms, came later in 2013, aimed at assisting vocational education “with cultivating professionals and industry-academic cooperation and innovation R&D squarely at the center” (MOE, 2013, p. 3). The recipients were required to focus on industry-academic cooperative R&D through technology transfers. At the same time, faculty members were expected to improve teaching pedagogy to equip students with practical skills, knowledge, and employability. In addition, the recipients had to establish an incubation and innovation center in accordance with its own distinctive characteristics, which would drive the development of Taiwan local industries. From 2013 to 2016, 12 selected universities of technology were awarded with a total of USD 200 million.

In comparison, 12 selected research universities, accounting for 7.3% of all Taiwanese higher education institutions, were granted the Development Plan for World Class Universities and Research Centers of Excellence, with a total of USD 3.3 billion, compared with 31–33 teaching excellence recipients awarded USD 530 million, and 12 Technological University Paradigms with USD 200 million. The Taiwanese government allocated most resources to selected research institutions, with 85% of the total budget aimed at building several world class research universities, 4.2% for building world class universities, 1.3% for the Teaching Excellence Project, and 0.54% for Promoting Technology Excellence.

Has Taiwan actually built several world class universities with the support of excellence initiatives? From the global rankings results, the answer is yes. The data shows that there has been a significant increase in the number of top ranked 500 universities, and in the quantity and quality of research outputs from 2005 to 2016. The number of top ranked Taiwanese universities rose from five in 2005 to seven in 2006 in the Shanghai academic ranking of world universities (ARWU); from one in 2005 to 11 in 2016 in QS World University Rankings; and from four in 2010 to seven in 2016 in the Times Higher Education World University Rankings (THE). On average, there were more than seven Taiwanese universities ranked in the top

500 by 2016. Regarding research output, the total number of publications almost doubled from 16,126 in 2005 to 26,271 in 2016. Citation impact increased from 0.88 in 2005 to 0.96 in 2016 (Huang, 2019). Salmi (2016) asserts that Taiwan's excellence initiatives "have facilitated sustained investment in support of their top universities" (p. 18).

5.3.3 Universities' Responses and Societal Expectation

In spite of great achievements in research outputs, the government, as requested by the academic community, began to review the impact and effectiveness of selection and concentration policy on Taiwanese higher education (Hou, Ince, & Chiang, 2012a). A MOE report on the impacts of Research Excellence Initiative by Hou et al. (2016) showed that selected university leaders expressed their concerns over funding sustainability, unclear definition of internationalization, and limited support for research centers' operation. Most universities were worried about the problems of reliability of global rankings and the obsession with global ranking races in Taiwanese society. In addition, some evidence demonstrated that selected universities of the Research excellence program did not perform as well as expected in national accreditation, which led to increased public apprehension over the teaching quality of the selected research universities (Hou, 2011).

5.4 Higher Education Sprout Project in Search of Egalitarianism

Due to dissatisfaction with former President Ma Ying-jeou's pro-China policies, on May 20, 2016, Dr. Tsai Ing-wen, the chairman of the opposition party—the Democratic Progressive Party (DPP)—was elected as the first female President of Taiwan, and the DPP also gained a majority in the Legislative Yuan for the first time. The doctrine of egalitarianism, which emphasizes that people should be treated equally regardless of distinctions such as social class, ethnicity, and gender, was adopted by the Tsai administration in their educational policy (DDP, 2019; Zha, 2013). The problems created by excellence initiatives and a world class university building policy have been voiced again. As a result, the selection and concentration funding schemes of the former KMT government in support of world class university building were immediately overruled. The heavily debated issue of elitism versus egalitarianism led to the emergence of the Higher Education Sprout Project, which was regarded as a reflection of extremist elitism and obsessive pursuit of global rankings.

With a new focus on university social responsibility and equity in higher education accessibility, in 2017 the Tsai administration launched the five-year Higher Education Sprout Project, which is expected to cultivate a variety of high-quality talent at all levels and help universities develop their features and competitiveness. In order to achieve the above objectives, universities are encouraged to engage local communities closely in addition to striving for global outreach. In contrast to the previous two cycles of excellence initiatives for a few selected universities, the new project took an egalitarian approach and awarded a total of 156 institutions. It meant that all types of higher education providers were now eligible for government funding grants. The project is expected to accomplish four goals: implementing teaching innovation; developing universities' features and uniqueness; improving public goods; and fulfilling social responsibilities (MOE, 2017a). Likewise, the project attempts to strike a well-balanced emphasis on student teaching quality and research outputs.

The project is divided into two parts. The first part aims to improve university education comprehensively and promote higher education diversification, to secure students' right to education. The second part, named Global Taiwan, aimed at propelling universities to the sphere of excellence and building leading research centers (MOE, 2017b). Initially, all institutions were funded with a total of USD 326.7 million each year, including two subsections, USD 20.6 million at University Social Responsibility program (USR), USD 20.6 million and USD 23.97 million at Support for Underprivileged Students program respectively; the second part allocated USD 182.19 million for four selected research universities and 24 research centers. Four selected universities were selected for part two: National Taiwan University, National Cheng Kung University, National Chiao Tung University, and National Tsing Hua University (Huang, 2019). In contrast to the more than 85% of funding allocated to 12 research universities and research centers, only 35.8% is distributed to 24 research-oriented institutions (Table 5.5). In particular, the funding for National Taiwan University has dropped drastically from USD 100 million in the previous excellence initiative to USD 56.7 million in the Higher Education Sprout Project, a reduction rate of 56%.

5.5 Impact, Challenges, and Role of Government in World Class Universities Building in Taiwan

5.5.1 Global Competitiveness Is Declining Gradually

When the Tsai administration initiated a more egalitarian approach with the Higher Education Sprout Project, Taiwan's academics expressed concerns over whether the global competitiveness of Taiwan's top research universities would be gradually eroded. It appears these concerns are coming to fruition. According to WoS and Scopus databases, the number of papers published by four selected Taiwan universities—National Taiwan University, National Cheng Kung University, National Chiao

Tung University, National Tsing Hua University—dropped drastically from 2015 to 2017, and the same pattern was seen across all Taiwan’s universities (Table 5.6). It was also found that there is a high correlation between the number of publications and the funding awarded after examining the relationship between them (Table 5.7). It demonstrated that the government funding cut impacted research output significantly after 2016.

Table 5.5 Comparison between Taiwan HE initiatives before and after 2016

	Three excellence initiatives	Higher Education Sprout Project
Year launched	2005/2016	2017–
Focus	<ol style="list-style-type: none"> 1. Pursuit of excellence 2. Building world class universities 3. Selection and concentration 	<ol style="list-style-type: none"> 1. Teaching quality and learning outcomes focused 2. University social responsibility 3. Global competitiveness 4. Egalitarianism
Funding	Five years 16.66 billion	Part I: US 326.7 million each year Part II: US 182.19 million
Number of participating institutions	<ol style="list-style-type: none"> 1. Research Excellence: 12 2. Teaching Excellence: 31–33 3. University and Industry Collaboration Excellence: 12 	Part I: 156 Part II: global Taiwan (top ranked institutions)—4 global Taiwan (research center)—24
Impacts/challenges	<ol style="list-style-type: none"> 1. Increasing research output 2. A number of universities were ranked top 500 	<ol style="list-style-type: none"> 1. Funding scheme shifts from con in a wider dispersion approach 2. Decreasing research outputs

Table 5.6 Number of publications from Taiwan’s Universities by WoS and SCOPUS

Database	WoS			SCOPUS		
	2015	2016	2017	2015	2016	2017
National Chiao Tung University	1585	1574	1469	1598	1610	1514
National Cheng Kung University	2506	2491	2319	2671	2565	2407
National Tsing Hua University	1714	1674	1572	1787	1785	1668
National Taiwan University	5055	4740	4679	5319	5042	4981
Average on four institutions	2715	2620	2510	2668	2567	2466
In Total (all Taiwan’s universities)	27,074	26,902	25,663	28,989	28,502	27,137

Source Authors

Table 5.7 Correlation between number of papers and funding awarded

National Chiao Tung University	2016		2017	
	1574 (No of papers)	33 (Million)	1469 (No of papers)	33 (Million)
National Cheng Kung University	2491	53.3	2319	37
National Tsing Hua University	1674	40	1572	33
National Taiwan University	4740	103	4679	60
Correlation coefficient	0.998		0.994	

Source Authors

5.5.2 Ranking Syndrome: To Be or Not to Be a World Class University?

Examining current global ranking outcomes, it can be seen that universities in the top rankings have many of these attributes, such as publications, funding, etc. Many nations tend to use rankings as a basis for building world class universities despite their well-documented methodological flaws, particularly reductionism, where the nature of higher education quality is reduced to one or two simple or fundamental measurements (Hou, 2012; Lo, 2014). Since the excellence initiative was launched in 2005, there has been widespread discussion of the appropriate use of global rankings for measuring selected research universities in Taiwan. Altbach (2015) warns that “using citation counts as a way of measuring excellence presents serious problems,” because these data “emphasize material in English and journals that are readily available in the larger academic systems,” such as the UK and the US (pp. 1–2).

It is nevertheless evident that there is indeed a high correlation between the global ranking of institutions and their funding from government. World class university building would likely accelerate inequality in Taiwan higher education. Global ranking inevitably causes fiercer competition between Taiwan’s universities and triggers tensions and confrontations over the allocation of government resources between selected and nonselected institutions. The more funding the institution gains, the higher its global ranking, which makes “ordinary” institutions worry that a poor global ranking might marginalize them in Taiwanese higher education.

As a matter of fact, Taiwan did attempt to launch its own ranking systems in both global and local levels in order to play a more proactive role in response to pressure brought about by the world class university movement. Early in 2003, the first college ranking nationwide was published by Tamkang University on a basis of calculation of 8 criteria with 16 indicators to assess overall performance of Taiwan’s universities, which drew great attention but severe criticism from universities. In 2007, the Performance Ranking of Scientific Papers for World Universities’ from the Higher Education Evaluation & Accreditation Council of Taiwan (HEEACT),

was calculated on the basis of the quantity and quality of papers on the Science Citation Index (SCI) and Social Science Citation Index (SSCI) journals and has been published annually since 2007 (Hou, Morse, & Chiang, 2012b). Yet, these two rankings were terminated respectively in 2012 and 2016 due to political pressures and strong feeling of antagonism from universities. As Salmi (2015b) stated, “The focus on world-class universities is likely to further promote elitism. In the search for academic excellence, top universities are very selective, which bears the risk of keeping away talented students from families with low-cultural capital” (p. 18). Mok (2016) noted that two serious consequences had emerged in Asia under “ranking syndrome”, “first, a stratifying of universities and; second, negative impacts upon students – particularly those who fail to get a place at one of the highly ranked universities, which, for the student, can result in being perceived as a second-class citizen” (p. 1).

5.5.3 Political Factors Matter in Building World Class Universities

Over the decades, the nation-state has continued to play a dominant role in policy shifts regarding Taiwan’s higher education development and governance. This engagement has largely taken place irrespective of the type of policy change in place: transformation from the aim of building world class universities to a new focus on social impact and responsibilities; from a selection and concentration-based funding scheme to an egalitarian approach; and from accountability to autonomy. As Lo (2019) argues, “on this basis, it is suggested that the reorientation reveals an attempt to balance the external/global trends and requirements (which are revealed by the world-class movement) and the internal/local pressures (which are institutionalized by democratic elements in higher education governance)” (p. 4). Concerns remain that policy connected strongly with local politics could to some extent destroy the sustainable development of education when a new administration takes office.

Over the past decade, the Taiwanese government has endeavored to elevate the top universities to world class status by launching numerous excellence initiatives. Although there has been remarkable progress, several challenges remain in respect to continuity and transformation amidst fierce competition for global positioning and wider participation by internationally competitive universities, particularly with a new direction for Higher Education Sprout Project. Building world class universities nevertheless remains necessary if Taiwan’s government is to further its impressive economic progress and global influence. The importance of human resource development must be stressed in world class universities if they are to achieve excellence in research performance. Although the Tsai administration reorients the focus of previous excellence initiatives, establishing world class universities remains desirable for Taiwan’s future.

5.5.4 Implication of Academic Ethics and Integrity in Science and Social Science Researches as a Growing Concern in Governmental Policy

Due to the severe competitions in research publications globally and nationally under the world class university building initiative schemes, academic integrity has become a growing issue in Taiwan society. Several cases in academic corruption from well-known universities in Taiwan appeared over years, which had forced the government to make a clear policy over research misconducts and to regulate academic integrity in all public and private universities. Early in 1996, a Joint Institutional Review Boards (IRB) has been set up for medical research with the endorsement of the government (Medical Research Ethical Foundation, 2020). Under the law of Human Subjects Research Act enacted in 2011 and revised in 2019, the implication of IRB becomes imperative to all types of related human subject studies done by the investigators. The purpose of the law aims to ensure the quality of academic researches, research design in order to protect the participants in the study (Ministry of Health, 2019).

In 2017, Ministry of Education requested all universities and colleges to set up code for research ethics, providing training workshops for researchers, and streamlining the handling procedures of research misconduct cases in accordance with the regulation of Ministry of Science and Technology. In other words, IRB is considered as the basic requirement for the governmental research funding and subsidies. In support of universities and individual researchers, Ministry of Education set up Center for Taiwan Academic Research Ethics Education (AREE) in 2014 to offer online platform of Academic Ethics and Research Integrity in Taiwan higher education (Center for Taiwan Academic Research Ethics Education, 2020).

5.6 Concluding Remarks

This chapter has described and discussed how Taiwan's government strategically built world class universities through excellence initiatives, as well as why the new policy was initiated based on the doctrine of egalitarianism after 2016. Following the selection and concentration policy prior to 2016, it was found that Taiwan had successfully established a few top ranked universities with a significant increase in research outputs. However, the Taiwan case also demonstrates that the worries about inequality became realities in Taiwanese society. Additionally, Taiwan's experience shows that controversy over using or not using rankings to build world class universities still exists between institutions and the government. In responding to the negative impacts, the 2017 Higher Education Sprout Project requested the selective research institutions in Taiwan to demonstrate university social responsibility and local community engagement. Concurrently, the fact that a declining number of research outputs in the selected four top universities under the new initiatives caused academics and government to worry whether Taiwan universities would lose

global competitiveness in these years. Besides, academic integrity started to draw the attention of the higher education policymaking by the government.

In addressing the issues of world class universities, it should be noted that a clear vision, institutional features, favorable governance, and sufficient resources are all crucial if a university is to develop itself into a world class university. The example of Taiwan demonstrates that a world class university cannot be created overnight, and it may vanish under different government policy. As Salmi (2012) states, “there is no single road to excellence.” Likewise, Daniel Lincoln says “excellence, like all things of abiding value, is a marathon, not a sprint.” What kind of approach will enable a world class university to be built in Taiwan is still a noteworthy issue.

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