



University Education for Individual Capacity Building and Collective Sustainable Development

Volume I: Re-engineering of the State's Institutional System and
Analysis of University Education in Japan

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要旨 失われた30年、一体失われたのは経済成長の機会だけなのか？真に失われたのは日本人の将来への自信、日本の持続可能な発展を可能にするためのキャパシティづくりの機会ではないだろうか？本稿は3部作による研究論文の第1部作として、バブル崩壊後の日本の長きに渡る苦難の原因を制度理論から読み解き、これから始まるであろう第4次産業革命、ハイパーグローバル時代、また現在進行形で世界規模で取り組まれている持続可能な開発目標プロジェクトや地球温暖化問題への取り組みに対応する日本の新たな制度システム構築の必要性を提言する。そこで制度変更に必要な不可欠とされる「教育」（特に昨今のユニバーサル大学教育時代における大学）に着目し、第2部作への知見を得ることを目的に戦後日本の大学教育システムの発展の歴史を紐解き、現在、またこれからの日本の大学教育現場における課題に考察を加える。

Abstract Japan's lost three decades. Was it only the time lost for economic development? No, long lost was the confidence of the individual Japanese for the future and the opportunity for the country's capacity building for sustainable development. This paper, as the first installment of the planned three-volume research monograph, attempts to define the root cause of prolonged Japan's struggle and argues for the need for the re-engineering of the state's institutional system for the Age of the Fourth Industrial Revolution and Hyper-Globalisation, and in line with the on-going global efforts for Sustainable Development Goals and fights against Global Warming. Given the critical role of education in institutional changes, this paper focuses on university education in the age of 'universal university education'. It analyses the post-war historical development of Japan's university education system. It examines the current and future challenges in the system as a precursor to the second installment of the focal research work.

Key words capacity building, institutional change, Japan, sustainable development, university education

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I Introduction

The Land of the Rising Sun, once was a confident and vibrant state. Out of the devastated defeat in World War II Japan ascended to earn an international acclaim as a model state of economic and social development. Even in the turbulent decade of the 1970s, marked by the Nickson shock and two rounds of oil (price) crises, she fared far better than any other developed economies, piling up cases and evidence for Harvard Professor Ezra Vogel's 1979 book, *Japan as Number One: Lessons for America*. By the mid-1980 the country secured its prominence as one of world's economic superpowers and technological leaders. The Japanese grew confident and their proud country was expected to exert more economic influence in the region and the world into the 1990s and beyond. In the background of this celebrated future projection, however, the seeds of the state's future troubles were growing.

This paper is the first installment of the planned three-volume research monograph, which attempts to present informed discussions for Japan's re-engineering pursuit of its institutional system with university education as the driver and enabler of such institutional changes. A new institutional system — built on the logic of global market economy, global humanitarian and egalitarian framework of the UN-led global project, Sustainable Development Goals, and our shared concerns for the global cultural-cognitive symbol of our Mother Earth. Drawing on the pivotal role of university education in Japan's institutional system re-engineering, this project is to analyse and discuss challenges and opportunities in transforming university education for an individual capacity building for the future and our collective sustainable development. Not explicated, the premise behind the project is the undeniable reality of our interdependent existence — I' as an individual as well as we' as members of our local, national, regional and global community situated on the Earth in time. Our individual well-being is directly or indirectly shaped by those of the others. After all, nothing exists in a vacuum and no one lives in total isolation.

The proceeding sections of this first installment of the monograph are organ-

University Education for Individual Capacity Building and Collective Sustainable Development (Miyamoto) ised as follow. It first reviews Japan's prolonged multifaceted struggle and analyses its root cause from a perspective of Institutional Theory. Drawing on the insight from the analysis, it discusses the critical role of education, in particular university education, in systemic institutional changes for Japan's nation rebuilding in the increasingly connected but uncertain technology-driven future. Then the paper examines present and future challenges in Japan's university education through a historical analysis of the post-war development of Japan's university education system.

II Japan in Institutional System Crisis

In 1991, the overheated and frenzied asset and stock markets burst, shattering confidence and the growth mind-set of corporate Japan. No one knew that it would mark the beginning of Japan's decades-long struggle and decline. In hindsight, it can be said that the Japanese policymakers overly underestimated the complexity and magnitude of challenges in their hands: economic recovery and the implementation of drastic regulatory and policy changes to the state's market systems, industry structures, and business practices as prescribed in the Structural Impediments Initiative — i.e., an international agreement or understanding in substance (Matsushita 1991, 440) between policy makers in the United States and Japan. Given their historical, trade, and national security relationships, the latter had no choice but to replace its long-established unique market and economic institutions, the bedrock of Japan's post-war economic success, with ones compatible with those of the former. Corporate Japan found themselves under growing pressures from financial constraints and changes in market regulations and industrial polices. Before the state could prescribe a remedy for the frail economy, the nation was struck by a series of natural and man-made crises. Most notably the 1995 Great Hanshin-Awaji Earthquake, the 1997 (domestic and Asian) financial crisis, and the 2011 Great East Japan Earthquake involving Fukushima Daiichi nuclear crisis which later entailed drastic shifts in energy policies among nuclear powered nations.

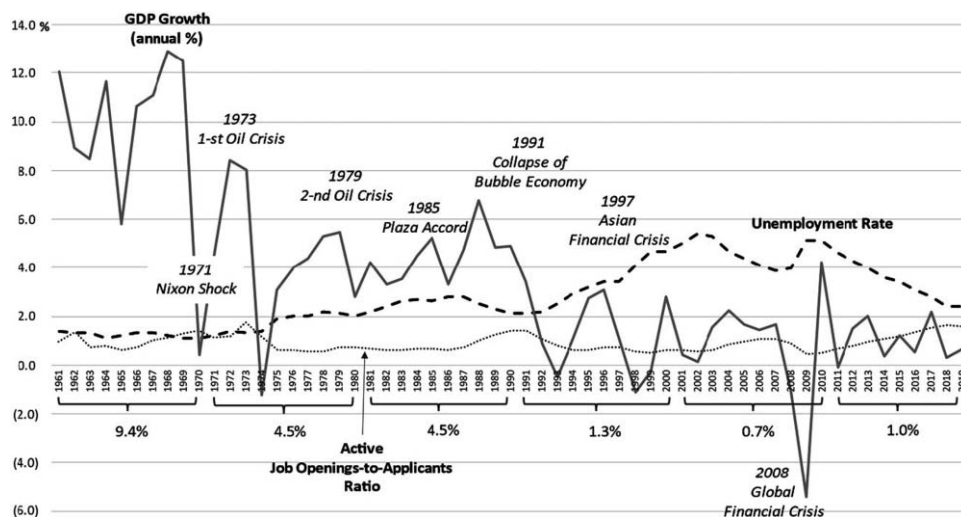
In the depressed and deflationary economy, cost-cutting became the priority.

Manufacturers moved their operations overseas for cheap labour and/or explored a cost-effective staffing option of non-regular employment. Near-zero, low interest rates forced corporate and individual investors to look for better opportunities in off-shore markets. More conventional full-time jobs were lost and job security became the priority of many workers. An air of confidence and vibrancy was replaced with that of self-doubt, risk-averse, apathy, and even a sense of alienation. Against this economic background, social problems proliferated and intensified in families, schools, and communities, such as poverty, neglect, schoolyard bullying and school refusal, social withdrawals, isolation, mental illnesses, divorces, evaporating collective spirits, and even suicides among others. The problem of economic, social, and educational disparity, the so-called divides, went to spread across the country. Somehow the concept of 'happiness' went to be understood more or less as an affective state of merely being free from hardship and the worst possible imaginable outcomes. Drawing from Fromm's (1994) conceptualisation of 'negative freedom', it can be said that in Japan one's life project became a mere pursuit of 'negative' happiness to many. At the state level, the mounting public debt over the past decades speaks for itself of the challenging tasks in dealing with a multitude of economic, social, and environmental problems. Japan's extended struggle was phrased initially as a lost-decade, but then, two-decades and now three-decades. Was it only the time lost for economic development? No, long lost were the confidence of individual Japanese people for the future and the opportunity for the country's capacity building for sustainable development.

Figure 1 presents a summary snapshot of Japan's historical economic development between 1961 and 2019. It is composed of the annual GDP growth rate (World Bank, n.d.⁽²⁾) and labour market related data available from the Ministry of Health, Labour and Welfare (MHLW) (n.d.) during the period.

Evident in Figure 1 is the rise and the fall of Japan between 1961 and 2019. A simple comparison of the decade-average GDP growth rate between the pre- and the post-bubble economy illustrates the magnitude of the rise and the fall. The unemployment rate and the active job openings-to-applicants ratio also project the severity of the collapse of the bubble economy and the prolonged economic struggle.

Figure 1: The Rise and the Fall of Post-War Japan
Annual and Decade-Average GDP Growth Rates, Unemployment Rate, and the Active Job-to-Applicants Ratio between 1961 and 2019



(Note: World Bank (n.d.⁽¹⁾) defines the annual GDP growth rate' as an annual percentage growth rate of GDP at market prices based on constant local currency .

As for the unemployment rate, it has not come back yet to the 1991 level of 2.1 per cent despite the increased labour market fluidity through non-regular employment. Figure 1 also includes descriptive markers of significant political and economic events which shook and shaped Japan's economic foundation during the time. Not incorporated in the figure due to the space limitation, the two tragic natural disasters should never be forgotten: the 1995 Great Hanshin Earthquake and the 2011 Great East Japan Earthquake which independently and collectively left psychological scars to many Japanese.

Over the recent past decades, the country's economic and technological pre-eminence has eroded and been lost to its neighbouring states, most notably China. For example, in the latest IMD World Digital Competitiveness Ranking 2020 (IMD 2021) Japan is ranked in the 27th place after Singapore, Hong Kong, South Korea, Taiwan, Australia, China, New Zealand and Malaysia in order. At the dawn of the Fourth Industrial Revolution (Schwab 2016), Japan need to be better prepared for a new chapter of its own and the world history. It cannot afford to repeat the same mistake made almost three decades ago at the dawn of globalisation and

Internet Revolution. Janan's urgent task is to devise a means to transform the nation.

Among others, Institutional Theory offers a valuable guide for Japan's state rebuilding. Japan is not new to institutional system change. It has made successful institutional system change twice before in the modern history: at the time of the Meiji Restoration and the post-war state reconstruction. Then, what are obstacles unique to the current institutional system change? To begin with, La Croix and Kawaura (2006) explain the root cause of the prolonged economic troubles of Japan from the neo-institutional theory. According to their analysis, it was the absence of 'sense-of crisis' among policy makers or powerbrokers for decisive actions during the 1990s. Nevertheless, to be fair to the policymakers, it should be better understood that their blamed indecisiveness was the product of their struggle in introducing the new market institutions to the established institutional system of Japan. Vogel supports such an interpretation. Vogel (2006, 14) attributes the cause to a disarray between two dimensions of institutions: economic institutions driven by rationality and interests and sociological institutions guided by legitimacy and norms. The widely accepted definition among neo-institutional economists is one presented by 1993 Nobel Laureate in Economics, Douglass North. That is, institutions as 'the rules of the game in a society or, more formally, the humanly devised constraints that shape human interaction' (North 1990, 3). From the same field of economics, Roland (2004) identifies different types of institutions by a speed and a continuity of change. Slow-moving institutions are ones which change slowly and continuously like culture, collective mind-sets (e.g., values, beliefs, and social norms), and technology while fast-moving institutions are those which can change quickly and irregularly like political institutions. While supporting the aforementioned Vogel's account, Roland also stresses the necessity of interaction and complementarities between the two as a system and the critical role of slow-moving institutions for a successful implementation of a fast-moving institution. The recent set-back to the European Union, Brexit, can be explained along this line — i.e., the disarray between EU-forced regulative institutions and Britons' socio-cultural institutions built around their national identity. From a sociological perspective, Scott (2008, 48) offers a

holistic, more dynamic view of an institutional system as a multi-layered system built on social structures that have attained a high degree of resilience [and are] composed of cultural-cognitive, normative, and regulative elements that together with associated activities and resources, provide stability and meaning to social life. Of the three Scott (2010, 7) asserts the cultural-cognitive' element or pillar to be the bedrock for normative prescriptions and regulative controls among others. This rich systemic interpretation of institutions offers the most plausible institutionalist explanation for the past success and the present struggle of Japan's institutional system change. That is, the presence of the cultural, political, religious, spiritual symbol as the absolute authority and as the unity of the state, the divine imperial family in the previous two institutional system changes. The significance of the imperial family to the Japanese, especially Emperor, was also well respected by the United States, the Victor of the Asia-Pacific War as evidenced in the following fact that the late Emperor Showa was never subjected to prosecution for war crimes. Unfortunately, today's Japan does no longer have such a powerful cultural-cognitive symbol among post-war generations.

Following the defeat of World War II, the Constitution of the Empire of Japan was abandoned and replaced with a new constitution which was founded on the Western liberal and democratic principles. Japan's education systems were also radically reformed based on the democratic principle of equal opportunity to instil liberal democratic values in young Japanese. The Imperial Rescript on Education was abandoned; the Fundamental Law of Education was enforced on March 31 in 1947, even prior to the enforcement of the new Constitution on May 3 in 1947 (Ministry of Education, n.d.⁽¹⁾). Interestingly the year 1947 also coincided with the arrival of the so-called Baby Boomers in Japan who have continued to shape Japan's development in various ways even to the present day for their sheer cohort size. Borrowing from Existentialist's phrase, they did not choose but were thrown into the middle of the nation-wide state's rebuilding. Irrespective of their own desires, they were schooled and educated with the newly enacted social values of liberal and democratic ideals. Outside school, at home and in the neighbourhood, however, they were raised and disciplined by those whose thinking and behaviour were still intact with

the traditional Japanese values. (The interested readers can find the Western accounts of traditional Japanese values in Ruth Benedict's (1946) *The Chrysanthemum and the Sword* which most likely shaped the policies of the Allied Occupation.) Growing up in this environment characterised by the values paradox, they went to internalise the dual value structures to avoid unnecessary cross-generational conflicts and facilitate effective interactions (Miyamoto and Grainger 2004, 80) just like children of migrants who have to learn to live in the two parallel worlds of socio-cultural values. By their birthright, they can claim to be the first generation of the Japanese built on the liberal and democratic ideals. They were ones who went on promoting values of individuality, free choices, and equality to their children at home and younger generations in their neighbourhood and society at large.

Outside Japan, there has emerged a global platform for institutional changes built on the neoliberal market ideals and slow-moving global normative moral framework and cultural-cognitive symbol built around our shared goal of human development and our home, planet Earth. More specifically, the UN-led global programs of the Millennium Development Goals (2001-2015) and Sustainable Development Goals (2016-2030), and our collective ecological fight against global warming or climate change. So what options are there for Japan's sustainable state development pursuit? No longer accepted is the conventional excuse of Japanese exceptionalism. Instead, Japan has to ride on the wave of the emerged global standards of slow-moving normative and cultural-cognitive institutions driven by humanitarian and egalitarian principles and ecological logic. The principle of sustainable development is best defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs (United Nations 1987, 27). This notion of sustainable development should resonate more with many Japanese youth who have been marginalised for their cohort size in the increasingly ageing society. In addition, the thesis of sustainable development is powerful enough to encourage one to question and even dismiss the early existentialists concepts like nothingness and nihilism. If we can all agree that we continue to exist interdependently with others and the external environment in time, we now have a clear humanistic mission — i.e., building a bridge responsibly between the past and the future generations.

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Furthermore, the Mother Nature of our planet, is much closer to the hearts of the Japanese who live in a colourful four-seasoned, yet natural disaster-prone environment as the historical cultural-cognitive symbol of the indigenous nature religion, Shintoism. But how to initiate and drive such institutional changes and spread the gospel of humanism and Mother Nature. Neither manipulative, misleading propaganda, and cheap social marketing. It must be built on formal education at schools and universities as well as informal education at home and in the local communities where learners continuously engage in active learning over extended time. Roland (2004) acknowledges the instrumental role of education in the development of slow-moving institutions like technology and collective mind-sets. He contends that education facilitates learning through trial and error, and research and experimentation.

III Education and Institutional Change

The critical role of education in a state's reengineering of the institutional system is well documented in Japan's Modern Education System: A History of the First Hundred Years (Ministry of Education, n.d.⁽²⁾) both at the time of the Meiji Restoration and the post war state re-building. Of particular interest is the context of and the logic in Japan's post-war educational reform in the document. Under the Supreme Commander for the Allied Powers (SCAP), General Douglas MacArthur, the General Headquarters (GHQ) was set up to control the Japanese Government with the primary mission to implement fundamental reforms throughout Japanese society in order to foster a democratic and peaceful nation, and the educational system was considered the cornerstone for this effort. Furthermore, for the very purpose, the Civil Information and Education Section was established under GHQ and advised SCAP on policies on public information, education, religion, and other sociological and cultural problems of Japan (Ministry of Education, n.d.⁽³⁾) — as if they had known even back then of the critical role of those slow-moving sociological, cultural, and (socially constructed) cognitive institutions in determining an outcome of reengineering pursuit of an institutional system. Also in the modern context, evident is the pivotal role of education in institutional changes. The afore-

mentioned UN-led global project, Sustainable Development Goals (SDGs), list education as one of the 17 goals (The United Nations, n.d.). And importantly, a success of the multifaceted global project is said to depend largely on the program referred to as Education for Sustainable Development (ESD)'. In the account of the Ministry of Education, Culture, Sports, Science and Technology (MEXT 2004), it all started as the United Nations Decade (2005–2014) of Education for Sustainable Education (2005–2014) following Japan's initiative at the the 2002 World Summit on Sustainable Development in South Africa. Under the United Nations Educational, Scientific and Cultural Organization (UNESCO) (2019) as the lead agency, the spirit and principle of ESD program has continued to grow in Global Action Programme on ESD (2015–2019) and ESD: Towards Achieving the SDGs (ESD for 2030).

MEXT (n.d.⁽¹⁾) defines the following key competencies to cultivate' in the ESG:

- *Sustainable development-related values (e.g., respect for people, respect for diversity, inclusivity, equal opportunity, respect for the environment)*
- *Systematic thinking (understanding the context of problems and phenomena, taking a multifaceted, holistic perspective)*
- *Alternative thinking (critical skills)*
- *Data and information analysis*
- *Communication skills*
- *Leadership.*

An early report on ESD from UNESCO (2013) presents success stories of ESD implementation across the world, ranging from China to Chile. As for Japan, it reports that Japan has integrated ESD into national curriculum guidelines . This account is in line with the introduction of the revised Course of Study built on the principle of the cultivation of 'Zest for Life' for the elementary and lower secondary schools in 2008 and that for upper secondary schools and schools for those with special needs in 2009 (MEXT n.d.⁽²⁾). A decade later, at the receiving end of

the upper secondary school students at universities, however, many university academics wonder whether their students are equipped with the competencies promoted in the ESD programs. Or frankly speaking, how many of university students are striving for their own capacity building for the future and our collective sustainable development across universities in Japan? Or in the context of the present universal university education in Japan and the emergence of life-long learning and learning society, it would be more realistic to understand that those competencies are something that need to be cultured and enhanced throughout life. This interpretation highlights both challenge and opportunity of Japan's university education which have drawn a growing attention and interest of policy-makers in relation to the emerging recurrent and refresh learning needs for the age of Industrial Revolution 4.0. The following section examines the post-war development of Japan's university education system to better understand the historical background of and explore sources of current and future challenges faced in the sector.

IV Post-War Development of University Education in Japan

Education is the bedrock of a state building and of critical importance for a successful institutional change. As part of the state's institutional system engineering, Japan's university education system experienced two major changes, or educational reform, since its foundation at the Meiji Restoration. With each reform, university education was made more accessible beyond elite families endowed with inherited rich economic, social, and cultural capital. In the context of post-war education reform, reforms were not, strictly speaking, of strategic nature, but more of an operational response to the arrival of two waves of large 18-year-olds cohorts: the Baby Boomers (born in 1947-49) and their juniors, or the Second Baby Boomers (born in 1971-74), who came to the scene between 1966 and 1968 and between 1990 and 1993, respectively. The main driver of the reform was the increased availability of university education, which opened up a paradoxical challenge of the quantity-quality double hurdle in the sector.

University education occupies the centre stage of the higher education sector

in Japan. Commonly the sector is defined as a formal education for those who completed the secondary education or those qualified to possess the equivalent skills and knowledge. There are four types of institutions in Japan's higher education sector: universities, junior colleges, colleges of technology, and specialised training colleges with each serving unique educational and training needs. Driven by democratic and egalitarian and the market principles since 1990s, the university sector has been radically deregulated and witnessed a rapid proliferation of educational service offerings, or courses, and providers in response to the growing demand in the education market and changes in society and the industry structure. Thirty years later, the sector stands at a crossroads. The following are some of commonly publicised challenges which are reported to shake up the sector and continue to shape the sector:

- the problem of over-supply of the university education market due to the shrinking 18-year-olds cohort population,
- growing diversity in student academic quality and preferences, especially in the market-driven private university sector,
- global competition,
- accelerating technological development,
- growing social responsibility for graduate employability and employment, especially of university graduates in the academically lower end universities,
- the Fourth Industrial Revolution where the conventional administrative office work to be lost, and
- recurrent or refresh learning needs in the emerging learning society.

Drawing on Trow's (1973) historical and sociological theory of transformation of higher education, the following section traces and analyses the past development of Japan's university education sector to generate some insights into the quality-quantity problem of university education. At present, Japan sits in the stage, the so-called 'universal university education'. The phrase, 'universal university education', is adapted to the context of the present Japan from Trow (1973) who developed a theory on transformation of higher education based on his historical

University Education for Individual Capacity Building and Collective Sustainable Development (Miyamoto) and sociological analyses of the progressive development of higher education in the United States. According to him, social, economic, political, and technological developments together with prevailed democratic and egalitarian values drive a multifaceted transformation of higher education with growing diversity in students and teaching staff. He defined two states of transformation: first from the traditional elite' higher education phase (up to 15 per cent of the relevant age group advancing into higher education) to the mass' higher education stage (over 15 to 50 per cent), and then to the egalitarian universal' or open-access' higher education stage (over 50 per cent). He contends that this staged, progressive transformation of higher education is a response to the growth of higher education seekers, or in economic sense, market demand. Trow (1973, p. 1) states: *In every advanced society the problems of higher education are problems associated with growth. Growth poses a variety of problems for the education systems that experience it and for the societies that support them* He goes on to assert that the quantitative growth of higher education and its associated problems need to be addressed along the following three dimensions of the manifestation of the growth: 1) the rate of growth, 2) the absolute size of the higher education system and each education provider in the system, and 3) higher education advancement rate of the relevant age cohort. According to his model, each time the proportion of the cohort advancing into higher education rises beyond the set thresholds (i.e., 15 and 50 per cent), the character of the education system will change substantially due to a growing diversity' in quality and socio-economic backgrounds of new entrants to higher education. For this very reason, he asserts the need for addition of new non-elite' universities to the system since mass education is both quantitatively and qualitatively different from elite education (Trow 1973, 6). This line of reasoning is also extended to the quantitative and qualitative differences' between mass and universal education. To get some sense of the qualitative difference, one can engage in a thought experiment of a theoretical comparison between two student groups: the top 15 percentile student group and the next 15 or 35 percentile student group ranked by the academic competence with a normal distribution curve in mind. In a more realistic sense, Roemer (1998, 21) explains that ()cademic children do well because they have absorbed an intellectual culture at home that makes

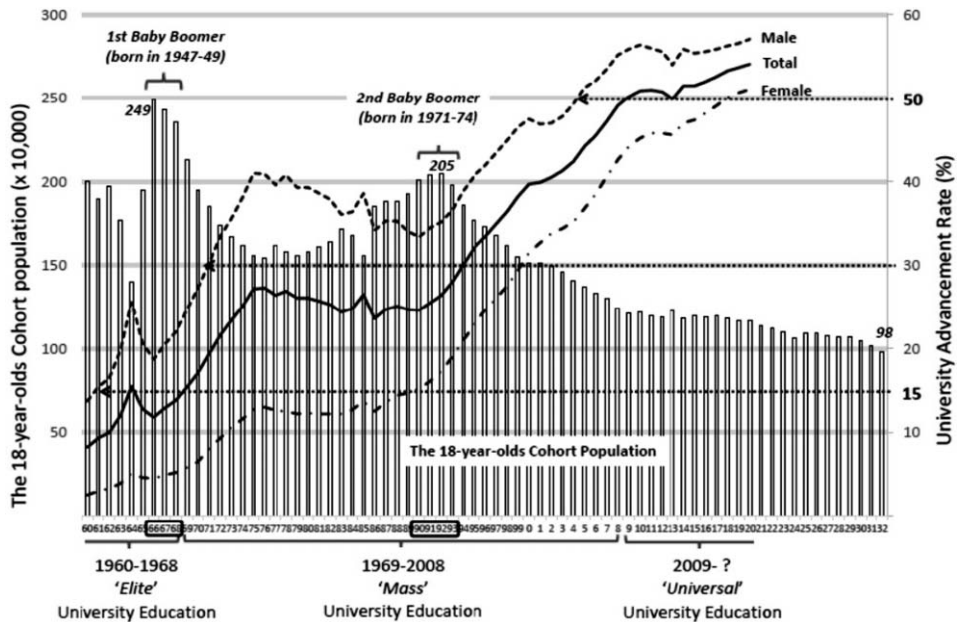
success in school come easy . In his study on educational resource allocation based on the equality of opportunity' principle, he focuses on an autonomous effort of an individual as the key model variable and controls the family background as it falls outside an individual's autonomous effort. Put simply, economic, social and cultural capital largely influences student academic performance beyond the student's autonomous efforts. The challenge to policymakers is how to create a level-playing-field where an individual's autonomous effort alone accounts for one's success in life.

Later Trow (2005) examines the validity of his US-based elite-mass-universal' model in other advanced societies, primarily in Western Europe. He found a similar pattern in the experiences of advanced societies in Europe which, lagging the US by decades, began to move slowly towards the mass higher education' stage in the 1970s and went to enter the rapid development over the subsequent two decades in response to the growing demand for graduates with skills and knowledge required in the post-industrial and knowledge economy. Looking into a future development of higher education, he prophesies the continued diversification in the universal higher education system as we move into a learning society' and the Fourth Industrial Revolution.

Amano (2010) puts Trow's elite-mass-universal' theory under critical investigation in the Japanese context. His analysis highlights the critical role of the central government in the development of the university education sector similar to its European counterparts up to 1980s. According to his account, Japan originally adopted the European elite' university model built on research, teaching, and scholarship. More specifically, the model was a product of the educational vision of a Prussian (or German) enlightenment thinker, Wilhelm von Humboldt (Central Council for Education 2005), whose idea of combining both teaching and research in one institution that guided him in establishing the University of Berlin in 1810 (today's Humboldt University) and the structures he created for this institution would become the model not only throughout Germany but also for the modern university in most Western countries (Mueller-Vollmer and Messling 2017, 12). Amano (2010) defines the characteristic features of the European model as the

University Education for Individual Capacity Building and Collective Sustainable Development (Miyamoto) tradition of 'scholarship and training of cultured men' and asserts the significant role of the central government in defending the academic elitist tradition with a great control over universities through funding and regulations. One of his conclusions is that following the post-war educational reform and more rapidly into the 1990s, especially after 2000, against the background of globalisation, the Japanese model shifted quickly toward the US model built on the egalitarian value of 'equality of educational opportunity' and the market principle. Similarly, Hashimoto (2011) examines the post-war development of Japan's higher education and presents the following time frame for each of the three phases of transformation of higher education: 1) the elite higher education phase (1945–59), 2) the mass higher education phase (1960–1999) and 3) the universal education phase (2000 onwards). Nonetheless, it needs to be stressed that his definition of higher education includes both universities and junior colleges.

Figure 2: Post-war Development of University Education in Japan by University Advancement Rate (1960–2020)



(Note: The university advancement rate is defined as a ratio of the number of those entering university as an undergraduate student (including both fresh and past upper secondary school graduates as well as those qualified applicants) to the total of those lower secondary school graduates and those who completed the lower secondary school education curriculum three years ago.)

Figure 2 depicts the post-war development of university education in Japan between 1960 and 2020 with the university advancement rate as an indicator of the growth of the sector together with the projected focal age cohort population up to 2032. (Data were compiled from the following two sources: MEXT (2020⁽¹⁾) School Basic Survey: the student advancement rates for university advancement rates and Chapter 5 in White Paper on Science and Technology 2019 (MEXT 2020⁽²⁾) for the estimated 18-year-olds population covering between 1960 and 2032.)

There are some noteworthy facts. First Japan's structural problem of population shrinkage is evident in the figure. After experiencing the second peak in 1992 with the arrival of the so-called 2nd Baby Boomers with over 2 million in number, the 18-year-olds cohort population has been set to a downward trend with no sign of the 3rd Baby Boomers on the horizon. The age cohort population has continued to decline, passing the 1.54 million mark, the bottom between the two peaks of the First and the Second Baby Boomers, in 2000. Alarmingly, in 2032 the 18-year-olds cohort population is estimated to shrink into half of that of 1992, falling below 1 million. This is the context of on-going debates around the over-capacity in the university sector — i.e., intensifying market competition for students within and among universities and within and across regions and inevitable shakeout. The sector is destined to face increasing pressure for accountability and social responsibility as the primary provider of higher education.

Figure 2 presents three different university advancement rates: two sets of gender-specific university advancement rate as well as the conventional gender aggregate or total. When the historical trajectory of the rate is examined by gender, valuable insights are obtained for discussions on the past transformation of Japan's higher education system as well as her socio-cultural institutional change around gender equality.

In Japan the elite-mass-universal' transformation of university education took place first in 1969, marking the departure from the European elite' education model, and 40 years later in 2009 from the mass to the universal stage. (Note: The Trow's first threshold was exceeded in 1964; nonetheless, the unique context of the year needs to be taken into account — i.e., a huge dent in the relevant age

University Education for Individual Capacity Building and Collective Sustainable Development (Miyamoto) cohort population. This reminds us of the university advancement rate being merely a relative indicator.) Here it should be also noted that the shift to the next transformational stage does not mean that traditional elite universities will go to extinct or to be marginalised. They, regardless of the funding nature, continue to thrive as a prestigious institution of learning, scholarship, and research as evidenced by top ranked universities in various international university ranking reports. The massification of higher education is best dealt with the addition of new non-elite' universities, not through an expansion of the existing elite universities (Trow 1973). When the university advancement rate by total is closely inspected, evident is the significant marks left by the two generations of the Baby-Boomers who came to the university education scene in such a great magnitude (i.e., 2.49 million in 1966 and 2.05 million in 1992) in Figure 2. Their sheer size forced to open up more places in the university education sector each time, setting the upward trend in the university advancement rate. As can be seen clearly, the advancement rate rose following their arrivals. This point will be touched on later.

When the advancement rate is examined by gender, some positive signs of Japan's socio-cultural institutional change is evident. In Japan, still regarded as a male-dominant culture by international standards, university education was conventionally considered primarily for male students who were expected to play their socio-culturally defined gender roles as the head and a sole bread earner for a family. When university education was a social privilege, it offered a graduate an increased earning potential and a status of the social elite. Female students, too, had their own socio-culturally assigned roles irrespective of their desire. They were most likely, only if their family could have afforded higher education for the daughters, sent to a college. This point illustrates the challenging and confusing life of the early post-war generations who had formal education built on the liberal and democratic principles but were not able to live by the principles in their relations with older generations. A noteworthy fact is that the male cohort hit the first threshold of 15 per cent in 1961, eight years before the aggregate age cohort. It continued to ascend and passed the 30 per cent mark in 10 years in 1971. After floating ups and downs around the high-30s over two decades in reflection of the fall and rise

of the age cohort population, it finally cemented a sound footing beyond the 40 per cent mark in 1995.

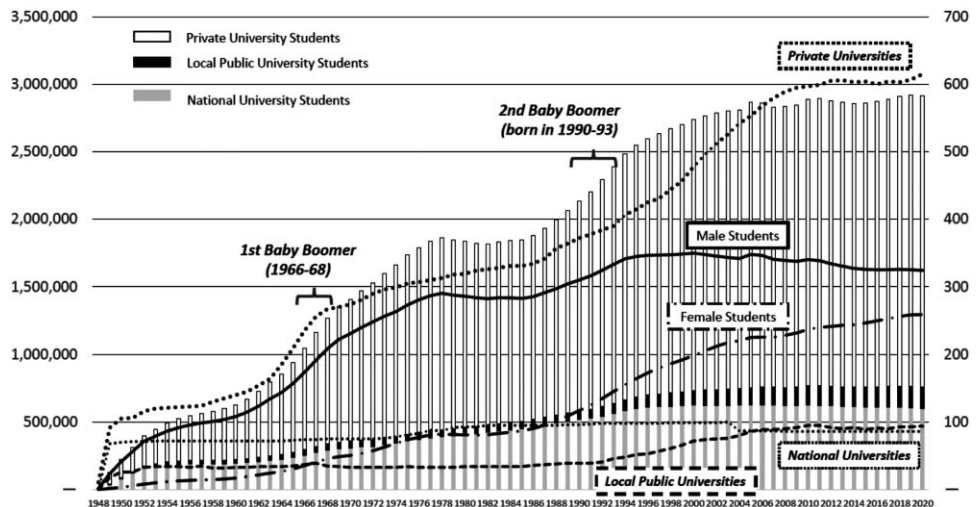
In 2005 the male university advancement rate went to exceed the 50 per cent threshold and still continues to increase with the record high 57.1 per cent in 2020. Roughly speaking, since 2005 one in every two male 18-year-olds has entered university. On the contrary, the university advancement rate of the female cohort travelled far slowly. After a long, yet steady increase over decades, it passed the first threshold in 1990, hit the 20 per cent mark within 4 years, cleared the 30 per cent mark in 2000 and the 40 per cent mark in 2007. Since 2018 the university advancement rate of the female age cohort exceeded 50 per cent. This rapid advancement of the female cohort into university education might be explained among others by the introduction of Equal Employment Opportunity Law in 1986, permeated pro-liberal democratic values in society, and the rise of dual-income families. For example, according to the data available in the Annual Health, Labour and Welfare Report 2020 (MHLW 2021), in 1980 there were only 0.6 million dual-income family households as opposed to 11.4 million traditional Japanese family households, a single-income household with a male income-earner and a full-time housewife. However, since 1992 the former has surpassed the latter in number except for two years of the post Great Hanshin Earthquake. In 2019, the number of dual-income family households hit its record high with 12.45 million and now consists of 68.1% of the family household total. This means that almost seven in every ten of today's family households are a dual-income family household. While this shift can be associated with some social and family problems since the 1990s, it can be argued that the life experience of growing up as a child, especially as a girl, in a dual-income family has nurtured in them a positive attitude towards a working mother or woman and female university education for better employment opportunities.

The arrival of the Baby Boomers was a catalyst for the future development of Japan's university education sector. Their sheer number forced education policymakers to make a temporary concession, an operational adjustment. However, no one seems to have foreseen its unintended consequence: the successive staged transformation of Japan's university education. Originally as a temporary measure,

the Ministry of Education relaxed its control over the university’s student intake, especially that of private universities, which was managed on the principle of maintaining the conventional university applicant admission rate of 60 per cent’ (Ministry of Education 1981). Fortunately or unfortunately, the temporal measure went to become a status quo. In light of the later turbulent, or out-of-control, development of the higher education sector in Japan, Yoshimi (2018) claims the relaxation in policy as the first turning point of the Japan’s post-war university education policy towards the democratic and egalitarian university sector. Figure 3 presents the timeseries data between 1948 and 2020 on the number of universities by the type of institutional foundation (i.e., national, local public, and private) in line graph, the number of enrolled students for each type of university in clustered column, and the student number by gender in line graph. (Data were obtained from 2020 Basic School Survey: 10 Statistics on Universities, Enrolled Students and University Staff available at the e-Stat (2020) website.)

Figure 3 captures different roles played by the three types of universities in the post-war development of Japan’s university education sector. During the period of democratisation of university education, whether of strategic nature or not, the sector grew from 48 universities in 1945 to some 507 in 1990, in response to the social, economic, political and technological developments in Japan.

Figure 3: Transformation of University Education Sector: 1948–2020



The chronicle of the Ministry of Education, offers some detailed historical and political accounts of this development. The post-war reform of the university system, which was largely guided by the equality of opportunity' and democratic ideals of the US-led Occupation Forces, resulted in the establishment of additional 180 new universities (including those promoted or converted into a new university) in two years between 1948 and 1949: the first post-war local public university (i.e., Kobe University of Commerce (The University of Hyogo, n.d.)) and 11 private universities in 1948 and in 1949, 68 national universities, 18 local public universities and 92 private universities (Ministry of Education 1981⁽²⁾). As evident in the figure, it is the private sector that has enabled and facilitated the democratisation of university education, making university education possible to those who can afford it. Without their increased service capacity, a transformation of university education from the elite to the mass stage was not possible. Since 1948, the number of private universities continued to grow from 11 to 274 in 1970 (marked by 30% advancement rate for the male cohort) and 372 in 1990 (marked by 15% advancement rate for the female cohort). So did the number of their students: from 11,666 in 1948 to over 1 million in 1970 and over 1.5 million in 1990. On the contrary, its public sector counterpart has made a steady, more controlled progress with elite national universities and local public universities which required rigorous entrance examinations. As seen in the figure, the aggregate university student number kept rising between 1948 and 1978, from 11,978 to 1.86 million. In 1978, the private university sector accommodated over 76 per cent of the total students in the entire sector. Together with the adoption of the single-track system for university entry under the new, post-war educational reform, the country's unprecedented economic success reenforced the social trend set in the late 1950s (Ministry of Education, n.d.⁽⁴⁾) — i.e., the growing popularity of university education. The rapid economic growth in the 1960s brought its share to workers and the increased family incomes encouraged more parents to invest in their children's university education for a better life prospect. And it was in this context that the Ministry of Education became increasingly concerned with the quality of university education and introduced a private-sector funding system to exercise control over the private sector (Amano 2010).

Between 1955 and 1990 there were also a series of remedial measures designed to address problems of ever-intensifying competitive pressure for university entry among students. Alternative to the conventional rigorous academic entrance examinations, a new entrance examination method was introduced in 1967 — i.e., one based on recommendations by school principals. This new entry pathway to university was designed to reduce the mounted strains associated with the conventional yearly one-off rigorous entrance examinations both on the students and their families as well as on the secondary education system (Nakamura 1996). According to Nakamura (1996), this new, less stressful university entry pathway, fueled the momentum of the ‘massification’ of university education. The 1971 Central Council for Education report, which embraced the US model of the higher education transformation, paved the solid way to the continued expansion of the university sector (Amano 2010). The report, consisting of 13 recommendations, urged for further diversification of higher education and supported the progressive transformation of the sector. The private sector was active, or to be precise aggressive, in recruiting new students with the aforementioned alternative entrance examination method. In the first year of its implementation, forty-five private universities adopted the ‘recommendation-based’ entrance examination method, in addition to six public universities (i.e., 4 national and 2 local public universities) (Tsugihashi 2019). In the following decades more private universities joined the pack. In 1991, over 350 private universities (i.e., three quarters of the private sector) adopted the selection method and admitted collectively some 35 percent of the sector capacity for the first-year students (Nakamura 1996).

In 1991 a series of liberal recommendations were submitted to policymakers and market-based education policy reforms followed. Of those recommendations, it was the report of the University Council of Japan (1991) that became the catalyst for subsequent waves of relaxations and deregulations in the state policies to promote individuality, diversity, and flexibility in the system (Amano 2010). The Central Council for Education report (1991) presents valuable insights into the background. Though the subject of the report was on the secondary education system, it clearly defined problems, deeply embedded in Japan’s socio-cultural and

economic institutions. In its opening section one finds a sort of a declaration of the installment of 'humanistic values' in Japan's future education policies and systems. More specifically the document makes recommendations to address the following areas of overdue, unresolved problems: 1) the mechanistic and instrumental view of education designed for the country's industrial developments, 2) social norms and psyche biased toward academic achievements and the resultant hyper-competition for entry to elite universities, 3) policy paradox in meeting two competing educational ideals: 'equality of educational opportunity' of the US model and 'efficiency' in the meritocratic, highly selective European elitist model, and 4) mental and opportunity costs to students in secondary education who were forced to persevere lengthy preparations for academic achievements as a ticket for an employment opportunity at elite companies and a prosperous life. In essence, the report redefined the meaning of higher education not for the state's socio-economic interests, but for the interests of students — i.e., well-being and diverse possibilities. The report ends with pleas for the support for their educational reforms to key stakeholders, such as industries (i.e., future employers in both public and private sectors), universities, upper secondary schools, and finally the families of students in secondary education. One of the education reforms had brought a far-reaching effect on Japan's university education in the following decades. In the same year, the long-standing Standards for the Establishment of Universities were revised, or relaxed. The regulations were originally introduced in 1956 to supervise and control organization of teaching staff, curriculum, location, physical plant, and equipment (Ministry of Education n.d.⁽⁵⁾). The reform brought more autonomy in the management of universities, especially in the private sector, to be more flexible, innovative, authentic in their administrations, student admissions, and teaching in pursuit of their superior services offerings. According to Amano (2010, 27), the prevailed air of 'political Americanisation' was present in the government into the new millennium and liberal reform policies were expected and delivered. In Amano's words (2003 in Igami 2010, 27), the state's education policy shifted from the conventional 'planned, or state controlled' education policy to the 'market-based' policy.

The number of private universities also grew from 372 in 1990 to 615 in 2020

University Education for Individual Capacity Building and Collective Sustainable Development (Miyamoto) with 74.0 percent of the private sector's student share. This increase in the private sector's share was made possible not only by the addition of newly established universities, but also by the diversification of teaching departments, or disciplines at well established universities. This proliferation of departments can be understood as the manifestation of intensifying marketisation of the university sector. Back in 1985 there were some 80 kinds of departments, counted by their domain titles; the number increased to 97 in 1990 and to 145, 235, 360 and 435 in every subsequent five years (Yoshimi 2018). Another noteworthy area of diversification in the university education system is additional entrance passages to university based on appraisals of diverse backgrounds of applicants like Admissions Office (AO) examinations and entrance examinations for those with unique educational backgrounds. Notably the AO examinations, which commonly do not involve the conventional academic entrance examinations and are held in a few months earlier than the conventional examinations, have become a notable entry passage to university since its introduction at *Keio Gijyuku University* in 1990. This admission method accounted only for 1.4 per cent of the new university entrants in 2000; yet its share increased to 8.5 percent in 2012 (MEXT 2013) and close to 10 percent in 2018 (MEXT 2020⁽³⁾). Here noteworthy are distinctive patterns in preferred entrance examinations methods between public and private universities. On the contrary to their conservative public counterparts, private universities have opened the door to substantially more students, taking advantage of the alternative entry pathways of 'by recommendations' and 'AO examinations'. In 2018, private universities admitted 253,386 new students (i.e., over 52 percent of the entire private sector intakes) via the non-standard academic entrance examinations whereas at national universities and local public universities those students accounted only for 15.8 and 27.4 per cent, respectively (MEXT 2020⁽³⁾). These findings support Amano's early observations of Japan's university education sector. That is, (n)ational sector being organised around elite institutions that do research and train high level professionals while the private sector must bear the burden of universal higher education (Amano 2010, 92).

Now there appears a controversial shift from the massification to the commoditisation of university education, phrased as *Zen-nyu Jidai*, literally the full realisation

of equal educational opportunity where the university sector has developed diverse enough to accommodate anyone desiring a place at a university. For example, in 1966 when the first wave of the First Baby Boomers arrived at the scene, there were 0.51 million university applicants but only 0.29 million found their ways to university education (MEXT 2013). The applicant admission rate of 57 per cent in the year is in line with the aforementioned rule of thumb of the 60 per cent of the university admission rate maintained back in the 1960s. Over years, the applicant admission rate has continued to increase, except for few years marked by the arrival of the Second Baby-Boomers to the scene, to 64.8 in 1976, (58.9 in 1992), 77.9 in 1999, 91.1 in 2009 and 93.7 per cent in 2019 (MEXT 2013 & 2020^③).

Discussions presented in this paper support Trow's (1973) theory of transformation of the higher education sector. Japan's university education sector has followed his projected developmental trajectory (i.e., elite to mass and mass to universal) in response to social, economic, and technological developments and the state's complete policy shift to the principles of 'equal educational opportunity' and market competition. Here the recent MEXT (2020^④) report sheds an additional insight in the fundamental changes taken place in Japan's university education sector in comparison to those experiences of Germany and the US. When examined by the private sector occupancy rate of university education by the institution number, Japan's situation resembles that of the US: 77.2 per cent (607 out of 786 total in 2019) of Japan and 74.0 per cent (2095 out of 2832 total in 2016) of the US. These figures make a stark contrast to Germany (i.e., 26 out of 181) where private universities counted only 26 out of 181 total (14.4 per cent) in 2017. Nonetheless, when these countries are compared by a share of the student enrollments by the private sector, Japan stands out for the greater role or contribution by the private sector. Japanese private universities collectively housed 74.0 per cent of 2.9 million university students while their US counterparts had only 36.4 per cent of the student share (5.0/13.8 million). In Germany, the share by the private sector accounted only for 1.5 per cent (0.3/1.8 million). Together with the earlier discussions, these international comparisons underscore the challenging nature and future of university education unique to Japan. That is, the over-dependence of Japan's university education on

the private sector and, thus, the persisting concerns among policy makers over the disparity in educational quality between the private and the public sector and more importantly, among private universities which have collectively driven the transformation of Japan's university education by riding the wave of equal educational opportunity and student diversity rhetoric. The challenge of the quantity-quality double hurdle will continue, with growing intensity, to test those in the university education system for innovative solutions.

Conclusion

This paper located the root cause of Japan's extended struggle in the state's institutional system and argues for the re-engineering of the state's institutional system. Focusing on education, in particular university education, for its critical role in institutional change, it reviewed and analysed the post-war development of university education in Japan to explore current and future challenges in university education in Japan. In the process, unfortunately, broken was one of Trow's Golden Rules for successful growth and diversity management in the progressive transformation of university education. Most notably, the process of the massification of university education since 1990 was facilitated and made possible with capacity expansion at elite and established private universities by the diversification of teaching departments, or disciplines, as well as new course offerings. This opened the entry gate for top-tier and second-tier private universities to those applicants who would not have qualified by the conventional academic admission standards, creating an academically diverse mix of students in classrooms. As known in the field of services (quality) management, a client herself is an important input as a participant to a service production/delivery process and plays a critical role in determining service outcomes. Introduction of substandard inputs into the process leads to poor service outcomes. However, paradoxically the solution for the problem of managing academically diverse students may be found in the task in hand — i.e., meeting the quantity-quality double hurdle, when the conventional university education service delivery model is redesigned by focusing on student diversity

other than academic competencies like diversity in values, talents, lived experiences and possibilities of the diverse students. The sequel to this volume will continue the inquiry by critically engaging with relevant literature on youth and Education for Sustainable Development, to generate necessary input information and knowledge for the final installment. The third volume of this monograph will discuss and propose an educational strategy to transform university education for a student's own capacity building for the future and our collective pursuit of sustainable development.

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