Chapter 17 The Development of Quality Assurance Practice in Japanese Universities

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Abstract In the era of globalisation, quality assurance mechanisms promote accountability and provide impetus for improving learning and teaching in Japanese universities. This chapter traces the development of quality assurance practices in Japan and situates it within the changing context of market forces and socioeconomic concerns in the Japanese society. We began our discussion with a brief description of the status of higher education in Japan before World War II, highlighting the important role of entrance examination as a critical step for assuring education quality. During the post-WWII period, the quality assurance mechanism was initially administered through an accreditation process based on the US model, which was later replaced by a system of self-monitoring and evaluation. Under the influences of marketization, the institution-based self-evaluation process was considered insufficient and third-party external review was implemented in 2000s. Looking into the future, we anticipate that the Japanese quality assurance system will be increasingly challenged by internationalization of higher education in Japan and other parts of the world.

17.1 Introduction

Japan has achieved a status of universal education in its higher education provision. According to the records of the Ministry of Education, Culture, Sports, Science and Technology (MEXT), there were 783 universities serving a student population of over 2,876,000 in 2012. Massification in higher education inevitably begets an

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immediate challenge for the need to develop a responsive quality assurance system accommodating an array of higher education institutions including post-secondary colleges, institutes, and private and public universities. Expectedly, Japan has developed complicated quality assurance processes in response to its sophisticated higher education system. However, significant issues such as student mobility (see Huang, 2016, Chap. 2 in this volume) and off-shore degree programs associated with globalisation will continue to pose a constant challenge to the Japanese quality assurance system.

Quality assurance processes are developed within the context of changing needs of the Japanese society. Our historical account of the quality assurance system in this chapter illustrates this important consideration. Another point for reflection is the need to understand quality assurance as both an official process governed by a statutory policy framework and as an unofficial engagement by key stakeholders including employers and students whose interest rests upon an effective educational system for delivering its anticipated outcomes. Exploring constructive ways to include voices from various stakeholders in the quality assurance process is a major direction for developing a quality assurance system that is responsive, accommodative and trustworthy. Yamazumi (2016) in Chap. 18 of this volume provides an example of how such a form of quality assurance can be developed to promote learning and teaching in teacher education programs. In this chapter, we provide a historical account of the development of quality assurance system in Japan's higher education sector.

17.2 Higher Education and Examination as Quality Assurance During the Pre-World War II Period

Between the sixteenth and mid nineteenth century, the central Shogun government (*Bakufu*) ran a feudal system in Japan, thereby closing most of the country for overseas powers. An exemption to this restriction was the Dejima port in Nagasaki, which allowed for Western influenced learning in medicine to take place. The development of the Japanese higher education system can be traced back to the nineteenth century, during which the Meiji Revolution took place. This revolution ended the feudal system and brought modernisation to Japan. A by-product of this development was that, from 1868, clans and private leaders in industrial and financial conglomerates (*zaibatsu*) in Japan established small higher education institutions.

The knowledge-seeking character of the Japanese nation, together with a large amount of international academic work being translated into Japanese, led to the development of modernised Japanese educational institutions in the Meiji era towards the end of the nineteenth century. During this period astronomy, mathematics, medicine, weaponry, Chinese literature, Chinese philosophy, Japanese history, Japanese linguistics and Japanese literature were researched and developed. In particular, Japanese research into astronomy and mathematics reached high international standards during this period. Modernising Japanese higher education

continued and this meant that instruction in Japanese was possible for most subjects at graduate level. Nevertheless, the demand for a performing higher education sector to suit a modern society had caused the Japanese government to hire 78 foreign teachers and send Japanese students to European and American universities. These foreign teachers provided immersion instruction to local Japanese students and brought a much-needed international perspective to Japanese higher education. In terms of lasting impact on the sector, it was the returning Japanese students who had secured jobs at national or local government institutions, or worked at universities in Japan that brought forward a new direction in Japanese higher education - the setting up of private universities. During this modernisation period in the history of Japanese higher education, Umeko Tsuda and Jo Niijima became well-known for their role as founders of the private Tsuda College and Doshisha College. Several Japanese flagship government universities were also established during this period; Tokyo University was established in 1877 and Kyoto University followed 20 years later. This trend continued well into the twentieth century, with the Japanese government establishing new imperial universities in 1907, 1910, 1918, 1931 and 1939.

Although the Japanese government concentrated their educational investments on these imperial universities, the establishment of private institutions with specific missions of promoting the development of democracy and independence of learning did not slow down. For example, Yukichi Fukuzawa established Keio Gijyuku as a Dutch-language school in 1858, which became Keio University in 1890. Shigenobu Okuma established a private Tokyo polytechnic school (*senmon gakkou*) in 1882, which became Waseda University in 1902. These private universities were officially recognised by the Japanese government in 1920. Other private polytechnic schools in Tokyo, such as the Tokyo Institute of Technology and Hitotsubashi were also established in this period, which were recognised as university institutions in 1929 and 1920, respectively.

Enrolment based on meritocracy, rather than students' social status has set Japanese imperial universities aside from top-ranked universities in the UK and USA, such as Harvard University, Cambridge University and Oxford University, where student selection was seriously skewed by social class. Students' performance in university entrance examinations was the sole consideration for enrolment in these leading Japanese universities. Private universities, being financially independent, had a further advantage of being able to recruit a large number of students and construct their own curriculum to focus on topics such as free society, freedom of speech, human rights, socialism and communism, which were not normally offered in government controlled universities. This tendency was enforced during the Taisho era, which took place between the Meiji and the Showa era and lasted from 1912 to 1926.

Prior to Japan's involvement in WWII, the Taisho Democracy ended when Emperor Hirohito, the successor of Taisho, reverted back to an authoritarian system. Freedom of speech was abandoned. During WWII, Japanese youths were required to join the army. By October 1944, 130,000 university students were recruited as soldiers and 6000 of them subsequently lost their lives in the war when they were forced to conduct suicidal air attacks. The fate for Japan changed for the worse after

American and British intelligence managed to break secret codes in telegrams which contained classified military information on routes of Japanese warships and targets of air attack. This was followed by massive destruction to major cities in Japan, of which the atomic bombings of Nagasaki and Hiroshima in 1945 are widely known. The Japanese government finally surrendered on 15 August 1945 and by that point in time, the number of war victims in Japan reached over 3.2 million. Understandably, this war had major consequences on the economic and educational climate in Japan.

Obviously, there was no formal quality assurance process and mechanism prior to the end of WWII. The responsibilities to ensure education quality resided with individual institutions and academics. Examination was seen as the most important means to upholding education quality during this period. Aligning with an elite higher education system, it can be said that entry examination was an effective way to assure quality outcomes, as the best possible students are recruited. Quality assurance was ensured through competitive and selective entry. The government control was seen mainly through its strict policies and rules governing the establishment of universities, which was relaxed in the post-war recovery. Nevertheless, selective entry still prevails today. This unofficial quality assurance process at the point of entry has served the Japanese system well in the past century. However, with the advancement of globalisation and oversupply of university places, this once effective mechanism for ensuring higher education quality has now become problematic. In particular, it has become untenable to base the pursuit for quality on selective entry, when the Japanese system has achieved universal access and alternative ways for entering university, even prestigious universities, are available in the twenty-first century.

17.3 Post-War Economic Recovery, Expansion of Higher Education and Quality Assurance

17.3.1 Japanese Economy in the Post-War Period

In July 1944, senior financial officers of 45 countries gathered to discuss an international monetary system that was designed to help restore the global economy. Named after the location where this system was founded, the Bretton Woods System contained four main agreements: US dollars would be the capital money, a gold standard was set with one ounce of gold being equivalent to 35 US dollars and with one US dollar being 360 yen at the time, the International Monetary Fund (IMF) would be established, and the International Restoration Bank, renamed World Bank in 1946, would be established.

The Bretton Woods System contributed significantly to Japan's post-war recovery. The agreed gold standard ensured the stability of the exchange rate and thereby promoting international trade between Japan and other countries. Utilising financial support from the World Bank, Japan was able to construct its bullet trains system (*shin-kansen*), the Tomei Highway, and the Kurobe Dam.

However, the financial situation changed worldwide after the so-called Marshall Plan had been established. This plan was initiated by the United States in 1947 in order for Western Europe to receive financial aid from the United States and to curb the spread of communism. The Soviet Union rejected the Marshall Plan and set up the Molotov Plan, which provided support to Eastern Europe. The money spent by the US government to assist post-war restoration in Western Europe created a situation where there were more US dollars circulating in the United States than there was gold to back it up. This inevitably led to a decrease of the value of the US dollar, which caused the then President of the United States Nixon to implement a series of economic measures. The last measure part of this 'Nixon shock' was a revision of the measures set by the Bretton Woods System: the Smithsonian Agreement. In 1971, ten countries decided to re-establish a fixed exchange rate internationally, but without the backing of gold. The value of gold increased from 35 to 38 US dollars and one dollar was then worth 308 Japanese yen, a decrease from the previous 360 yen. A continuing pressure on the official exchange rate of the US dollar eventually led to the adoption of a floating exchange system in 1973. This made the world economy sensitive to social instabilities and any minor changes of policy.

The Japanese economy recovered steadily during the post-war period and this resulted in the export of a great number of Japanese goods to the United States. In 1985, however, the G5 (United Kingdom, United States, France, Japan and West Germany) met in the Plaza Hotel in New York, to stop the overflow of Japanese goods in the United States, to discuss how to increase appreciation of the yen and how to reduce the value of dollars. As a result of this Plaza Accord, one US dollar devalued from 240 yen in 1985 to 70 yen in 1995 after fluctuating daily. Japan then faced serious trade friction, and the period after the Plaza Accord can be referred to as the 'lost 20 years of economic recession'. During this period, the 'bubble economy' took place; obtaining loans was made easy in order to stimulate the Japanese economy during times of decreasing export trade. Many Japanese corporations established local factories all over the world, thereby surpassing the lack of free trade agreements in Japan. The bubble economy ended in 1991, leaving the Japanese economy in a state of recession.

17.3.2 Expansion of Japan's Higher Education System and the Need for Quality Assurance

Immediately after World War II, the United States' Supreme Command of Allied Powers (SCAP) or General Head Quarters (GHQ) occupied Japan and implemented reforms such as the abolishment of financial conglomerates (*zaibatsu*) and carried out land reforms that aimed to reduce the power of wealthy land owners and give more land to the tenant farmers. GHQ also wrote an initial constitution, including the Educational Law. Traditionally, though, the Japanese establishment system relied on the system of charters based on strict legal regulations similar in those

found in Europe (Amano, 1986) for establishing universities. The post-war GHQ government relaxed the legal regulations governing the establishment of universities by following the American model using looser regulations. A new university system based on the American state university model has led the Japanese government to establish in each of its 46 prefectures at least one public comprehensive university. The principle of equal opportunities of education allowed for an increasing number of universities to accommodate the educational demand of the country. New universities were established in the post-war period in order to supply trained manpower to fuel the economy recovery.

Since relaxed standards of university establishment were adopted, there was a need to ensure education quality in Japan's newly developed university system. In 1947, the Japan University Accreditation Association (JUAA) was established as a voluntary organisation independent of the Ministry of Education for assuring education quality. JUAA functioned as a substitution for legal authorization by the Ministry of Education until 1956, after which the Ministry put more rigorous establishment regulations into place. Since the major cities were completely destroyed during the World War II, the JUAA assessment criteria initially focused on the external environments of educational institutions, such as the size of the campus, building areas, the number of lecture rooms relative to the number of students, the number of faculty staff per student and the number of books in the library. However, due to the voluntary nature, only a small number of universities were accredited by JUAA during the post-war period (Baba & Hayata, 1997).

Japan's higher education continued to expand steadily in response to the post-war economic recovery and the advance of the Bubble Economy. Growing demands for highly trained and skilled employees were unanimously found across different business and industrial sectors of the Japanese economy. As a result, 460 higher education institutions had been established by 1985, including 95 national universities, 34 public universities and 331 private universities accommodating a total of 1,848,698 students. A majority of these higher education institutions were privately set up and managed.

As access to higher education has become less competitive, academically less capable students who did not have a chance to secure a university place in the prewar period, were now accepted to various undergraduate programs. In response, higher education institutes were forced to provide remedial education to those who had not sufficiently learned foundation subjects in junior and senior high schools. Continuing its agenda on expanding the higher education sector, the University Council of Japan and the Japanese government deregulated the standards for university establishment (Yonezawa, 2002) in 1991. Prior to the deregulation policy, curricula of university education were strictly controlled. The need for quality assurance has become more acute as higher education continued to expand and students from diverse backgrounds were accepted into universities.

17.3.3 Quality Assurance Through Self-Monitoring and Self-Evaluation

In the absence of sanction or reward, not every Japanese university was accredited during the post-war period. In addition, cyclical review was not part of the accreditation and therefore limited effort was expended to continue reviewing the educational quality of universities that have been accredited by JUAA. Several important socio-economic factors have contributed to the need for institutional-based self-monitoring and evaluation. One of the most important considerations was the oversupply of university places and as a result there was keen competition between universities in student recruitment.

Against this background, the University Council made a recommendation to the Ministry of Education that universities should conduct self-evaluation and monitoring to ensure educational quality. Paralleling this call for self-monitoring on educational quality, the University Council also suggested the removal of control on university establishment allowing autonomy and flexibility in program design and curriculum development.

The self-evaluation initiative was welcomed by the university sector. Within a decade, over 90 % of universities had established institutional based policies and procedures governing the implementation of quality assurance through self-monitoring and self-evaluation (Shimizu, Baba, & Shimada, 2000). While some universities took a step forward and commenced external evaluation, the University Council did not favour the use of external quality assurance parties. Yonezawa (2002) described that few universities (15.1 %) utilised JUAA's external assessment.

Using a survey, Yonezawa (2002) investigated Japanese universities' engagement in self-monitoring and evaluation for quality assurance. The survey findings located several interesting differences in university's responses to self-monitoring and evaluation. A key difference was that private universities were more concerned about evaluation with students while universities offering studies on medicines, natural sciences and engineering focused more on items evaluating research activities. In short, institution-based evaluation varied across universities. Despite the differences in the focus of internal review across universities, self-monitoring and evaluation essentially endorsed management autonomy and this has contributed to re-engaging universities with quality assurance activities.

17.4 Market Competition and Quality Assurance by Third Parties

17.4.1 Globalisation and Japanese Economy Since 2000

The 'bubble economy' ended in 1991, as was the case with the communist Soviet Union. In the mid-1990s, globalisation became a buzzword to describe the growing integration of the international economy. The global economy transformed itself

into a freer competitive society, supported by the Washington Consensus. This agreement, presented in 1997 and adopted by the IMF and the World Bank, advocated a set of economic policies embracing the reduction of government controls, the reduction of government budget, and the promotion of privatisation and trade liberalization (McWilliams & Piotrosky, 2005). These neo-liberal economic principles have affected Japanese major national or public corporations and national universities. For example, the Japanese Highway Corporations was privatised in 2004, followed by the Japan Postal Service Public Corporation with 240.000 workers in 2005. From 1997, banks and security companies drifted toward bankruptcy. The twenty-first century started with the restructuring and amalgamation of corporations, which meant that many people lost their life-long employment opportunities. As a result, young generations now change jobs after 3 or 5 year of service. The Japanese tradition of loyalty to the workplace and life-long employment appears to have disappeared in recent years.

The reduction of government controls, hence the reduction of government budget and the increase of privatisation took place in higher education in Japan as well. In 2004, all national universities in Japan were incorporated. Just like private companies, the presidents of national universities were given more management autonomy and the funding came to be based on each institution's publicized 6-year goals and plans, along with the achievements of these goals. The principle of costeffectiveness was reinforced, making education an important industry in Japan. The privatisation of national universities, thereby forming corporate universities, reduced the government cost by 110 billion ven per year. The government offers operating cost to private universities by application, based on the explicit proposals of reforms made by private universities. However, there is still a big difference in government funding between corporate and private universities: in 2010, corporate universities received 1158.5 billion yen, compared to 439 billion yen for private universities; in 2014, 1130 billion ven went to corporate universities, and 320 billion yen to private universities. Depending on the performance and achievement, the former national universities will have to undergo drastic restructuring and downsizing.

17.4.2 Changing Work and Socioeconomic Conditions

Neoliberal principles of marketization, privatisation, efficiency and performativity have shaken an important work practice in Japan – life-time employment. Japanese companies, especially the big ones, used to operate on the practice of having a stable workforce and many of their employees had joined the companies immediately upon graduation. The key recruitment criteria were never based on knowledge or special skills, but rather focused on the university candidates had graduated from. Graduating from a prestigious university is considered a guarantee of life-time employment in established Japanese enterprises. Supporting this practice of

recruitment was the notion of so-called 'trainability': the potential ability of graduates to work effectively after receiving on-job training. Graduates' learning and achievement at the university was not an important consideration, since the business sector was prepared to spend tremendous levels of cost to train graduate employees. Due to this recruitment system, high school students work hard to pass entrance exams to prestigious universities. Cram schools, where students spend a significant amount of time learning exam-taking skills and completing mock exam papers, became popular throughout the educational system. This created the so-called 'education fever' and 'entrance exam hell' in the Japanese society. Learning pressures became so strong that some pupils committed suicide after failing to deal with examination pressure or not passing the entry examinations.

Nevertheless, the work conditions have changed in Japan. The practice of lifelong employment is increasingly considered ineffective, costly and failing to improve productivity. Japanese employers have begun to put more emphasis on university education and demand graduates to demonstrate the required knowledge and skills critical for employment. Due to the high cost involved in on-job training, Japanese employers expect that university education and training are transferrable to the workplace. Inevitably, Japanese employers have to engage in a competitive process to locate and recruit capable graduates who require limited training. In the past, Japanese companies often held their career talks with university students 2 years before their graduation. On recognition that graduates should spend more time on their education and developing critical knowledge and skills for work, Japanese companies were encouraged to delay their recruitment process. For example, the Federation of Economic Organisation, the nation's most powerful business lobby group with 1300 major Japanese companies among its members, urged member firms in 2012 to start holding explanatory sessions after the second trimester for third year students. In 2014, the starting date of the career sessions was even moved to the first term for students in the final year of their studies. This means that job hunting was no longer an immediate concern for students in their second or third year of their degree program. This arrangement with the business sector helps shift students' focus to learning and also sends an important message to the university that the business and industrial sectors expect graduates with a high level of employability.

In response to this call for ensuring employability, many Japanese universities introduced internship and other work experience components with local and international companies in their degree programs. Another factor that has heightened the need for Japanese universities to examine their practices in light of students' employability is the widespread of unemployment among graduates. According to the Ministry of Education and Labor, as of October 2010, only 57.6 % of university students scheduled to graduate in March 2011 had already secured job offers for after graduation. In the context of youth unemployment, 140,000 university graduates failed to find jobs which accounted for 30 % of the total population of unemployed youths. The oversupply of university places and alternative access to university education are of course important factors that have contributed to the

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issue of unemployment among university graduates. To increase youth employment, the Japanese government provided subsidies to companies that employ university graduates within 3 years of graduation.

Several observable changes within the Japanese society have also contributed to destabilizing the notions of life-time employment and trainability. First, the family system in Japan has changed. The respect for elders and seniors originated from the Confucian tradition deteriorated. Three-generation households were no longer the norm in Japan and many nuclear families arose out of intergenerational tensions that had grown intolerable. Second, at the personal level, Japanese are keen to pursue personal fulfilment and have begun to value personal achievement to an extent that the collective interest is no longer a consideration in employment within in a company. Often, young Japanese do not stay in a job for more than 5 years and the acceptance of an unmarried life as a way for broadening horizons and freedom from parental burden has fuelled this process of employment mobility. On the positive side, career-minded women are increasingly turning their backs on marriage and significantly expand the employment pool, which undoubtedly will worsen the unemployment issue. However, from the employer's perspective, this means that it will be easy to fill up vacant positions with capable employees from both genders. This tendency became more observable after the introduction of equal opportunities programs among female and male workers in 1985. Expectedly, this has set off chain effects in the Japanese society resulting in low birth rate and an aging society.

17.4.3 Changing University Environment

Japanese universities are not immune for the global waves of change. Marketisation and competition at the global level have already induced new policy directions governing student selection, curriculum design and work focus. At the turn of century, several observable trends were at force in Japanese universities, including internationalisation, curriculum reform for global engagement, and competition for research funds and improving global ranking. These trends do not just influence learning and teaching in Japanese universities, they also beget a need for more concerted efforts on assessment of education quality. To a great extent these trends are responses addressing the changing needs of the Japanese economy, especially in relation to maintaining competition and promoting employability.

The rapid invasion of the global economy into the Japanese society resulted directly in a policy response through internationalisation in the higher education sector. The Japanese government provided competitive funding in the form of key initiatives, including Global 30 in 2011, Global Leadership Studies in 2013 and

Super Global Universities in 2014. In accordance with the Global 30 policy, 13 public and private universities received government funding to promote internationalisation of higher education by offering degree programs using English as medium of instruction to attract internationals students. Under this scheme, new degree programs such as the Double Degree Program conducted through collaboration with top ranking universities in other parts of the world offer study abroad experiences and have been used to recruit foreign students.

As part of the internationalisation process, many university programs have incorporated global engagement as a major learning focus and outcome. An exemplary model is the establishment of Global Leadership Studies. This curriculum program is inter-disciplinary and multi-national in nature. Participating students engage in inter-disciplinary studies of global issues, such as global warming, the aging society, disaster management and epidemics. Face-to-face interactions, cyber interactions and on-demand lectures in relevant subject matters by the prominent experts in the field are provided. These arrangements provide students with abundant opportunities to discuss their understanding of and solutions to problems caused by globalisation and global economy, thereby inducing the development of inter-cultural understanding and appreciation of multiple perspectives.

As an extension to the Global 30 policy, the Super Global Universities initiative aims to raise the standards of research universities and improve Japanese universities' global ranking. This initiative will run until 2023 with a designated budget of \(\frac{\text{\frac{47.7}}}{1.7}\) billion granted through a competitive process. It is now customary that individual professors have to submit research plans for seeking competitive research grants to the government almost every 3 years, or annually to their employing university. This new funding practice promotes research engagement and productivity, which is a stark contrast to previous practice that assigned research funds to professors annually without undergoing any rigorous assessment.

The pursuit for global competitiveness has radically changed the learning environment in many Japanese universities (cf. Yonezawa, 2007). The overall student population grows, and the number of students coming from overseas and going overseas is on a sharp rise as well, as a result of the internationalisation policy. Japanese students are given more opportunities to learn about the changing world and more importantly the internationalisation policy brings many opportunities to interact with students from different parts of the world. At the university level, the internationalisation policy challenges university academics to reform their learning and teaching practices to meet students' changing needs, which is certainly an important criterion for assessing education quality. Japanese universities' research productivity is of course another important area of assessment in quality assurance. The crunch question concerns the extent to which education and research qualities can be assessed efficiently by self-monitoring and evaluation while facing these changes within the university sector and those in different parts of the Japanese society (Yonezawa & Mori, 2009).

17.4.4 Third-Party Evaluation

Responding to new waves of changes driven by globalised changes, the Japanese quality assurance system can no longer rely solely on self-monitoring and self-evaluation processes, as these institution-based efforts still lack an objective base for ensuring education quality that is derived from a consistent set of assessment criteria that can be applied to different higher education institutions. External third-party assessment based on a set of unified criteria is urgently needed to support the pursuit of performance for the higher education sector as a whole. In response, the Japanese government amended the School Education Law in 2002 and stipulated the requirement of engaging in a third party external assessment by an accredited agency through a cyclical process for all universities, colleges, law and other post-graduate schools. Universities and colleges are evaluated once every 7 years on their teaching, research, management activities. A 5 year cycle was designed to evaluate graduate schools' goals, curriculum design and teaching activities. The corporatization of national universities in 2004 can be seen as part of the government's pursuit of accountability, transparency and performance.

Some may consider that the Japanese quality assurance system has become centralized as a result of the stipulation of external assessment. It is in fact the first time in the Japanese history that all the universities are held accountable for their practices and outcomes. Nevertheless, a more accurate description is that the quality assurance system itself has become diverse. The self-monitoring and self-evaluation processes still continue, and form an important step for external third-party assessment. In other words, two layers of accountability have been installed for all the higher education institutions in Japan since 2002. This is in line with an international trend that upholds the importance of accountability and transparency in informing the design of quality assurance practices in other parts of the world (e.g. Dill, 2000).

Within the past decade, several major agencies were certified to conduct thirdparty external assessment on education quality. The Japan University Accreditation Association (JUAA) was certified by the MEXT in 2004, as the first certified evaluation and accreditation agency for universities. JUAA performs certified evaluation and accreditation activities in seven categories of educational institutions: universities, junior colleges, law schools, professional graduate business schools, professional graduate schools of public policy, professional graduate schools of public health, and professional graduate schools of intellectual property studies. JUAA conducts external assessment in two focused areas, assuring the quality of university education and supporting improvement through accreditation processes by monitoring performance based on subsequent progress reports. The JUAA evaluates educational organisations based on ten criteria (see Appendix). Two other certified agencies for conducting third party external assessment are the National Institution for Academic Degrees and University Evaluation (NIAD-UE) and the Japan Institution for Higher Education Evaluation (JIHEE). Both NIAD-UE and JIHEE were officially certified to conduct external assessment on university education and research activities in 2005. Their goals and focuses on assessment are similar to those of the JUAA. The external assessment conducted by JUAA, NIAD-UE and JIHEE is comprehensive, covering university operations and practices in management, admission, teaching, learning and research using a set of criteria to decide whether an institution meets the standard. As data driven assurance processes are used, these agencies require the targeted university to compile and submit self-monitoring and evaluation reports prior to the conduct of official visit by external examiners. This rigorous process ensures that higher education institutions play an active role in the external assessment by these government-certified external agencies.

In addition to these MEXT-certified agencies described above, the Japan Accreditation Board for Engineering Education (JABEE) was also certified to conduct external assessment. JABEE is a voluntary third-party accreditation organisation established in 1999. JABEE was established to foster international collaboration and to contribute to professional development through accreditation of education programs in engineering, agricultural and science departments in higher education institutions. In 2010, JABEE was officially certified as an evaluation and certification agency for Professional Graduate Schools in the industrial fields of information technology, engineering, and nuclear Technology. JABEE uses four 'common criteria' to accredit education programs: learning outcomes, educational methods, achievement of learning outcomes, and educational improvement. A special effort is made to ensure that the Japanese qualifications in these professional areas are recognised internationally and that graduates from these science programs are capable of seeking employment in local and international markets.

17.5 Future of Quality Assurance in Japan

In concluding our discussion of the development of quality assurance practices in Japan, it is important to point out that quality assurance and influences arising from political and socioeconomic areas are intricately related. To a great extent, quality assurance practice is reflective of salient political and socioeconomic influences, as illustrated in the Japanese case in this chapter. In the era of globalisation, these influences on quality assurance are not confined to changes within the national boundaries. More often than not, pervasive influences are derived from global changes and megatrends induced by globalisation, which in turn, trigger the formulation of new policies, initiatives and practices responding to these globalised changes. The installation of third-party external assessment practices on quality assurance is illustrative of this complicated process.

With the advancement of globalisation, transnational cross-border external examination may soon be a new challenge that might reform quality assurance processes in Japan and other parts of the world. In 2012, the OECD proposed the guidelines for quality provision in cross-border higher education (Vincent-Lancrin &

Pfotenhauer, 2012). Many countries have begun the process of considering and developing the national frameworks for quality assurance, accreditation and recognition of qualifications to meet the needs of international qualification standards (cf. Yonezawa & Meerman, 2012). In Japan, the JABEE has already taken international recognition and transferability into consideration for assessing degree programs for science and engineering professionals. Following this trend, it is recommended that the three MEXT-certified accreditation agencies should actively pursue international recognition of accredited qualifications, which will ensure that Japanese university qualifications are recognised as meeting international standards. To achieve this, certified accreditation agencies in Japan should seek participation in the work of international quality assurance agencies such as the International Network for Quality Assurance Agency in Higher Education (INQAAHE) and the Asia Pacific Quality Network (APQN).

17.6 Conclusion

As can be seen in the case of Japan, quality assurance is increasingly becoming an open system responding to societal and economic changes. As higher education evolves in unexpected ways, the new educational landscape demands innovation and flexibility from the institutions which serve Japanese learners. Beyond high school, more students than ever before will likely to adopt a 'cafeteria approach' to their education and take classes at multiple institutions; a few could stem from MOOCs, some from a university abroad and some from other institutions within Japan. Japan aspires to develop a world-class higher education system which creates new knowledge, contributes to economic prosperity and global competitiveness. In this context, Japan needs to build on its comprehensive higher education system and has to ensure that higher education is accessible to all citizens in Japan throughout their lives. The educational system should give students in higher education the workplace skills they need and at the same time students should be instructed to adapt to a rapidly changing society. Smith (2016) in Chap. 16 of this volume argues that integrating work based learning and skills in university courses and programs poses a challenge to assessment design and quality assurance. From a student's perspective, they are expected to benefit from these new forms of learning in their university education and be able to adapt to a world and work environment altered by technology, changing demographics and globalisation. In this everchanging educational landscape, quality assurance plays a significant role not just in assuring educational quality but also providing impetus and means for reviewing, evaluating and improving university education quality. Urgent attention is required for international cooperation on designing quality assurance frameworks to cover learning and teaching activities that are conducted in off-shore programs and international campuses.

Appendix

Ten criteria for the quality assurance and accreditation by JUAA

Criteria	Explanation
1. Mission and goals	Universities must define appropriate goals based on their own mission for the objective of cultivation of human resources and other objectives in education and research, and must make them public
2. Educational and research structure	Universities must establish necessary structures to carry out educational and research activities based on their own missions and goals
3. Faculty members and faculty structure	Universities must clarify the ideal image of faculty members and the policy for organizing faculty structures in order to realize their own missions and goals, and use these as a basis to develop their faculty structures
4. Educational program, instruction and outcomes	Universities must specify educational objectives and use them as a basis to clarify their diploma policy and curriculum policy in order to realize their own missions and goals. Universities must also follow such policies to develop and enrich their educational programs and instructions to achieve sufficient educational outcomes, and confer degrees appropriately
5. Student admissions	Universities must stipulate proper admission policies in order to admit students in a fair and correct manner in accordance with their own mission and goals
6. Student services	Universities must provide satisfactory services for learning support, student support and career path support so that students can concentrate on their studies
7. Educational and research environment	Universities must develop and manage appropriately a learning environment and an educational and research environment that enables students to study and faculty members to carry out educational and research activities in a necessary and sufficient manner
8. Social cooperation and social contribution	Universities must consider ways to cooperate with society, as well as openly contribute the results obtained from their educational and research activities
9. Administration and financial affairs	Universities must carry out appropriate administration and management in accordance with written rules and regulations in order to exhibit their functions smoothly and sufficiently. Universities must also establish the appropriate organization for clerical work, as well as establish and manage a necessary and solid financial base in order to support, maintain and improve education and research
10. Internal quality assurance	Universities must develop a system for assuring the quality of their education, regularly conduct self-studies, and publish information about their current state in order to realize their own missions and goals

 $Source: Japan\ University\ Accreditation\ Association\ (2010),\ pp.\ 1-3,\ retrieved\ from\ http://www.juaa.or.jp/en/images/accreditation/standard_university.pdf$

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