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Is the Asian quality assurance system for higher education going glonacal? Assessing the impact of three types of program accreditation on Taiwanese universities

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Is the Asian quality assurance system for higher education going glonacal? Assessing the impact of three types of program accreditation on Taiwanese universities

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Tertiary education institutions are currently learning to integrate and balance the needs of varying stakeholders, including local students, national governments, and the global market. These three dimensions combine into the concept of a 'glonacal' – global + national + local – region of higher education. At the same time, quality assurance influences higher education in terms of policy decisions and processes, putting more emphasis on teaching as a core function of universities, and leading to an increased bureaucratization and heavier administrative workload. Yet, there is little evidence of the consequences of the glonacal approach for the quality of teaching and learning within universities and colleges. The main purpose of this paper is to assess the impact of the glonacal quality assurance system of Asian higher education through a case study of the effects of three program accreditations on higher education institutions in Taiwan (Higher Education Evaluation & Accreditation Council of Taiwan [HEEACT], Association to Advance Collegiate Schools of Business International [AACSB International] and Institute of Engineering Education Taiwan [IEET]).

Keywords: glonacal; quality assurance; accreditation

1. Introduction

Over the past decade, all Asian nations have developed their own quality assurance systems by setting up national accreditors whose principal role is to accredit local tertiary education institutions and academic programs. Prior to the establishment of these national accreditors, local accreditors had emerged in some Asian countries, such as the Japan University Accreditation Association, founded in 1947, the Shanghai Education Evaluation Institute in 1996, and the Institute of Engineering Education Taiwan in 2003. Currently, half of the Asian nations have more than two accrediting bodies, including Japan, Hong Kong, the China, Philippines and Taiwan (APQN 2012a).The local accreditors are self-funded agencies, 'without any intervention of central governmental in [their] establishment or functioning' (Martin and Stella 2007, 82). Their role

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has been to undertake review of certain groups of universities or types of programs, using a voluntary approach.

In recent years, the globalization of higher education has provoked a growing number of international exchanges between higher education institutions from various countries. This increasing level of student mobility is leading to more cross-border quality review activities, and to continued discussion of national, regional and international standards for higher education quality (Knight 2007).

The international capacity of higher education systems is closely entwined with national economic growth. Scott (2011, 73) stated twin beliefs about the quality of international institutions: 'the quality of reputation of individual universities now is linked directly to the intensity of their global involvement and the global market super-sedes national public service.' According to Scott's observation, the more global the universities are, the more highly recognized they will be in the region and worldwide.

In response to the growing global reach of higher education, some Asian nations started to welcome international accreditors, particularly US accreditors, to provide cross-border quality assurance services for local institutions (Hopper 2007; Ewell 2008). This led to demand by governments and institutions for international accredita-tion to be integrated into the national quality assurance framework (Woodhouse 2010; Stella 2010). The emergence of three types of accreditors, at local, national and global levels, meant that a 'glonacal' (global + national + local) quality assurance system was implicitly formed in some countries, including China, Hong Kong, Japan, Malaysia and Taiwan. Some Asian nations with a developing higher education system as well as a young quality assurance agency, e.g. Cambodia and Vietnam, have remained in the 'non-glonacal' framework of quality assurance.

It is agreed that 'ideally the review processes will have encouraged and convinced higher education institutions to adopt more robust mechanisms for continuous quality enhancement, more rigorous self evaluation, increased transparency, and a better under-standing of the notion of quality and best practices' (Zoqaqi 2011, 3). In 2011, the Inter-national Network for Quality Assurance Agencies in Higher Education (INQAAHE) conducted a project focusing on the impact of quality assurance on higher education in seven Latin American countries. It was found that quality assurance has both positive and negative impacts on higher education, including its influence on policy decision and processes, and increased value placed on teaching as a core function of universities, leading in turn to an increased bureaucratization and a heavier administrative workload. The study also showed that most positive consequences were occurring at the program level (Lemaitre et al. 2011). Nevertheless, there is still little evidence of the impact of quality assurance on universities and colleges, although many countries have set up a national quality assurance system and many higher education institutions have gone through accreditation processes including on-site visits and the preparation of self-study reports.

A decentralized system of quality assurance framework in Taiwanese higher edu-cation did not exist until a national accreditor, the Higher Education Evaluation & Accreditation Council of Taiwan (HEEACT), was established in 2005 with funds from the government and 153 colleges and universities. With a compulsory approach, HEEACT was commissioned by the Ministry of Education (MOE) to conduct the first cycle of program accreditation of Taiwan's higher education institutions in 2006 (HEEACT 2012). Prior to the establishment of HEEACT several Taiwanese univer-sities which wanted to sharpen their global competitive edge sought out international recognition from the Association to Advance Collegiate Schools of Business

International (AACSB International) in the early twenty-first century (Hou 2011a). AACSB International, a US professional accreditor in business, has been implementing global accreditation abroad for many years and now accredits programs in over 38 countries, including five institutions in Taiwan (see the AACSB International website at http://www.aacsb.edu/). Complementing national and international accreditors, the Institute of Engineering Education Taiwan (IEET) is a local engineering accreditor chartered by the Taiwan government in 2003. It was successfully supported by The Washington Accord signatories as a Provisional Signatory of the Accord at the 2005 International Engineering Meetings (IEM) and became a formal signatory of the Accord in 2007 (IEET 2011). So IEET was initially regarded as a local accreditor, but has become internationally recognized. In 2009, the MOE announced an exemption policy for these internationally accredited programs of Taiwanese institutions in order to encourage universities' internationalization and reduce accreditation redundancies (MOE 2009). In other words, if a program has been accredited by either AACSB International or IEET, then that accreditation outcome would be directly recognized by HEEACT.

Any type of accreditation has a significant impact on Taiwanese higher education institutions. The impacts of accreditation on institutional practices have been widely discussed in Taiwanese society. HEEEACT accreditation has recently been under severe criticism from some Taiwanese scholars who have claimed that its accreditation violates institutional autonomy (Tai 2012). In contrast, Taiwanese university administrators' attitude toward the AACSB International and IEET accreditations has tended to be very positive (Chan and Yang 2009).

Taiwan is the only Asian country implementing an exemption policy for three types of program accreditation outcomes under its glonacal quality assurance framework. This makes it worthwhile to assess coexistence and mutual recognition among international, national and local agencies. The main purpose of the paper is to analyze the development of a glonacal quality assurance system in Asian higher education in order to find out the level of actual impact it has had on higher education and its varying stakeholders. Based on two surveys conducted by HEEACT and the Taiwan National Science Council (NSC) in 2010 and 2011, the impacts on administration, curriculum design, faculty efficiency, learning outcomes, resources allocation and internationalization of these three program accreditations (HEEACT, AACSB International and IEET) of Taiwan will be analyzed as a case study.

2.   The quality assurance framework for Asian higher education in a glonacal context

2.1   *Quality assurance at global, national and local scales in Asia*

Higher education has always been global, national and local at the same time. As stated by Marginson, Kaur and Sawir (2011, 5), 'from its beginning, the university was always rooted in local settings, while at the same time it connected to a larger international field of knowledge'. As the world is getting flatter, higher education systems, the institutions that comprise them, and educational policy makers are all supposed to interact simultaneously in the global, national, and local contexts. Simon Marginson, a prominent Australian scholar, called this higher education phenomenon in the twenty-first century the 'glonacal' era (Marginson 2011). According to Marginson (2011), the institution itself, as a local organization, needs to respond to national policies in culture, polity and

economy. With governmental support, local institutions will be able to develop their competitiveness successfully at the global context. Institutions are learning to integrate and balance the needs of varying stakeholders, including local students, national governments, and the global market, into the three dimensions of a glonacal area of higher education, in which 'activity in each one of the global, national, and local dimensions can affect activities in the others' (Marginson 2011, 14).

Asian higher education has responded in various ways to glonacal trends, e.g. with growing social demand, privatization, accountability, marketization and economic growth. This response included the development of external quality assurance systems at the national level (Martin and Stella 2007). As higher education institutions in Asia are going from local to global, they expect to be assessed by authorities higher than the national level, to ensure graduate mobility and degree recognition. Within the global context, quality assurance services in Asia started to develop internationally in response to this pressure, leading to the emergence of international accreditors, particularly professional accreditors (Ewell 2008; Hou 2012a). The number of professional accreditors, in fields such as business, engineering, medicine, nursing, architecture, and education, has increased rapidly due to the international mobility of graduates (Woodhouse 2010). Recently, these professional accreditors, especially US business and engineering program accreditors, have begun to accredit academic programs abroad as well as at home. For the purposes of increasing reputation and safeguarding enrollment, Asian institutions prefer to get international recognition rather than national and local accreditations. Hayward (2001, 6) also pointed out the popularity of US accreditors: 'Some foreign colleges and universities want US accreditation because it is, at least at the moment, "the gold standard" in many areas of higher education.' Ewell (2008, 153) responded that 'US accreditation may provide an additional cachet in a competitive local market especially for private institutions.' Obviously, international accreditation is sought by more and more institutions abroad as higher education globalizes in a very competitive manner (Morse 2008; Hou 2011a, 1). Therefore, no matter whether international accreditation is pursued by institutions voluntarily or under pressure from governments, it is likely to introduce 'a commercial dimension to accreditation practices and the desire for institutions or providers to have as many accreditation labels or stars as possible' (Knight 2005, 2).

The rapid expansion of international accreditation has led to national and local accreditors internationalizing their operations and recognizing each other's accreditation outcomes through joining international networks, such as the Asia Pacific Quality Network (APQN) Global Initiative for Quality Assurance Capacity (GIQAC) project, or the signatories to the Washington Accord (Hou 2012a). In 2010, with governmental support, four Asian national accreditors – the Australian Universities Quality Agency (AUQA), Malaysian Qualifications Agency (MQA), Indian National Assessment and Accreditation Council (NAAC), and New Zealand Universities Academic Audit Unit (NZUAAU), selected by the APQN's GIQAC project, launched the initial stages of mutual recognition procedures (APQN 2012b). Asian members of the Washington Accord are local engineering accreditors which agree on 'governing mutual recognition of engineering qualifications and professional competence' globally in order to 'advance benchmarking and mobility in the engineering profession' (International Engineering Alliance 2011a, 1). At present, there are six Asian members of the Washington Accord, including the Institute of Engineering Education Taiwan, the Hong Kong Institution of Engineers, Japan's Accreditation Board for Engineering Education, the Accreditation Board for Engineering Education of Korea, the Board of

Engineers Malaysia, and the Institution of Engineers Singapore (International Engineering Alliance 2011b).

The quality assurance framework in Asian nations is affected by three dimensions that have started to converge slightly into a glonacal context of higher education (Ewell 2008; Marginson 2011; Hou 2012a). Glonacal quality assurance systems consisting of local accreditors, global agencies and national bodies have already become standard practice in many Asian nations. They interact with each other and have different impacts on higher education institutions.

2.2   *Glonacal quality assurance frameworks in Taiwanese higher education: HEEACT, AACSB International and IEET*

As the number of Taiwan's higher education institutions increased dramatically from 50 to more than 160 over the past two decades, the government was pressured by the public to maintain and increase both quantity and quality. In 1994, Taiwan's Congress, the Legislative Yuan, passed the University Law, which stated that the national government is entitled to university evaluation in order to assure higher education quality. In 2005, the Ministry of Education revised the University Law, stipulating that 'universities should periodically undergo self-evaluation on teaching, research, service, counseling, administration, and student engagement; evaluation guidelines should be set forth by each university' (MOE 2005, 1). Under the law, the Ministry of Education funded the establishment of HEEACT. In fact, several local accreditors had already begun providing quality assurance services to Taiwan's institutions prior to HEEACT, e.g. the Taiwan Assessment and Evaluation Association (TWAEA), which mainly undertakes institutional assessment of universities of technology (UTs). The difference between local accreditors and HEEACT is that these accreditors are self-funded institutions offering services on a voluntary basis. Those who voluntarily apply for local accreditation have to pay the fees by themselves. However, their accreditation outcomes would be recognized by the HEEACT if they are recognized by the Local and International Accreditors' Recognition Task Force assembled by MOE (MOE 2009).

Up to 2012, the Task Force has recognized one national and three local accreditors, and two US accreditors, including HEEACT, TWAEA, IEET, Accreditation of Chinese Collegiate School of Business (ACCSB International), AACSB International, and the Middle States Commission on Higher Education (MSCHE). HEEACT, AACSB International and IEET are described as below as representatives of the various types of accreditation.

(1)   *HEEACT accreditation*

As a national accreditor, HEEACT has conducted a mandatory program of institutional accreditation according to the revised University Law. The external review costs are to be completely covered by the MOE. In 2006, HEEACT began a five-year, program-based, and nationwide accreditation. The second cycle of program accreditation is being undertaken from 2012. Starting in 2011, HEEACT was commissioned to undertake a comprehensive institutional assessment of 81 four-year public and private universities (HEEACT 2012).

The standards developed by HEEACT in the first cycle of program accreditation are as follows: (1) goals, features, and self-enhancement mechanisms; (2) curriculum design and teaching; (3) learning and student affairs; (4) research and professional

performance; and (5) performance of graduates. There are three types of accreditation outcomes, including 'Accredited,' 'Accredited Conditionally,' and 'Denial' (HEEACT 2012). According to HEEACT, the average rate in the first cycle for accredited status among a total of 1870 programs is 86.11%, for conditionally accredited 11.84%, and for denied 1.97% (HEEACT 2012).

Administrators at Taiwan's higher education institutions realize that a pass in the evaluation exercise is vital for the survival of an institution, due to the transparency of the outcomes. A detailed final report on each program as measured by five standards is published on HEEACT's website. Those who failed to pass the HEEACT accreditation are required to make improvements according to the comments in the final report, and are reviewed a year later. The failed programs will be eventually penalized by the MOE, to reduce 50–70% of the enrollment (MOE 2005). Although the MOE claimed that it would not force universities to close the unaccredited programs, most institutions wisely chose to close or merge them in order to avoid damaging the university's reputation.

Following global trends in quality assurance, HEEACT's accreditation in the new cycle focuses on the assessment of student learning outcomes. The second cycle of program accreditation aims at developing student learning outcomes assessment mechanisms within programs and disciplines.The new accreditation model has been adopted to assist universities in analyzing their strengths and weaknesses to facilitate successful student learning. The new standards for the second cycle of program accreditation are as follows: (1) educational goals, features and curriculum design; (2) teaching quality and learning assessment; (3) student guidance and learning resources; (4) academic and professional performance; and (5) alumni performance and self-improvement mechanisms (HEEACT 2012). Generally speaking, universities and programs are encouraged to develop measurable learning outcomes, to develop a variety of assessment tools at the course, program and institutional level, and to establish whether the learning outcomes are met (Hou 2010).

(2)   AACSB International accreditation

Business program accreditors, such as AACSB International, have great ambitions in international accreditation. Established in 1916, AACSB International has aimed to provide 'its members with a variety of products and services to assist them with the continuous improvement of their business programs and schools' through a set of standards on school missions, governance, faculty qualifications and student learning (http://www.aacsb.edu/). AACSB International accreditation emphasizes that various stakeholders, including students, parents, and employers, should be provided with top-quality business education. In 1991, AACSB International began its international accreditation activities, expecting that the accredited institutions would be given many benefits by 'attracting higher quality students, providing greater research opportunities, and allowing for global recognition.' In 2011 there were 1182 AACSB International members, including 633 accredited institutions. Of the total number of AACSB International accredited institutions, 57 are from Asian countries, 9% of the total. In 2011, five Taiwanese business schools were granted AACSB International accreditation (see Table 1).

To become AACSB International accredited in business and/or accounting, an institution must satisfy the eligibility requirements and the 21 accreditation standards in three sections, including strategic management, student and faculty, and assurance of learning.

Table 1.   Number of AACSB International accredited institutions from Asian countries.

Country	No. of accredited schools	Country	No. of accredited schools
Australia	10 (2)*	South Korea	9
Hong Kong	7 (5)*	Thailand	1
Mainland China	5	Turkey	1
Taiwan	5	Singapore	3 (2)*
Israel	1	Saudi Arabia	1
Japan	2	United Arab Emirates	3
Kuwait	1	Philippines	1
Lebanon	1	New Zealand	6 (1)*
Total: 57 (9% of AACSB International's total)			

Source: AACSB International (2011).

*The number of schools accredited in both business and accounting are given in brackets.

AACSB International's international accreditation has a great impact on accredited institutions in many ways, especially on internationalization, governance, and assurance of learning. According to 2009–10 collaborations survey data (AACSB International 2011), there are 3950 unique collaborations between AACSB International member institutions. Of these collaborations, 95 involve more than one partner institution, and only 77 involve partner institutions in the same country. As the third largest region next to Western Europe and North America, Asia's collaborations included Singapore (228), China (64), and the Philippines (37) respectively. The survey showed that 83% of respondents agreed that AACSB International accreditation assisted them to 'collaborate and partner with other high-quality business programs/schools in their country or region' (AACSB International 2011).

In addition, some studies discovered that AACSB International accreditation gave local deans of business schools better opportunities to manage the institutions as well as to consolidate their institutional positions within the universities (Cret 2011). Developing an Assurance of Learning (AoL) system is one of the major components for AACSB International accredited programs whose 'learning goals should align with a school's mission, and outline the knowledge, skills, and capabilities a graduate should possess when leaving the school' (http://www.aacsb.edu/). Hence, faculty members are supposed to be involved to a far greater extent than they were before, particularly in developing learning goals, objectives, measurable outcomes, and assessment tools, etc. (Matrell and Calderon 2005; Hazeldine and Munilla 2004). However, other studies also show that how to measure what students have learned is still a big challenge for most institutions (Pringle and Michel 2007).

(3)   IEET accreditation

Founded in 2003, the Institute of Engineering Education Taiwan (IEET) is an independent, non-governmental and self-funded organization committed to the accreditation of engineering and technology education programs in Taiwan. It was formally recognized by the Local and International Accreditors' Recognition Task Force in June 2010 (IEET 2011). IEET has implemented accreditation in the fields of Engineering (EAC),

Computing (CAC), Technology (TAC), and Architecture (AAC). To assist graduates in accredited programs for entry to the practice of engineering, IEET applied and was admitted to the Washington Accord as a full signatory in 2007. In 2009, IEET was accepted by the Seoul Accord on accreditation of Computing and IT-related programs as a full member. The Washington Accord and Seoul Accord are international agreements among bodies responsible for accrediting engineering degree programs. They 'recognize the substantial equivalency of programs accredited by those bodies and recommend that graduates of programs accredited by any of the signatory bodies as having met the academic requirement' for entry to the professional practice (International Engineering Alliance 2011a, 2011b). IEET's accredited programs are currently recognized by the governments of signatories including Singapore, Malaysia, the USA, Canada, and Hong Kong.

Like AACSB International, IEET adopted outcomes-based criteria to ensure the desired graduate achievements or learning outcomes, and continuous self-enhancement of overall quality. IEET stated clearly that accredited programs will be able to improve teaching quality according to a variety of assessment outcomes. There are nine criteria for accreditation, including educational objectives, quality and capabilities of the students and graduates, program outcomes and assessment, curriculum, faculty qualification, space and facilities, institutional support and financial resources, discipline-based criteria, and minimum requirements of accreditation for the Master's degree education (IEET 2011).

The IEET programs are allowed to provide the self-study report and all relevant materials in Chinese. In 2004, only 12 Taiwanese engineering programs applied for IEET accreditation, but in 2007, 137 programs have been accredited, a 10-fold increase. Starting in 2010, IEET conducted the second cycle of accreditation. Up to 2011, more than 450 programs in 74 institutions have been accredited by IEET (see Figure 1).

These three agencies are all quality assurance agencies which undertake program accreditation focusing on quality enhancement and learning outcome based standards. But there are significant differences among them, particularly in terms of recognition, assessment programs, application fees and the number of accredited units. As national and local quality assurance agencies, HEEACT and IEET were recognized by the Taiwan government and international networks such as INQAAHE and the
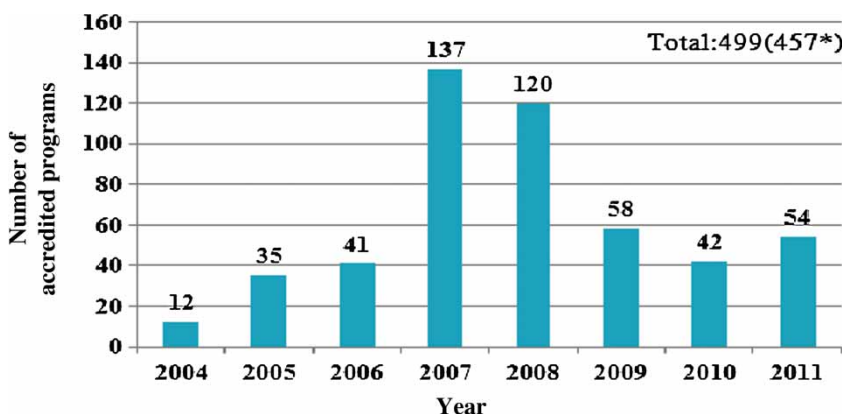

Figure 1.   Number of IEET accredited programs from 2004 to 2011.
Source: Institute of Engineering Education Institute (2011).
*Excluding the reaccredited programs.

Washington Accord. IEET's accreditation outcomes have been mutually recognized by all Washington Accord's signatories, and HEEACT is making great efforts to develop mutual recognition with other Asian quality assurance agencies. In 2012, HEEACT reached a mutual recognition (MR) agreement with the Malaysian Qualification Agency (MQA) (Hou 2012b). Based on the MR, the bachelor degrees awarded by HEEACT's accredited programs are recognized by the Taiwan and Malaysian governments through collaboration between the national accreditors. AACSB International, a US accreditor recognized by Council for Higher Education Accreditation (CHEA) and the US Department of Education (USDE), has also been officially recognized by Taiwan's Ministry of Education, and is mostly welcomed by Asian universities.

HEEACT's compulsory accreditation is subsidized by the MOE, compared with AACSB International's annual fee of 7000 USD and IEET's charge of 14,000 USD per accredited program. AACSB International and IEET adopted an outcomes-based model earlier than HEEACT did. In the first cycle, HEEACT still emphasized input and outputs standards, but HEEACT is transforming to an outcome-based model in the second cycle of program accreditation (see Table 2).

As to standards and criteria, AACSB International has more than 21 standards compared with five in HEEACT and nine in IEET. All of them focus on learning outcomes and assessment. Institutions applying for AACSB International accreditation need to prepare an English self-study report and other relevant supporting documents in English, whereas Chinese materials are used in HEEACT's and IEET's accreditations (see Table 3).

Based on the analysis above, it can be found that HEEACT has been regarded as the leading national accreditor due to its compulsory approach imposed by the national authority. AACSB International, identifying itself as an international quality assurance agency rather than only a US accreditor, has been operating its accreditation globally for more than 20 years. AACSB International is very popular in Asian nations because it is believed that the global competitiveness of an institution will be greatly enhanced through AACSB International accreditation. Recognized officially by the MOE and the signatories to the Washington Accord, IEET plays the local and global roles of connecting Taiwan's institutions to a 'glonacal' context. To sum up, MOE's exemption policy and the proliferation of international accreditation in Asia have resulted in a glonacal quality assurance framework of higher education in Taiwan (see Figure 2).

(4)   Research method and subjects

This study adopted both quantitative and qualitative research methods. First, in order to understand how the three types of program accreditation actually impacted on the development and reforms of Taiwan higher education institutions, the views of administrators and staff in the accredited programs of HEEACT, AACSB International and IEET were gathered by HEEACT and NSC surveys during 2010–2011. In the HEEACT survey, more than 900 questionnaires were distributed to top administrators and faculty members of all its reviewed programs (Chan and Yang 2011). In the NSC survey, a total of 175 questionnaires were sent out to deans, department heads and staff from five AACSB International accredited business schools In Taiwan. Finally, 201 department heads were randomly selected from 455 IEET accredited programs (Hou 2011b). The response rates for the HEEACT, AACSB International and IEET accredited programs were 97.9%, 37.7% and 49.3% respectively. Both surveys mixed multiple choices and 5-point Likert's scale methods to measure the respondents' attitude toward administration, curriculum design, faculty efficiency, learning

Table 2.   Comparison of the three accreditations.

	HEEACT	AACSB International	IEET
Year established	2005	1916	2003
Nature	Non-governmental quality assurance (QA) agency / funded by the MOE	Private US QA agency	Private Taiwanese QA agency
Recognition by	MOE / INQAAHE / APQN	USDE / CHEA	MOE / Washington Accord
Unit of assessment	48 programs / 4-year comprehensive university	Business programs	Engineering programs
Review cycle	5 years	5 years	6 years
Approach	Compulsory	Voluntary	Voluntary
Purpose	Quality enhancement / accountability	Self-enhancement	Self-enhancement
No. of standards / criteria	5	21	9
Review process	Peer review / on-site visit	Peer review / on-site visit	Peer review / on-site visit
Review outcomes	Accredited / conditionally accredited / denial	Accreditation / deferral / no accreditation	Accredited / conditionally accredited (no further on-site visit needed) / conditionally accredited (further on-site visit needed) / pre-accreditation / review is continuing / no accreditation
Language	Chinese	English	Chinese
No. of programs accredited in Taiwan	1870	7 business schools	499
Accreditation fees	External review cost covered indirectly by the MOE	7000 USD / annual fee (in addition, reviewed unit needs to cover external review fees of the on-site visit panel, including airfares, accommodation, etc. / 30,000 USD)	14,000 USD (application process and external review cost) / per program
Internationalization	Accredit local programs and institutions / MR with MQA	Accredit programs outside USA	Accredit local programs but recognized by foreign governments
Type	National	Global	Local

Table 3.   Standards and criteria of HEEACT, AACSB International, and IEET.

	HEEACT	AACSB International	IEET
Goal and mission	Educational goals, features and curriculum design	Mission statement Student mission Financial strategies Management of curricula	Educational objectives Curriculum Institutional support and financial resources
Teaching quality	Teaching quality and learning evaluation	Faculty sufficiency Faculty qualifications Individual faculty educational responsibility Student retention	Faculty Students Program outcomes and assessment
Learning resources	Student guidance and learning resources	Student admission Staff sufficiency-student support Student educational responsibility	Students Space and facilities
Faculty resources	Academic and professional performance	Intellectual contributions Faculty management and support Aggregate faculty and staff educational responsibility	Faculty
Learning outcomes	Alumni performance and self-improvement mechanism	Bachelor's or undergraduate level degree: knowledge and skills Undergraduate educational level Master's level degree in general management programs: knowledge and skills. Master's level degree in specialized programs: knowledge and skills. Master's educational level doctoral level degree: knowledge and skills Continuous improvement objectives	Education for Master's

outcomes, and resource allocation. Due to the differences between the accrediting bodies, the respondents to the HEEACT survey were asked whether the objectives set by the MOE had been achieved. In contrast, 'the reasons for applying to the AACSB International or IEET' and 'internationalization' were components of the AACSB International and IEET surveys only.
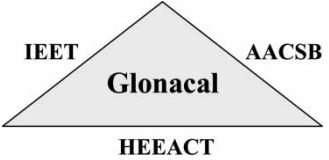

Figure 2.   Dimension of accreditations in Taiwan.

Frequency distributions, means and standard deviation were used to analyze the attitude of respondents. In addition, an independent-sample t-test was adopted to inspect the differentiation of respondents' attitudes in varying groups. Due to the different research methods and numbers of accredited programs in three types of accreditations, some limitations in the study include a lower response rate in the AACSB International and IEET accreditations, having different groups of participants in the respective accreditations, and constraints on the generalization and utility of the findings to other Asian countries.

In order to complement the limitations of the study and to facilitate an in-depth analysis, five top administrators from two Taiwanese quality assurance agencies and three universities in Taiwan, Hong Kong, and Singapore were interviewed face-to-face or via electronic contact.

4.   Analysis of the impact of the three accreditors on Taiwan's higher education institutions

4.1   *HEEACT review*

(1)   *Level of achievement of the MOE objectives*

HEEACT accreditation is a compulsory review. According to the MOE, there are five main objectives of HEEACT accreditation, including assisting universities to understand their own quality, helping the public to assess the quality of universities, assisting universities to develop their features and pursue academic excellence, encouraging universities to develop a quality enhancement mechanism, and elaborating higher education policy according to accreditation outcomes. According to the survey, the two types of respondent, faculty and administrators, agreed highly on 'the development of a quality mechanism' and least on 'using accreditation as reference for governmental higher educational making.' There is no significant difference between administrators and faculty (see Table 4).

(2)   *Impact*

The respondents were asked if their programs had been changed or reformed due to the HEEACT accreditation. More than 50% of respondents thought the cohesion and interaction between professors and students were strengthened as a result, and a graduate tracking system was developed in their programs. Most importantly, the majority of respondents replied that they paid more attention to teaching quality and learning outcomes (see Figure 3). However, a high proportion of respondents pointed out an increase in administrative workload, resulting in a heavy burden on teachers and staff.

(3)   *Challenges*

HEEACT accreditation has brought several challenges to higher education institutions. More than 80% of the respondents stated that 'insufficient human resources' was the biggest challenge. It is found that preparation for the HEEACT accreditation relied heavily on program heads and office staff. More than one third of the respondents mentioned the difficulty in 'collection of all relevant evidence, documents and materials over the past three years' (see Figure 4).

Table 4. Administrator and faculty views on how well HEEACT achieves its objectives.

MOE objective	Administrator (n = 441)		Faculty (n = 440)		Significance
	Mean	SD	Mean	SD	
To encourage universities to develop a quality enhancement mechanism	3.7	0.9	3.7	0.9	0.67
To help universities assess their own quality	3.7	0.9	3.6	0.9	0.23
To help the public assess quality of universities	3.6	0.9	3.5	0.9	0.31
To assist universities to develop their features and pursue academic excellence	3.5	1.0	3.4	1.1	0.12
To make higher education policy according to accreditation outcomes	3.3	1.1	3.3	1.1	0.68

Source: Chan and Yang (2011).

Note: $p < 0.05$ means there is a significant difference between administrators and faculty.

4.2 *AACSB International accreditation*

(1) *Reasons for application*

Because of its voluntary as well as international nature, administrators were specifically asked to identify the main reasons for applying for AACSB International accreditation. The respondents agreed highly on the following items: 'to enhance international outlook to connect with the global,' followed by 'to improve themselves in order to be more competitive academically,' 'requested by University,' and 'to avoid HEEACT accreditation.' Indeed, some respondents admitted that they didn't want to be assessed by HEEACT, due to the MOE's penalty policy and its transparency. AACSB International and IEET only publish the list of accredited programs and schools instead of a final report. Most respondents said that they were not requested by the University to apply for AACSB International accreditation (see Figure 5).

(2) *Impact*

AACSB International institutions responded positively with respect to the impact of accreditation, saying that it assisted them in enhancing the quality of education in terms of closer partnerships among faculty and staff, curriculum reform, student learning outcomes, faculty efficiency, and internationalization. When it came to the level of impact, the AACSB International survey respondents agreed highly on its importance for curriculum reform, which facilitates the integration of program courses and the incorporation of institutional mission and objectives into curriculum design. The respondents had the same level of agreement on the impact on learning outcomes and faculty efficiency, including the items on 'improving student learning outcomes significantly,' and 'improving teaching quality.' In addition, AACSB International institutions responded positively to internationalization impact, particularly
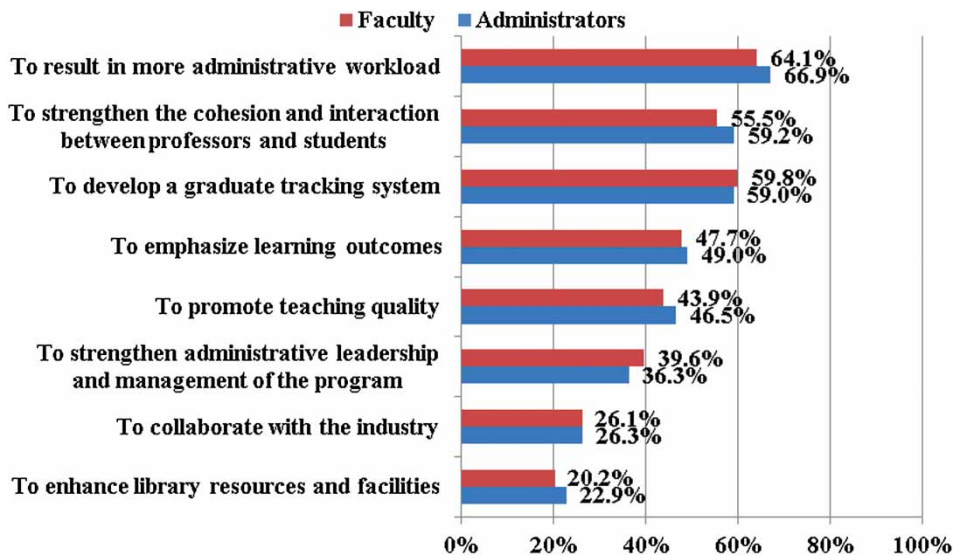
Figure 3.   HEEACT's impact as seen by administrators and faculty.
Source: Chan and Yang (2011).

'international visibility,' and 'international competitiveness.' Relatively speaking, the item 'to increase quantity and quality of academic research by faculty' was agreed to least in the survey (see Table 5).

However, administrators and faculty reached a high consensus on 'increasing more workload,' with scores of 4.4 and 4.2. Based on the analysis above, on the one hand, we see that AACSB International accreditation did indeed require a lot of preparation time for institutions and staff. On the other hand, it made them more collaborative in the implementation of quality enhancement within the institutions themselves.
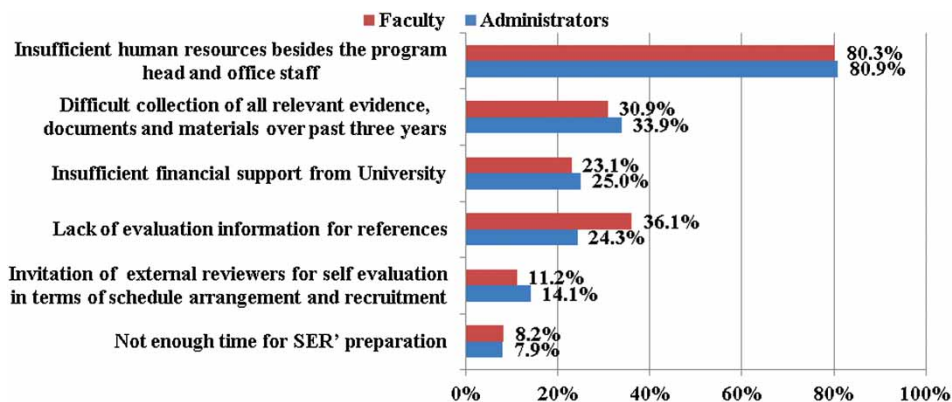

Figure 4.   HEEACT's challenges as seen by administrators and faculty.
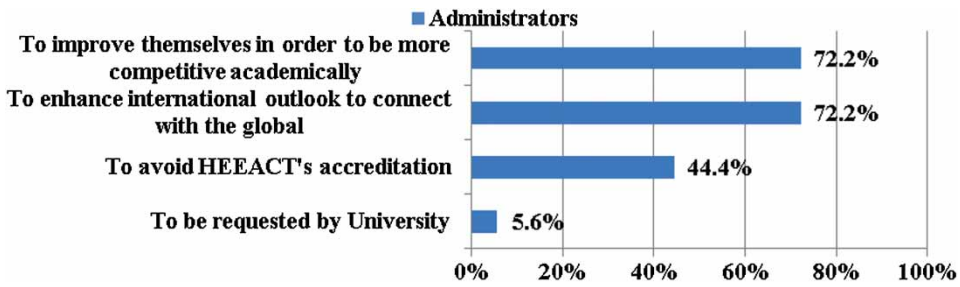Source: Chan and Yang (2011).

Figure 5. Respondents' attitudes towards reasons for applying for AACSB International accreditation.

(3)   Challenges

When it comes to the AACSB International, the three big challenges for institutions, faculty and staff include 'workload increase,' 'more demands on teaching quality and assessment of learning,' and 'time consuming and costly' (see Figure 6). Generally speaking, the level of resistance from administrators and staff is still low, with scores of 2.4 and 2.6, and there is no significant difference among the different types of respondents for AACSB International.

4.3   IEET

(1)   Reasons for application

IEET accreditation is also voluntary. Unlike HEEACT and AACSB International, IEET has accredited not only Taiwanese comprehensive universities but also UTs. The two main reasons for applying for IEET accreditation are 'to enhance international outlook to connect with the global' and 'to improve themselves in order to be more competitive academically.' IEET respondents from comprehensive universities admitted that 'to avoid being assessed by HEEACT accreditation' drove them to apply for IEET accreditation aggressively (see Figure 7).

(2)   IEET impact

Generally speaking, most IEET respondents replied positively on the impact of accreditation in terms of assisting them to develop a closer partnership among faculty and staff, undergoing curriculum reform, improving student learning outcomes, enhancing faculty sufficiency on research and teaching, and internationalization. As to the level of impact, IEET respondents agreed highly on curriculum reform, as in the case of the AACSB International's programs. During the process of accreditation, IEET respondents stated that staff were working more closely than before and built up a team culture. Most respondents reached a high consensus on the item 'increasing more workload' with a score of 4.5.

When examining whether there was a significant difference between the two types of respondent, people from the UTs felt much stronger than those from the comprehensive universities about the following impacts: 'increasing quantity and quality of academic research by faculty' and 'incorporating the mission and objectives of the institution into course design' (see Table 6).

Table 5.   Respondents' attitude toward AACSB International's impact on the program by administrators and faculty.

Item	Impact	Administrator/ staff (n = 30)		Faculty (n = 36)		Significance
		Mean	SD	Mean	SD	
Organization	To increase workload	4.4	0.6	4.2	0.7	0.19
	To build closer partnerships	3.7	0.8	3.3	1.0	0.10
	To strengthen the role of the College and to decrease the autonomy of departments	3.6	1.1	3.4	0.9	0.48
Curriculum reform	To make courses more integrated	3.9	0.8	3.9	0.8	0.94
	To incorporate the mission and objectives of the institution into course design	4.0	0.9	3.8	0.8	0.36
Learning outcomes	To improve student learning outcomes significantly	3.6	0.8	3.4	0.8	0.34
Faculty efficiency	To increase quantity and quality of academic research by faculty	3.5	0.9	3.2	0.9	0.15
	To improve teaching quality	3.7	0.8	3.6	0.8	0.77
Internationalization	To enhance academic reputation domestically	3.7	0.9	3.8	0.9	0.76
	To get more international visibility	3.9	0.9	4.0	0.8	0.69
	To be more internationally competitive	3.9	0.9	4.0	0.7	0.71
	To attract more international students	3.6	0.8	3.9	0.8	0.12
	To facilitate graduates to study/work aboard	3.7	0.9	3.5	1.0	0.41

Note: $p < 0.05$ means there is a significant difference between administrators and faculty.
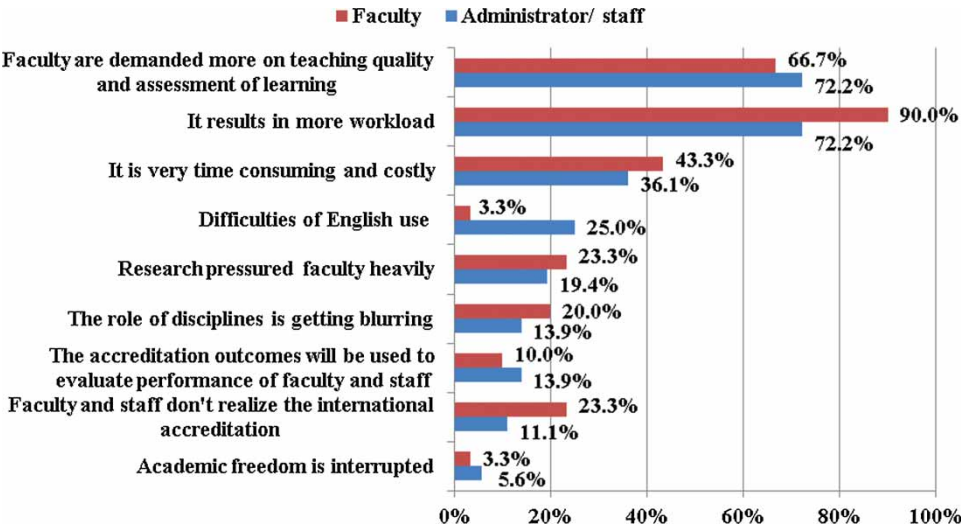
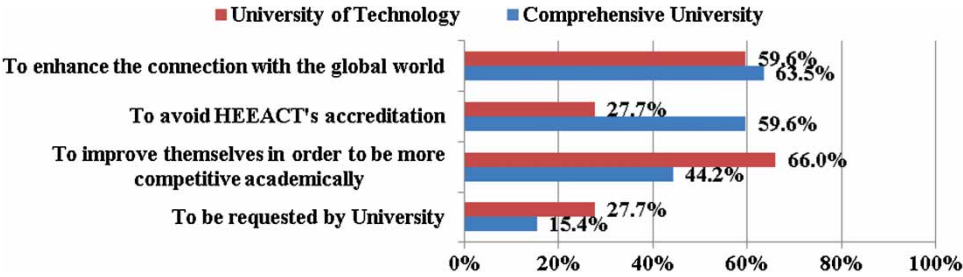Figure 6.   Challenges faced by AACSB International accredited institutions.

Figure 7.   Respondents' attitudes toward the reasons for applying for IEET accreditation.

(3)   IEET challenges

According to the survey, three big challenges for the IEET accredited programs are 'more workload increase,' 'more demands on teaching quality and assessment of learning,' and 'time consuming and costly' (see Figure 8). The level of resistance from faculty and staff is still low with a score of 2.6.

5.   Discussion

Based on the analysis above, the three types of program accreditation had a significant impact on Taiwan's higher education institutions in varying ways. They have a number of common consequences, such as institutional responsiveness to public demand, more attention to teaching quality and learning outcomes, and developing an internal quality assurance system. But there are also important differences, as illustrated in the discussion below.

Table 6.   IEET respondents' attitude toward impact on the programs.

		Type of institution				
		Comprehensive universities ($n = 52$)		UTs ($n = 47$)		
Item	Impact	Mean	SD	Mean	SD	Significance
Organization	To increase the workload	4.5	0.5	4.6	0.6	0.83
	To build closer partnerships	3.9	0.9	3.9	0.9	0.68
Curriculum reform	To incorporate the mission and objectives of the institution into course design	4.0	0.8	4.3	0.6	0.046*
	To make courses more integrated	3.9	0.7	4.2	0.8	0.13
Learning outcomes	To improve student learning outcomes significantly	3.9	0.8	4.2	0.7	0.10
Faculty efficiency	To increase quantity and quality of academic research by faculty	3.7	0.9	3.9	0.7	0.36
	To improve teaching quality	3.2	0.9	3.6	0.9	0.03*
Internationalization	To enhance academic reputation domestically	3.8	0.7	4.0	0.7	0.17
	To get more international visibility	3.6	0.9	3.9	0.8	0.15
	To facilitate graduates to study / work aboard	3.4	1.1	3.5	0.7	0.44
	To attract more international students	3.4	1.1	3.5	0.7	0.57
	To be more internationally competitive	3.2	1.1	3.5	0.8	0.16

Note: $p < 0.05$ means there is a significant difference between comprehensive universities and UTs.
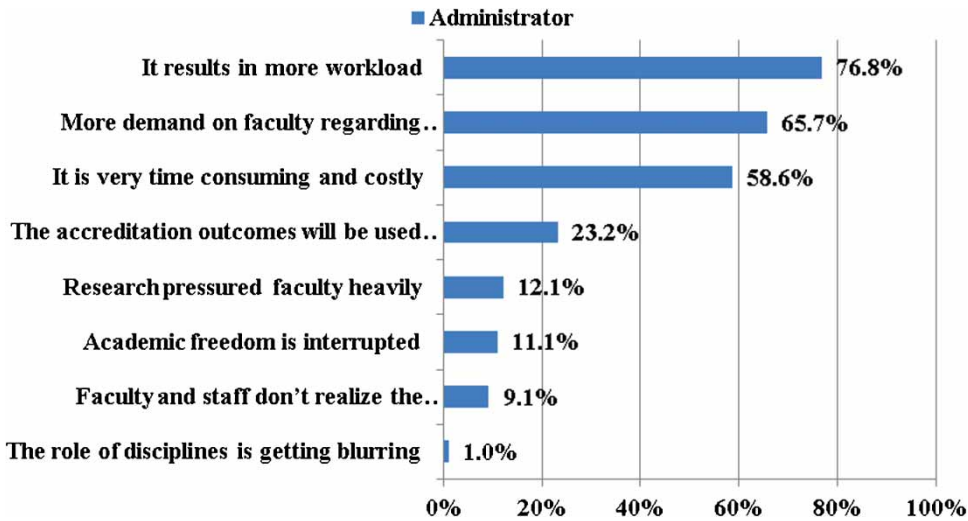
Figure 8.   IEET respondents' attitudes towards challenges.

(1)   *Influence on higher education institutions – understanding notions of continuous and self-directed quality improvement*

According to Martin and Stella (2007), a voluntary mechanism is better than a compulsory approach when the aim is mainly to promote quality self-enhancement. AACSB International and IEET worked with institutions which applied voluntarily for the accreditation and which had two main motivations, self-enhancement and benchmarking. AACSB International's institutions were focused on lifting their international competitiveness. In response to student mobility, IEET programs paid great attention to graduates' employability.

HEEACT accredited a larger number of programs in the first cycle, with an 86% pass rate. HEEACT's survey also shows that five major goals set by the MOE have been reached, particularly developing an internal quality assurance mechanism within institutions and programs. However, it also shows that HEEACT programs and institutions were concerned more about the potential penalties by the MOE if they could not pass the HEEACT accreditation than by the need to embrace continuous and self directed quality improvement, due to its compulsory approach (Chang and Yang 2011).

Thus, there is a common understanding of continuous quality improvement by the three program accreditations. However, AACSB International and IEET accredited programs tended to be more self-directed than HEEACT-accredited programs, due both to their nature and to the MOE's exemption policy.

(2)   *Influence on institutional management – academic development and administrative resources*

Based on the responses to the three program accreditations, there are seen to be several valuable benefits at the program level, such as the focus on self-enhancement, developing a continuous self-evaluation mechanism, and implementing internal outcomes-

based and mission-oriented goals, etc. In addition, the accreditation process and results helped identify the academic strengths and weaknesses of a program, such as curriculum design, faculty development, administration and support. Most importantly, programs regularly collected data about teaching and learning, and examined curriculum content for self-enhancement. Former HEEACT president George Jiang stated, 'HEEACT's accreditation indeed assisted the programs to set up a mechanism for self enhancement through a systematic data analysis and institutional research. Take the programs under review for example, those programs seemed very confident about their quality, but they do not have sufficient evidence to demonstrate what they did' (personal interview, June 5, 2011).

Time and expense are two major challenges in all three accreditations. The surveys all showed that faculty and staff committed themselves to the increased administrative work. The increased burden, linked to a lack of investment in human and financial resources, has led to a certain level of resistance within the programs accredited. Language is another big issue, particularly for all AACSB International institutions compared to the programs accredited by IEET and HEEACT. All related papers, documents and evidence needed to be translated into English for AACSB International accreditation, which increased the workload for faculty and staff.

(3)   *Influence on teaching practices – learning outcomes assessment focus*

AACSB International and IEET accreditation focused mainly on student learning outcomes, which can be assessed by a variety of tools. The survey showed that most respondents agreed highly on significant improvement in teaching and learning quality through curriculum reform, more resources and services provided to faculty, and greater attention to students' needs. One department head from a public university said, 'AACSB International made the school pay more attention to teaching quality continuously and most important of all, it is to focus on relevance between teaching methods and learning outcomes.' In the survey, many IEET respondents stated that the school invested more resources in student learning support and in a graduate tracking system in order to make the quality of learning more visible through better employability. IEET's Deputy Executive Director, Dr. Mandy Liu, also pointed out, 'IEET accredited programs have learned to develop an integrated quality assurance system which will be able to integrate teaching objectives into learning outcomes and collect graduates' performance to realize if teaching is effective not. In fact, they didn't think they should have done so before the IEET accreditation' (personal interview, August 10, 2011).

The HEEACT accreditation did not adopt a learning outcomes based model in the first cycle, but it did start to hold workshops, seminars and conferences to increase institutions' awareness of the new model (HEEACT 2012). Although most HEEACT programs are still learning this new trend, several institutions have already 'taken actions in the development of student learning outcomes in broader ways, such as establishing clear statements of student learning outcomes, collecting and interpreting evidence of student performance, routinely modifying the standards, policies, curricular structure and leaning support systems based on the opinions from graduates, employers, and student e-portfolio' (Hou 2010, 44).

However, the respondents from the three accreditations all admitted that faculty members felt pressured about ways to develop appropriate measures for student learning outcomes.

(4)   *Influence on internationalization*

According to the AACSB International and IEET survey respondents, there are several positive international effects of accreditation, including increased international reputation, strengthening the global competitive edge, attracting more international students, and helping graduates to study abroad and to get employment in foreign countries. There is no doubt that internationalization is one of the greatest benefits brought about by AACSB International and IEET accreditations.

Several IEET respondents clearly indicated that accreditation had a great impact on their overall level of internationalization. AACSB International respondents particularly identified two most influential items of international accreditation: 'attract more international students' and 'offer more English taught courses.' But interestingly, Professor Hsin-Li Chang, Dean of the Business School of National Jiao Tung University, pointed out that the availability of scholarships was more useful than international accreditation when it comes to 'attracting international students' (Chang, personal interview, 2011).

6.   Conclusion

There is now a growing awareness that as quality assurance agencies increase their impact, they will better help universities improve quality (Zoqaqi 2011). The results of the study indicated that the three accreditation systems did have a great impact on learning outcomes-based teaching, self-enhancement mechanisms and internationalization in Taiwan's higher education institutions. Yet it was also found that the increased time and efforts by staff and faculty has inevitably resulted in resistance to all three program accreditations.

Taiwan's glonacal quality assurance system not only assists the universities to set up a self-enhancement quality mechanism but also gives them more autonomy to develop their own features by choosing a suitable accreditation activity. But despite these positive effects, some issues concerned with accreditation are still challenging Taiwanese society. They include: whether exemption policy violates national sovereignty over higher education; whether, if national and local accreditors were unable to cater to local institutions' needs, universities might pursue international rather than local accreditation; whether international accreditors could actually enhance internationalization of accredited program as they claimed, which would strengthen graduates' employability in the global market; or whether local and international accreditations were too market-driven, which might distort university missions (Knight 2005; Hou 2011a).

In response to international competition and the need to pursue continuous self-improvement, most Asian nations have developed a national quality assurance system for their higher education institutions, but increasingly international accreditation seems more attractive than national accreditation due to its global recognition. According to Prof. T. J. Wong, Dean of Business School of the Chinese University of Hong Kong, 'we need to be global to fit our strategy and stay competitive. AACSB International does help our institution in terms of setting up collaboration programs and expanding the MBA and undergrad exchange partners' (Wong, personal communication, 2011). Although Singaporean institutions were already very international before gaining AACSB International accreditation, Professor Yeo Hian Heng, Dean of the Nanyang Business School, agreed that being recognized by AACSB International still 'expands the collaboration with other international education institutions and gets a quality guarantee for our business school' (Yeo, personal

communication, 2011). As international accrediting bodies have grown increasingly popular in Asia, their impact on higher education still need to be examined seriously, as with other local and national accreditors.

It is not clear whether Taiwan's experience is exactly applicable to other Asian glonacal quality systems which do not adopt an exemption policy. However, it is certain that measuring the impact of various types of accreditation through a longitudinal approach will be an important long-term research activity in Asian higher education. As public demand to prove the effectiveness of global, national and local accreditors gets stronger, it will encourage more Asian governments to think of a more glonacal quality assurance system for higher education in the future.

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