

Research on Evaluation Indicator Framework for the Internationalization of Chinese Universities

Dan Xiang

School of Foreign Studies, Northwestern Polytechnical University,

Youyi Xilu 127, Xian, 710072, P. R. China

Email: danxiang@nwpu.edu.cn

Published: 25 April 2022

Copyright © Xiang.

Abstract :

Chinese academia is undergoing a transformation in the quality assessment of higher education to develop assessment processes that are more inclusive, diversified, and quality-emphasized. This paper is an attempt to develop such a framework whereby individual university can adapt to assess its departmental international performance and the integration of international dimension into their primary functions and priorities in teaching, research and service. Based on the previous studies on the assessment process of internationalization of higher education, a framework is proposed with 7 genetic categories, 22 criteria and 35 indicators. Major categories cover international relationship capital, internationalization of faculty, internationalization of students, internationalization of research collaboration, international education, international reputation and organizational strategies. The evaluation framework can be used to measure the departments' annual ongoing international progress or its five-year international performance in line with the five-year plan.

KEYWORDS: Chinese Universities, Evaluation, Indicator framework, Internationalization of higher education

1. Introduction

Internationalization of higher education (IHE, hereafter) was an inborn characteristics for the first group of universities in Europe. The role of internationalization and its contribution to higher education is gaining more recognition, and is becoming central to the provision of higher education across the globe^[1]. As IHE matures, it is important that universities address the issue of the quality assessment and assurance of the international dimension into the teaching, research and service functions of the institution^[1].

Internationalization is also an inevitable path for Chinese universities especially when entering 21st century. A majority of Chinese universities have made their international strategic plans since the twelfth five year plan, which evolve over time in response to changing needs and trends. In 2017, the Chinese government released a list of universities and disciplines supported by the First-class University and First-class Discipline Initiative (double-first class initiative) with the aim to build its world's leading universities and disciplines^[2]. The list was renewed in 2022 based on the assessment by the Chinese Ministry of Education, with internationalization an important factor addressed. It is essential for the university to have regular self-assessment in its international dimension to examine its progress toward its targets, and serve as an early alert to determine whether adjustments need to be made.

The evaluation of the international performances for Chinese universities is becoming mature, but there is a lack of evaluation framework for the university to assess its departments' integration of international dimension into their primary functions and priorities. The assessment at university level includes the Dynamic Inspection Indicators for the Double-first Class Universities and the Discipline Assessment by the Chinese Ministry of Education, as well as world university and discipline rankings by the QS, THE, US News and Reports, etc. There is a trend that Chinese universities are decentralize their authorities and responsibilities to departments with the purpose to unleash the potential competencies. With this trend, the department is responsible for its policy-making, funding distribution, and recruitment within the guiding principles given by the university. Therefore, it is necessary to develop an evaluation framework for the university to have assessment over its departmental internationalization.

This paper seeks to develop an evaluation framework with indicators which would be effective for universities in undertaking a quality assessment of the individual department in internationalization initiatives, and to provide guidance for departments to adjust their work emphasis to be in pace with the university's stated goals and objectives for internationalization.

2. Literature review

A considerable amount of research has examined the evaluation process for IHE since the mid of 1990, from international organizations such as OECD to organizations in English-speaking countries and scholars like American Council on Education and Jane Knight, and then to non English-speaking countries as Japan Society for the Promotion of Science, and Korean Educational Development Institute^[3].

2.1 Internationalization Quality Review Process

The OECD Programs on Institutional Management in Higher Education (IMHE) was among the first group of international organizations that involved in cross-country analysis of the IHE. In collaboration with the Academic Co-operation Association (ACA), they conducted the Internationalization Quality Review Process (IQRP) and later published Quality and Internationalization in Higher Education in 1999 outlining a

review process to assess and enhance the academic institutions' internationalization quality, for both self-assessment and external review ^[1]. For the self-assessment part, the main categories were context, internationalization policies and strategies, organizational and support structures, academic programs and students, research and scholarly collaboration, human resources management, contracts and services, conclusions and recommendations. Table 1 shows the outline for the self-assessment of IQRP ^[1].

Table 1

Outline for the self-assessment of IQRP

<i>Category</i>	<i>Indicator</i>
Context	Summary of the higher education system, Summary of the institutional profile, Analysis of the (inter)national context
Internationalization policies and strategies	Address seven issues provided and undertake a SWOT analysis on the internationalization policies and strategies of the institution
Organizational and support structures	Organization and structures, Planning and evaluation, Financial support and resource allocation, Support services and facilities
Academic programs and students	Internationalization of the curriculum, Domestic students, Foreign students, Study abroad and student exchange programs
Research and scholarly collaboration	Address nine related issues provided and undertake a SWOT analysis on the international dimension of research and scholarly collaboration of the institution
Human resources management	Address nine related issues provided and undertake a SWOT analysis on the international dimension of research and scholarly collaboration of the institution
Contracts and services	Partnerships and networks, Out of country education programs, Development assistance, External services and project work
Conclusions and recommendation	Main conclusions from the self-assessment on internationalization and five other issues provided

Source: Knight and de Wit, 1999

2.2 CIGE Model for Comprehensive Internationalization

The American Council on Education (ACE) developed the CIGE Model for Comprehensive Internationalization in 2001, an evaluation system for IHE, comprising six interconnected target areas, including articulated institutional commitment, administrative leadership, structure, and staffing, curriculum, co-curriculum, and leading outcomes, faculty policies and practices, student mobility, and collaboration and partnerships with 23 secondary indicators, as shown in Table 2. ^[1]

Table 2

CIGE Model for Comprehensive Internationalization

<i>Category</i>	<i>Indicator</i>
Articulated institutional commitment	Strategic planning, Internationalization committee, Campus stakeholders, Assessment, Senior leadership, International office
Curriculum, co-curriculum, and learning outcomes	General education requirements, Internationalized courses in the disciplines, Co-curriculum, Student learning outcomes, Technology
Faculty policies and practices	Tenure and promotion policies, Hiring guidelines, Faculty mobility, On-campus professional development
Student mobility	Credit transfer policies, Financial aid and funding, Orientation and re-entry programs, Ongoing support and programs for international students
Collaboration and partnerships	Partnerships with institutions and organizations abroad, Community collaborations, On-campus networks

Source: Knight and de Wit, 1999

2.3 University Rankings by Internationalization by SWJTU

The University Rankings by Internationalization is an initiative undertaken by the Institute of Higher Education of Southwest Jiaotong University from 2013, focusing on the analysis and ranking of the internationalization of Chinese universities. Two evaluation indicator systems were developed, with one for research and the other ranking. The former grouped 44 questions into seven generic categories: internationalization of students (international students, students participated in international exchange activities), internationalization of faculty (categories, international exchange), internationalization of teaching (courses, cooperative running schools or programs), scientific research cooperation (research, outcomes), cultural communication and exchange (home and abroad), international visibility (comprehensive, special), guarantees of internationalization (concept of internationalization, financial guarantees, guarantees of mechanism and personnel, campus internationalization).^[4]

The ranking indicator system is a simplified version from the research one. In 2017, the category, Special Programs, was included^[5], and later in 2018, the category, Guarantees, was replaced by Peer Review^[6]. Table 3 shows the University Internationalization Evaluation Indicators in 2018.

Table 3

University Internationalization Evaluation Indicators, SWJTU (2018)

<i>Tier one indicators</i>	<i>Tier two indicators</i>
Internationalization of students	International students Outbound students Graduates studying abroad
Internationalization of faculty	Exchange International faculty, high-level international experts
Internationalization of teaching	Number of courses taught in English Information and platforms (international journals, and database) Chinese-Foreign Cooperation in Running Schools (CFCRS)
Internationalization of research	Platforms approved by the Ministry of Education or Ministry of Science and Technology Outcomes (international co-authored papers and patents)
Cultural communication	Institutes for region/country research
International visibility	QS ranking, US News ranking, etc ESI 1% disciplines
Peer review	Internationalization of students, faculty, research and reputation
Special programs	Programs approved by the government or international organizations, offshore campus

Source: Institute of Higher Education, Southwest Jiaotong University, 2018

2.4 Knight's program strategies and organizational strategies

Canadian scholar Jane Knight defined two generic types of international strategies, program strategies and organizational strategies, which complement and reinforce each other. Program strategies refer to international initiatives or activities in teaching, learning, training, research, and supporting activities carried on by the institution, while the organizational strategies include policies, procedures, systems and supporting infrastructures facilitating the institution's international activities. Program strategies according Knight were divided into four categories, including academic programs, research and scholarly activities, extracurricular activities, external relations and services, while organizational strategies looked into from aspects including governance, operations, support services, and human resource development. Table 4 presents examples of Knight's program strategies and organizational strategies. ^[1]

Table 4
Knight's Program Strategies and Organizational Strategies

<i>Type</i>	<i>Category</i>	<i>Indicator</i>
Program strategies	Academic programs	Student exchange program, Foreign language study, Internationalized curricula, Area of thematic studies, Work/study abroad, International studies, Teaching/learning process, Joint and double degree programs, Cross-cultural training, Faculty/staff mobility program, Visiting lecturers and scholars, Link between academic programs and research, training and development assistance
	Research and scholarly collaboration	Area and theme centers, Joint research projects, International conference and seminars, Published articles and papers, International research agreements, Research and graduate student exchange programs, International research partners in academic and other sectors, Link between research, curriculum and teaching
	External relations and services (domestic and abroad)	Community-based partnership and projects with non-government groups or private sector companies, International development assistance projects, Customized/contract training programs off-shore, Link between development projects and training activities with teaching and research, Community service and intercultural project work, Off-shore teaching sites and distance education, Participation in international networks, Alumni development programs abroad
	Extra-curricular activities	Student clubs and association, International and intercultural campus events, Liaison with community based cultural groups, Peer groups and programs, Social, cultural and academic support systems
Organizational strategies	Governance	Expressed Commitment by senior leaders, Active involvement of faculty and staff, Articulated rationale and goals for internationalization, Recognition of an international dimension in mission statement and other policy documents
	Operations	Integrate into institution-wide and development planning budgeting and quality review systems, Appropriate organizational structures, Communication system (formal and informal)for liaison and coordinator), Balanced between centralized and decentralized promotion and management of internationalization, Adequate financial support and resource allocation systems
	Support services	Support from institution-wide unites, Involvement of academic support units, Student support service for international students
	Human resource development	Recruitment and selection procedures which reorganized international and intercultural expertise, Reward and promotion policies to reinforce faculty and staff contribution to internationalization, Faculty and staff professional development activities, Support for international assignments and sabbaticals

Source: Knight and de Wit, 1999

2.5 Previous studies by other organizations and scholars

The Australian Universities Quality Agency (AUQA) developed an international activities assessment system with seven aspects including approaches/motivation, quality assurance, curriculum, collaboration partners /transnational education, onshore curricula, student mobility, oversea alumni^[7]. Schoorman (2000)^[8] also proposed criteria for the evaluation of the IHE, which were grouped into three categories: core features, micro and aspects. Examples of the core features were international commitment, organizational leadership, resources, and review. For micro aspects, management and service, and curriculum were examined, while international staffing and students, international exchange plan, international network for the macro aspects. Bartell (2002)^[9] suggested five aspects to be taken into consideration, including foreign students and exchange students, funding for international research, number of international research project, international partners, international curricula.

The evaluation system proposed by Chinese scholars are more suitable for the assessment of the internationalization process of Chinese universities. Li (2005)^[10] suggested a seven-criteria system including awareness and planning, organizational framework, students, faculty, curricula, research, Chinese-Foreign Cooperation in Running Schools (CFCRS). Chen et. al (2009)^[11] proposed an evaluation framework for Chinese research-oriented universities, with five categories covering strategic planning and organization, international exchange of faculty of students, teaching and research, infrastructure, international exchange of outcomes. Wang (2010)^[12] pointed out that the IHE is a process in awareness, behavior and output, and proposed a international evaluation framework with three categories including international awareness, international competency, and international performance. Yang (2011)^[13] examined elements that affected the performance of the IHE, and grouped them into four categories: international strategy and planning, international concept, policies and management, and support systems. Ding (2014)^[14] suggested a measurement model for the internationalization of Chinese universities with five dimensions (international concept, strategy, policy and projects, and supporting system) and their corresponding 40 observed variables. Jin and Li (2014)^[15] proposed ten generic categories to measure the level of institutionalization of Chinese universities: international awareness, student exchange, faculty exchange, teaching, China-foreign schooling projects, scientific collaboration, management, cultural exchange, campus, international reputation. Xiang (2016)^[3] applied concepts in management strategy in IHE and proposed a framework of “intellectual capital - dynamic capabilities – international performance” to examine the internationalization process of Chinese universities, and a measurement model was established. To examine the universities international intellectual capital, three criteria were proposed including international human capital, international structure capital, and international relations capital; for international dynamic capabilities, four criteria were used including international environment detecting capability, organizational study capability, mediating and integrating capability, and restructuring and innovating capability; the other three were proposed to measure the university’s international performance, including international reputation, international schooling, and international research. Nong (2021)^[16] proposed an evaluation framework of university internationalization, including four first-level indicators including the internationalization of concept, personnel internationalization, internationalization of curriculum/research/management, and international invisibility with 13 second-level indicators.

3. Framework of International Indicators for Chinese Universities at Departmental Level

Jane Knight (1994)^[17] proposed an six-phase internationalization cycle with Review as its fifth stage to “assess and continually enhance the quality and impact of the different aspects of internationalization

process.” To this end, it is important to have systematic review annually to monitor and assess the value and success of international strategies, activities and budget of departments and administrative units across the campus. With the Knight’s (1994) ^[17] definition of IHE as “the process of integrating an international dimension into the teaching, research and service functions of the institution”, it is critical to address the quality issue of the internationalization from the three perspectives as most previous studies showed. This paper, with no exception, seeks the assessment of international dimension in the three major functions at departmental level.

Recent years, Chinese academia is undergoing a transformation period seeking for a more inclusive, diversified, and quality-emphasized educational evaluation process. The study is an attempt to bring such a framework at departmental level, which would illustrate the factors which need to be taken into account when the university is trying to articulate the most important indicators to assess its individual department’s international planning, strategies, and implementation.

Based on the assessment process of previous studies, and taking the evolve of the emphasis of internationalization over time into consideration, the first level of analysis is to categorize the factors into seven groups: international network, internationalization of faculty, internationalization of students, internationalization of research collaboration, international education, international reputation, and organizational strategies. As stated by previous scholars that these categories are not necessarily distinctively different from each other ^[1].

3.1 International relationship capital

Under the theoretical framework of intellectual capital, relationship capital is the sum of an organization’s connectivity to the marketplace, and may includes the relationship with customers and suppliers ^[18], and approaches to communicate with the market, government, and ways to collect the need and feedback of customers ^[19]. Universities have its special relationship network, internally and externally. A broad range of international relations are critical for the internationalization process of universities. Together with the framework of IQRP, Knight’s Program Strategies, Schoorman (2000) ^[1,8], where international network was included, this study proposed international relationship capital to be taken into consideration as one category. Here, three criteria are proposed to assess the international relationship capital including international partners, multilateral cooperation, and oversea alumni.

For international partners, it is about the international cooperation agreements that are signed or mainly proposed by the department or its faculty with the oversea universities or departments, enterprises, and research institutes. Signing concrete agreements on specific international research projects, joint educational programs, and technology transfer or incubation is the core indicator to evaluate the international relationship. In addition to bilateral cooperation, multilateral cooperation is becoming a trend for Chinese universities, especially the double-first-class universities, who are working on joining international organizations and international associations, or launching their international associations for universities across the globe to join. Entrenching multilateral cooperation into the evaluation system is to guide departments to take it into consideration and work on it. Oversea alumni is another critical international relationship capital for departments, who can expand the range of international network for the department. Indicators for intentional relational capital is shown in Table 5.

Table 5

International Relationship Capital

<i>Criterion</i>	<i>Indicator</i>
International partners	Number of international cooperation agreements signed with oversea universities or departments, enterprises, research institutes)
Multilateral cooperation	Number of international associations joined or launched, number of international organizations joined
Oversea alumni	Number of oversea alumni

3.2 Internationalization of faculty

From the view of intellectual capital, human resources is one of the priorities to be considered. Brooking (1996) ^[20] pointed that human resources capital can be recognized in terms of their education, professional certification, task-related knowledge, career potential, personality, work-related capabilities. Roos et al. (1998) ^[21] concluded intellectual capital into capability, attitude and intellect. Within the context of internationalization, we chose three criteria to evaluate the internationalization of faculty, including international faculty, international renowned scholars, origins of degree.

For international faculty, it is about the full-time and part-time international faculty members. In addition, the number of awards gained by the international faculty is to assess the quality of the international faculty and contributions made, awards as the Chinese governmental friendship award for foreign experts, and awards from international renowned institutions. The number of highly-cited scholars and oversea association fellows, as well as the appointment with international journals, organizations, and conferences are grouped under the criterion international renowned scholars These are the ones to assess the outcome of the investment on the internationalization of faculty. The higher level the university's/department's internationalization is, the more important these three indicators are. Origins of degree in this context, refer to the faculty members gained PhD degree from overseas. This is still an important factor to assess the faculty because those with oversea PhD degree at large are rich in international connections and natural in international cooperation, resulting in more in-depth international engagement and activities. Table 6 shows the three criteria and related indicators for internationalization of faculty.

Table 6

Internationalization of Faculty

<i>Criterion</i>	<i>Indicator</i>
International faculty	Number of full-time/part-time international faculty
	Number of awards by the Chinese governmental for international experts, number of awards gained from international academic organizations
International renowned scholars	Number of highly-cited scholars
	Number of oversea association fellows
	Appointment at International journals, international organizations, and international conferences
Origins of degree	Number of faculty with oversea PhD degree

3.3 Internationalization of research collaboration

Universities, especially research-led universities place emphasis on the international collaboration on research, which turns out be a core criterion to measure the strength of international networks and the performance of the investment on the international exchange of faculty and PhD students. It is in much the same way that university use it as core indicators at the departmental level. Five criteria are proposed in this study to evaluate the internationalization of research collaboration: platforms, joint projects, conferences, co-authored publishes, and big science projects.

International platforms are the ones that can articulate abundant resources home and abroad as researchers, funding, projects, as well as postgraduate students, essential to produce influential research achievements. For platforms, we take into consideration the international platforms and joint research institutions recognized at the university, municipal, provincial, and national level, as well as the international journals hosted. Joint projects refer to those jointly applied either from the Chinese Ministry of Science and Technology or from overseas. Conferences are the on-line or off-line international conferences organized or co-organized by the department. Co-authored papers and books are critical to measure the performance of the departmental international research collaboration, both the quantity and quality. The quality of co-authored papers can be reviewed by the number of faculty with Elsevier field weighted citation impact (FWCI) above world average 1. The big science plan and project included as one of the criteria is mainly to encourage departments to be more actively engaged in the International Big Science Plan and Project. Either participation or hosting accounts. Table 7 shows the five criteria and related indicators for internationalization of research collaboration.

Table 7
Internationalization of Research Collaboration

<i>Criterion</i>	<i>Indicator</i>
Platforms	Number of platforms for international scientific collaboration and faculty exchange recognized at national/provincial/ministerial/municipal level Number of international joint research institutions established at university level Number of international journals hosted
Joint projects	Number of international joint research projects and funding
Conferences	Number of international conferences organized or co-organized
Co-authored publishes	Number of international co-authored papers/books published Number of faculty with Elsevier field weighted citation impact (FWCI) above world average 1 in international co-authored papers
Big science projects	International Big Science Plan and Project hosted or participated in

3.4 Internationalization of students

Internationalization of students mainly refers to the internationalization of domestic students, and is one of the main purpose of internationalization. Three criteria are proposed to evaluate the departmental internationalization of students: internationalization at home, study abroad, and international internship.

Internationalization at home is becoming an important part for the IHE especially during the pandemic period, and may continue to be a trend in the post-pandemic time. It can have a broad meaning, but in this study we mainly look at the Chinese-Foreign Cooperation in Running Schools (CFCRS) in a Chinese setting. The CFCRS programs or institutions refer to those registered with the Chinese Ministry of Education, which is attractive to Chinese students seeking to gain a foreign degree on Chinese campuses^[22]. It is an effective way to promote the internationalization of domestic students at home, with the exchange of teaching methods and systematic oversea curriculum. Therefore, the number of CFCRS programs is a key indicator both at central and departmental level, as well as the number of students enrolled, which is also an indicator to assess the quality of the CFCRS program/institution. Apart from CFCRS, Chinese universities especially the double-first-class universities are attaching particular priority to developing international understanding curriculum to frame benefits in terms of enhancing students' international awareness. Studying abroad is another key means to facilitate the internationalization of domestic students. The number of student mobility programs include both joint degree and exchange programs. In order to prepare students with international awareness, to have internship at international organizations or enterprises both at home and abroad is also encouraged. Table 8 shows the three criteria and related indicators for the internationalization of students.

Table 8

Internationalization of Students

<i>Criterion</i>	<i>Indicator</i>
Internationalization at home	Number of Chinese-Foreign Cooperation in Running Schools (CFCRS)/students enrolled International understanding curriculum
Study abroad	Number of international joint double degree programs/students Number of outbound exchange programs/students
International internship	Number of students having internship at international organization or enterprises home and abroad

3.5 International education

International education refers to education provided for international students on campus and off-shore. As the IHE in China matures, the number of international students applying for Chinese universities is growing rapidly. The emphasis then changed from the quantity to the quality of international students. Two major criteria were proposed to measure international education, including international students and curricula open for international students.

With the quality issue addressed, apart from the number of degree students both on campus and offshore, their language proficiency and the diversity of countries of origin are taking into consideration. International students study on campus is still a major way of leaning in China, while offshore students are linked via on-line courses due to the pandemic. In addition, the number incoming exchange students from the oversea partner universities is another indicator to measure the quality of international education. The incoming students especially postgraduates, implying close links and research collaboration between supervisors, have an enriching effects on the quality of the academic environment on campus. The incoming number is less than the outgoing exchange students. Therefore, departments are encouraged to develop consistent policies to encourage faculty-level international research collaboration and integrate incoming

students into the to-do list of Chinese supervisors. The number of majors taught in English is a key factor that affect the number of students enrolled. For students with a certain level of Chinese language proficiency, bilingual courses are needed. Therefore, teaching in English both in quantity and quality are important to attract more international students. On-line courses for international students are another trend in Chinese universities, due to the less student mobility during the pandemic time. It plays a key role in maintaining the registered degree students. Table 9 shows the two major criteria and related indicators for international education.

Table 9

International Education

<i>Criterion</i>	<i>Indicator</i>
International students	Number of degree students (on campus and offshore) English or Chinese language proficiency when entering university Distribution of countries of origin
Curricula open for international students	Number of incoming exchange students Major or courses taught in English Bilingual major or courses On-line international courses for international students

3.6 International reputation

International reputation is an indicator widely used by world university rankings to evaluate the institutional international performance. For instance, the global research reputation, one of the top three indicators of the US News & World Report Best Global Universities rankings, takes a weight of 12.5% [23]. The indicator of academic peer review of QS World University Rankings, a composite score drawn from peer review survey, takes a weight of 40%, giving an emphasis on the influence of global academic reputation [24]. Three criteria are proposed to evaluate the departmental international reputation, including discipline reputation, offshore institutions, and satisfactory rate.

To evaluate the international reputation at institutional level, world university rankings are always used. In much the same way, rankings by major, subject, or discipline are used to measure at the departmental level. To strengthen the research collaboration with oversea partners, the establish of offshore research centers or schools are encouraged. In addition, when looking inward to the international faculty and students, their satisfactory rate is an important factor influencing the reputation both at the institutional and departmental level. Table 10 shows the three criteria and related indicators for international reputation.

Table 10

International Reputation

<i>Criterion</i>	<i>Indicator</i>
Discipline reputation	Discipline rankings (eg. Best Chinese Majors Ranking by Shanghai Ranking, THE World University Rankings by subject, QS World University Rankings by Subject 2021)
Offshore institutions	Offshore research centers established Offshore schooling
Satisfactory rate	Satisfaction rate of international faculty Satisfaction rate of international students

3.7 Organizational strategies

Knight and de Wit (1995) ^[25] pointed that organizational strategies are essential when there is an increasing number of academic programs and activities. Also, internationalization has to be entrenched into the culture, policy, planning and organizational process so that it is not marginalized. The strength of organizational strategies lies in the whole which is greater than the sum of individual international activities. Therefore, three criteria are included to measure the organizational strategies: organizational commitment and structure, policy/planning, and reinforcement.

It is of utmost importance that the senior leaders at the department fully understand the key role internationalization played in the overall development of the department, and committed to integrate international dimension into teaching, research and service at departmental level. Apart from the senior leader's commitment, support and involvement of mass faculty and staff is of the same importance to form an pattern with both top-down process and bottom-up process. Most Chinese universities have their international office, but not every single department has international office at departmental level. As the international activities increase, departmental international office and related personnel are necessary to work with international issues within the department and serve as a bridge to link to the university's international office. With the departmental international office, policy and planning related to the departmental international development have to be made in line with the short-term and long-term international goals at both university and departmental level. Reinforcement is another indicator that recognizes the work and contributions made by the department's faculty and staff, complimenting and reinforcing the policies in international development.

Table 11

Organizational strategies

<i>Criterion</i>	<i>Indicator</i>
Organizational commitment and structure	Commitment and support of senior administrators in the department Support and involvement of mass faculty and staff International office and position
Policy/Planning	Services and principles, five-year plan, annual plan, budgets
Reinforcement	The reward and recognition of faculty and staff participation

4. Conclusion

It can be concluded that with the evolve of IHE in China, it is essential to develop an evaluation index framework with indicators for universities to measure the international performance of their departments. In this study, a tentative evaluation index framework at departmental level was formed. The evaluation can be annually or in a five-year span in line with the five-year plan. Annual evaluation can work as an early alert to determine whether the international progress made is in pace with the university's overall goals, while the evaluation at the end of the five-year plan serve as a quality assessment to determine the international investment to the department in the next five years. The weight of each category was not give in this study, but can be given differently from department to department with different discipline emphasis in future research. Further pilot research can also be done to test evaluation framework and improvements can then be made.

Acknowledgements

The research is sponsored by the Shaanxi Provincial Social Science Foundation (2016P023), Xi'an Municipal Social Science and Planning Foundation (19Y57), and Degree and Postgraduate Education Research Fund of Northwestern Polytechnical University (2020AG35).

REFERENCES

- [1] Knight, J. and de Wit, H. (1999). *Organization for Economic Co-operation and Development, Quality and Internationalization in Higher Education*. Paris: OECD, 13-254.
- [2] Wan, M. and Liang, Z. (2021). Research on dynamic adjustment mechanism of "double First-class" university construction. *Journal of Graduate Education*, 6, 85-89.
- [3] Xiang, D.(2016). *The effect of intellectual capital and dynamic capabilities on the internationalization of higher education*, doctoral diss., Northwestern Polytechnical University, Shaanxi.
- [4] [Online] Available: <https://heri.swjtu.edu.cn/info/1022/1072.htm>
- [5] [Online] Available: <https://heri.swjtu.edu.cn/info/1022/1076.htm>
- [6] [Online] Available: <https://heri.swjtu.edu.cn/info/1022/1077.htm>
- [7] [Online] Available: <https://www.asqa.gov.au>
- [8] Zhao, X. (2013). Global review of evaluation for internationalization of higher education - Based on the analysis of the literature. *Modern Education Management*, 9, 116-120.
- [9] M. Bartell, (2002). Internationalization of university: A university culture-based framework. *Higher Education*, 4, 43-70.
- [10] Li, S. (2005). The evaluation index system of internationalization of universities. *Journal of South China Normal University (Social Science Edition)*, 6, 113-115.

- [11] Chen, C., Zeng, M., Wen, D., & Weng, L. (2009). The survey of evaluation indicators for internationalization of research universities in China. *Peking University Education Review*, 7(4), 116-135.
- [12] Wang, X. (2010). Evaluation indicators system of development phase for university internationalization. *Higher Education Development and Evaluation*, 3, 2010, 55-59.
- [13] Yang, F. (2011). *A study on the development and management of internationalization of higher education*. doctoral diss., Tianjing University, Tianjin.
- [14] Ding, S. (2014). *The study on motivation, pattern, and performance of internationalization about research universities in China*, University of Science and Technology of China, Anhui.
- [15] Jin, S., & Li, X. (2014). Comprehensive evaluation of internationalization level of higher education institutions - A case study of Southwest Jiaotong University. *Journal of Southwester Jiaotong University (Social Science Edition)*, 15 (4), 107-112.
- [16] Nong, S. (2021). The construction of the evaluation index system of university internationalization. *Heilongjiang Researches on Higher Education*, 2, 47-52.
- [17] Knight, J. (1994). *Internationalisation: elements and checkpoints*. Ottawa: Canadian Bureau for International Education.
- [18] Johnson, W. (1999). An integrative taxonomy of intellectual capital: measuring the stock and flow of intellectual capital in the firm. *International Journal of Technology Management*, 18, 562-575.
- [19] Bontis, N., Keow, W. & Richardson, S. (2000). Intellectual capital and the nature of business in Malaysia. *Journal of Intellectual Capital*, 1(1), 85-100.
- [20] Brooking, A. (1996). *Intellectual capital: core assets for the third millennium enterprise*. London: Thomeson Business Press.
- [21] Roos, J., Roos, G., Dragonetti, N.C. & Edvinsson, L. (1998). *Intellectual capital*. New York: New York University Press.
- [22] [Online] Available: <https://www.crs.jsj.edu.cn/index/sort/1006>
- [23] [Online] Available: <https://www.usnews.com/education/best-global-universities/articles/methodology>
- [24] [Online] Available: https://www.universityrankings.ch/en/methodology/times_higher_education
- [25] Knight J. & de Wit, H. (1995). Strategies for internationalisation of higher education: historical and conceptual perspectives. In H. de Wit (Ed.), *Strategies for Internationalisation of Higher Education A Comparative Study of Australia, Canada, Europe and the United States of America*. Amsterdam: European Association for International Education.