



Institutional dual identity in research capacity building in IBCs: the case of NYU Shanghai

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Abstract

International higher education branch campuses (IBCs) in China and elsewhere possess dual identity. There are stakeholders on both the home and host sides. While international branch campuses receive scholarly attention, there has been little study of their research and the role of institutional dual identity in research capacity building. This paper develops a conceptual framework that brings the conditions, practices, and outcomes of research together with dual institutional identity, to study research capacity building at NYU Shanghai. Data from 16 semi-structured interviews with academics, administrators, and university leaders indicate that institutional dual identity is central to what the institution has achieved in building research, influencing every aspect of the process. NYU Shanghai's American identity has shaped academic practices and workloads, and NYU's multi-site structure provides significant networks and resources, yet the institution has also adapted to its Chinese identity and local stakeholders. Dual identity has generated policy conflicts and logistical hurdles yet has also opened institutional and academic opportunities unavailable to other US institutions. While every IBC is embedded in a complex and partly unique context, this study suggests a reflexive understanding of research capacity building in such settings, and contributes to empirical knowledge of cross-border institutions, especially in China.

Keywords International branch campus · Research capacity building · Dual identity · Higher education · China

Introduction

Higher education institutions are increasingly engaged in internationalisation efforts worldwide. Internationalisation refers to the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of postsecondary education (Knight, 2003). Internationalisation of higher education is a complex process, which is driven by policy and integral to the life, culture, curriculum, and research activities of the institution and its members (Bartell, 2003). While higher education institutions utilise different approaches to internationalise according to each university's strategic priorities and

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goals, a small number of them have chosen a relatively adventurous way—to establish an international branch campus (IBC) on a foreign soil. Looking at the global landscape of international higher education, China is the largest importer (42 international campuses), while the USA (86) and the UK (43) are key providers of international campuses (C-BERT, n.d.). Encouraged by government policies and initiatives, internationalisation of higher education in China has accelerated since the period of ‘opening up’ began in China in the early 1980s (Marginson, 2018) and several IBCs have emerged in the last two decades.

Historically, there has not been a consensus on the definition of IBC (Wilkins & Rumbley, 2018, C-BERT, 2020; Lawton & Katsomitros, 2012; Knight, 2005). One of the commonly referenced definitions was developed by the Cross-Border Education Research team (C-BERT, 2020): ‘An entity that is owned, at least in part, by a foreign higher education provider; operated in the name of the foreign education provider; and provides an entire academic program, substantially on site, leading to a degree awarded by the foreign education provider’. Naidoo, (2009) noted that an IBC could either be wholly owned by a foreign institution or established through a joint venture effort together with a local partner. Lawton & Katsomitros, (2012) pointed to complexities inherent in the definition: do degree-awarding powers reside with the home institution, the local partner institution, or both? Is the partner institution in the host country involved in governance? Wilkins & Rumbley, (2018) suggested a refined definition which highlighted the significance of ownership, control over strategic decisions, and the need for a physical campus.

The dual identity of international branch campuses (IBCs)

The key to the distinctive character of international branch campuses is their dual origins and structure, and the ongoing fact of individual and institutional agents operating on both the home and host sides of the social equation. This distinctive aspect can be summarised in the concept of ‘**dual identity**’ (Lehman, 2015). The founding Vice Chancellor of NYU Shanghai Jeffrey S. Lehman used this notion to describe the institution’s particular model of international education, with one identity from the home institution while the other one serves the interests of the host country (Lehman, 2015). This study deploys the notion of ‘**dual identity**’ as it highlights the unique characteristic of IBC which is distinctive from traditional higher education institutions. As the extant literature suggests, home institutions, host countries, and host institutions can all be understood as key stakeholders in IBCs (Escriva-Beltran et al., 2019; Tran et al., 2022). While home institutions are mostly motivated by increasing overseas teaching and research opportunities, marketing potential, and/or financial gain, host countries benefit from increasing access to higher education, expansion of research activities, opportunities for academic innovation, and transfer (Agnew, 2012; Becker, 2009; Lane, 2011; Wilkins, 2011).

The roles of both home and host sides are particularly evident in the Chinese context. In March 2003, the Chinese government passed legislation on ‘Regulations of the People’s Republic of China on Sino-foreign Cooperation in Running Schools’ (MOE, 2003). It conveyed the message that the establishment of such institution had to be a joint effort between a foreign education provider and a Chinese partner institution. For example, Liverpool University has established Xi’an Jiaotong Liverpool University in Suzhou, Jiangsu Province, jointly with Xi’an Jiaotong University. Similarly, Duke University partners with Wuhan University, to set up Duke Kunshan University. These joint institutions offer dual degrees to their graduates and are governed jointly by home and local partner institutions. They carry one identity via the home country institution and another via the host country and its institution. In China,

all institutions are thoroughly embedded in national, provincial, and local government (Han & Xu, 2019), including the IBC examined in the present study.

In terms of the scholarly examination of the concept of institutional dual identity, there are studies that hint at the notion of dual institutional advantages for, or pressures on, IBCs (e.g. Bellini et al., 2016; Edwards et al., 2014; Healey, 2016; Knight, 2015). Shams & Huisman, (2012) synthesised the managerial complexities of IBC using a dichotomy of global integration–local responsiveness (I-R dichotomy), in relation to the three separate dimensions: curriculum, staffing, and research. Shams & Huisman, (2016) adapted the concept of institutional dual embeddedness from literature on multinational enterprises to describe the double forces that home and host sides exerted on an IBC. Figueiredo, (2011) explained the notion of dual embeddedness as simultaneous engagement in both intra-corporate and local embeddedness, which helps explain dual identity in the context of IBCs.

Scholars have highlighted factors that determine sustainable success in cross-border education in IBCs. Again, these insights suggest processes of touching base at both ends of the relationship. The relevant factors include an internationalisation of the curriculum that provides learning outcomes equivalent to those of the home institution, the development of transnational staff rather than foreign faculty flying in for brief periods, and a set of regulations that guides the institution in a clear and transparent manner while ensuring that it contributes to the social and economic development of the local society (Allahar & Sookram, 2018; Escrivá-Beltran et al., 2019; Jing et al., 2020; Tharapos & O’Connell, 2020).

In the present study, the dual identity of IBC refers to the simultaneous engagement in both home identity that comes from the home institution, and host identity shaped by the host country and the local partner institution. Focusing on a single IBC, the study makes a distinctive contribution to research on IBCs and their dual identities in two respects.

First, the study employs its single-case study design (Yin, 2013) in the investigation of the founding American IBC in China, NYU Shanghai. Of the Anglophone IBCs in China, there have been more previous studies of the UK IBCs in China (Feng, 2013; Liu & Lin, 2017; Ong & Chan, 2012; Zhuang, 2012) than the American institutions. The collaborative partnership of New York University (NYU) and East China Normal University in Shanghai is of special interest given that both are major research universities in their respective countries, and also given present geo-political tensions between the USA and China (albeit tensions more evident since the research for this study took place). Collaboration is no longer something to take for granted.

Second, the study focuses especially on research activity and capacity building in the IBC. IBCs are generally considered teaching institutions, yet evidence (Pohl & Lane, 2018) showed that a third of IBCs are research active (Lane et al., 2021). In previous scholarly examinations of IBCs in China, the literature has focused extensively on the teaching side including curriculum delivery, quality assurance, and student experience (e.g. Feng, 2013; Zhuang, 2012). Studies of IBC research activities have been limited, and confined to publication output using quantitative techniques (e.g. Pohl & Lane, 2018; Yang et al., 2014). The present study uses qualitative research techniques and draws out contextual and experiential issues such as the role of government and regulation, the impact of NYU Shanghai’s research in the local setting in China, and the implications of dual institutional contexts, relations, and identity for academic careers.

Of course, a study of research capacity building in a single IBC in China is just that it cannot claim to *represent* the relatively small but multiple groups of institutions (either in China or elsewhere) that share the IBC form in different national, policy, and historical settings, with varying missions, profiles, sizes, and other characteristics. Nevertheless, not only is the single example interesting in itself, the present study does

expand the common understanding of research capacity building in the IBC category, by developing a conceptual framework that might have broader applicability in research. That conceptual framework (discussed in more detail below and summarised in Fig. 1) focuses on three interacting elements—the conditions, resources, and outcomes of research—in conjunction with dual institutional identity. The conceptual framework is developed in light of the extant literature. It incorporates as one element of the characteristic of institutional dual identity. The framework has guided data gathering and is used again in setting out the findings of the study.

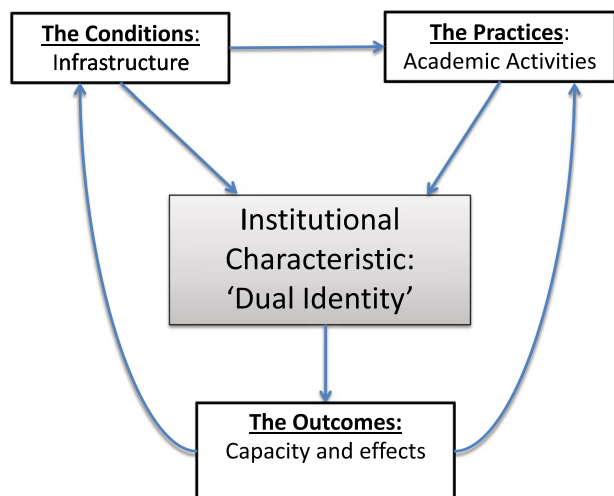
The empirical research underlying this study focused on the effects of dual identity on the institutional research capacity building process, in the context of an IBC in China. The study has sought to answer the following research question: *What impacts does the dual identity of NYU Shanghai have on the experience of research capacity building?*

The study begins by discussing research capacity building in relation to these three elements, and dual identity issues, grounding the conceptual framework in terms of the existing literature on research capacity building and IBCs. It goes on to explain particular features of NYU Shanghai. Then, the methodology of the empirical aspect of the study is explained, followed by the substantive findings, discussion, and conclusions. It is hoped that the study is relevant not only for university leaders and administrators at IBCs in China, but also those working in any institution that is affected by dual identity that crosses national borders, and perhaps, to some extent, all new small to medium-sized institutions with ambitions in research capacity building.

Research capacity building

As shown by the Organisation for Economic Cooperation and Development (OECD) data on research and development (R&D), many nations are growing their investment in R&D (OECD, 2022). China's national policy and its focus on active engagement in the global science system have led the country's rapid growth in higher education and science (Wu, 2007; Marginson, 2018, 2022). Research capacity building has become a significant theme in higher education

Fig. 1 Conceptual framework for the study of research capacity building in IBCs in China. Source: First author



institutions in China through the implementation of successive national initiatives such as 211, 985, and Double World-Class projects, which have continuously accelerated research (Mok, 2003; Zhang et al., 2016). Sustained national funding in higher education institutions has supported the growth of research output (Zhang et al., 2013). Although a standardised research assessment mechanism has not been in place in China, faculty member's research performance has been highly valued in recruitment, promotion, and job security (Lai, 2009). Academics are motivated to obtain, strengthen, and maintain their capabilities to perform research throughout their professional life in order to achieve their career objectives.

International organisations have played a leading role in developing concepts of capacity building (World Bank, 2005; UNDP, 2008). The United Nations Development Program (UNDP, 2008) provided a definition of capacity building that is helpful in relation to research capacity building. It defined capacity building as the process through which individuals, organisations, and societies obtain, strengthen, and maintain the capabilities to set and achieve their own development objectives over time. The definition can be applied to the context of research at national, organisational, and individual levels, treating it as an iterative and dynamic process rather than a fixed state. The definition applies well to the present study, as it stresses the dynamic nature of the concept.

Scholarly attempts to theorise research capacity building across the world have conceptualised the process into different types, levels, and power dynamics (Potter & Brough, 2004; Cooke, 2005; Bosch and Taylor, 2011, Lee & Kuzhabekova, 2019). Potter & Brough, (2004) identified aspects of infrastructure, dividing research capacity building into nine types: performance, personal, workload, supervisory, facility, support service, systems, structural, and role. Evaluation of research capacity building in the healthcare sector was guided by principles including building skills and confidence, ensuring the research is close to practice, developing linkages and partnerships, developing appropriate dissemination to maximise impact, building elements of sustainability and continuity, and investments in infrastructure (Cooke, 2005). Bosch and Taylor (2011) developed a framework that placed higher education institutions in two research development phases, by identifying their management philosophy, focus of institutional mission in relation to teaching and research, academics' mindset towards research, research evaluation, and performance management. Lee & Kuzhabekova, (2019) demonstrated different levels of research capacity building—resources, locality, relevance, human capital, and culture—and emphasised that the sustainability of knowledge production required attention of most levels in policymaking.

While many empirical studies have been carried out to understand, evaluate, and measure research efforts at traditional higher education institutions (Shera, 2008), research capacity building at IBCs is an under-researched area. Extant literatures have addressed the topic through various lens and focuses, which can be categorised into three primary aspects: conditions affecting research including organisational structure, policies, and resources (e.g. Garrett, 2018; McGill & Settle, 2012; Mullen et al., 2008); practices including research activity and performance (e.g. Wilkins, 2016; Hill et al., 2014); and outcomes including research output and impacts (e.g. Yang et al., 2014; Pohl & Lane, 2018). This three-way approach has influenced the present study. The study also examines research capacity in the IBC with continuous attention to dual identity issues.

Conceptual framework

In light of the existing literature, this study works with an integrated conceptual framework for understanding research capacity building in an IBC in China (see Fig. 1). As noted, this

conceptual framework was used to both collect the study data and to analyse those data. A feature of this framework is that the effects of both the conditions of research activity, and the academic practices associated with that activity, in research capacity building and outcomes, are mediated by the distinctive dual identity of the IBC.

Dual identity

In IBCs in China, both parts of the dual identity are strong and determining.

The foreign identity comes from the home institution (NYU in the particular case under study), which provides strategic guidance in relation to academic curricula, research infrastructure, and organisational standards. The foreign identity also enables access to higher education in the host country, is a starting point for new academic programmes, develops and extends the research network and in that respect research capacity, and opens opportunities for academic innovation and transfer across the board (Agnew, 2012; Becker, 2009; Knight, 2011; Lane, 2011; Wilkins, 2011). It also helps the IBC to serve as a vehicle for experimentation in innovative approaches to teaching, research, and university administration in China (Lehman, 2015).

The Chinese identity is shaped by the institution's legal status as an independent Chinese higher education institution, the support and regulatory influence from the Chinese government, as well as the crucial role of its Chinese partner institution. The organisational structures of IBCs in China are shaped by China's regulations that require a partnership with a Chinese university (Borgos, 2016). The Chinese partner institution contributes by increasing access for student recruitment, navigating government relations, as well as assisting the institution to integrate into the local research community.

The government influence in IBCs in China has generated concerns about processes of quality assurance and academic administration (Ong & Chan, 2012). Previous research has also pointed out that successful management of IBC requires positive working relationships with local regulators and complying with local regulations (Garrett, 2018). Balancing expectations of internal and external stakeholders from both home and host sides can be very challenging (Healey, 2016).

Conditions and infrastructures

Scholars have identified major forms of research support in traditional higher education institutions, including time to pursue research and scholarship; infrastructures, equipment, and technical assistance; and the funding that underpins all of these (Freedenthal et al., 2008). Financial and material resources were perceived as the most critical element in success. However, intellectual resources such as availability of mentors were deemed significantly more important by junior faculty (Mullen et al., 2008).

Research has shown that staffing has been the major strategic challenge perceived by international campuses (Edwards et al., 2014; Tran et al., 2022) that impacts the research capacity of the institution. Previous studies investigated the effectiveness of institutional resources and support in terms of faculty research productivity, tenure, and promotion (McGill & Settle, 2012). Mature IBCs introduced academic staff development and assessment of home campus (Garrett, 2018). An empirical study on IBCs of UK universities found that although some of the IBCs had started to develop a research culture, not all of the necessary research infrastructure was in place, such as adequate numbers of PhD students (Healey, 2016).

In the context of this study, ‘conditions’ refer to research infrastructure that includes organisational structure, internal policies and regulations, supporting resources such as material, financial, intellectual, and administrative support, and also external factors such as the policy setting in China and the strategies of the home institution.

Practices

‘Practices’ in the context of higher education institution typically refer to faculty and professional work, including teaching, research, and administrative duties. Studies of research practices discuss when, how, and what to conduct those activities. An examination of research practices not only includes research itself, but also the nexus between research and other academic responsibilities. The relationship and balance between teaching and research have been widely studied (e.g. of many Elen et al., 2007).

In IBCs, geographical factors (including time zones) and cultural differences create communication barriers and have made it more difficult for these institutions to achieve capacity building objectives (Hill et al., 2014; Wilkins, 2016). In light of the characteristic of IBCs, practices in this study refer to the research practices and relevant academic activities conducted by academic faculty, which include the choices of research topics, issues that emerge during the process of conducting research, as well as the work balances among the roles of teaching, research and advising.

Outcomes

As noted, previous studies on the research outcomes in the context of branch campus model in China have mostly focused on research productivity and publication outputs. Yang et al., (2014) examined the publication output of three Sino-foreign joint venture universities in China from 2006 to 2013 and compared the results with local universities. They reported that despite substantial growth in the previous five years, Sino-foreign campuses still produced much less publications compared to local universities. Another study revealed that IBCs in general were active in research and both the host and home institutions influenced their publication quality and collaboration patterns (Pohl & Lane, 2018). A more recent study highlighted the contribution of IBCs worldwide to both the research capacity of the host country while expanding the research profile of the home institution (Lane et al., 2021).

In the conceptual framework used in this study, summarised in Fig. 1, ‘outcomes’ refer to the research capacity generated, which includes the research outputs, and takes into account the effects on both the home institution and the local community in the country of education. However, the evidence gathered in the study is focused largely on the local effects in China and does not fully explore the effects in the home institution.

Interactions and dynamics

In Fig. 1, the given conditions, including finances, infrastructure, and intellectual resources, can either facilitate or hinder the research practices of faculty. While the generative and essential role of funding is obvious, much is determined by how it is administered, while unfavourable policies and regulations might affect the effectiveness of research practices.

As noted, in the context of IBC in China, resources and practices are both filtered by institutional dual identity. The foreign identity and Chinese identity together shape the

infrastructures, policies, and the way faculty members undertake research activities at the institution. All of these elements generate the outcomes, which are research capacity and its effects. Research capacity building in turn feeds back into the conditions and practices of research, so the framework of research capacity building is partly self-reproducing, as is the case in all research universities. Research capacity is not wholly self-reproducing, because the conditions that affect research activity also include externally provided resources and external factors in governance, as will be discussed.

Within the institution, examination of the outcomes enables reflection on the strengths and weaknesses of institutional conditions, and organisational and individual practices. The conceptual framework suggests an iterative reflexive circle.

NYU Shanghai

Founded in 2012, and as noted the first Sino-American IBC, NYU Shanghai was established jointly by top-tier higher education institutions—New York University (NYU) in the USA and East China Normal University (ECNU) in China.

As a comprehensive research university, NYU Shanghai offers Bachelor, Master, and PhD programmes in 19 academic disciplines of Arts and Sciences, Engineering, and Business. In the year of the research in 2019, prior to the global pandemic, the campus consisted of 1300 students, with half from China, and the other half from the USA and 70 other countries (NYU Shanghai, *n.d.*). Graduates receive a degree from NYU in the USA, accredited by the Middle States Association of the USA, and a degree from NYU Shanghai itself, accredited by China's Ministry of Education.

NYU Shanghai is distinct from other higher education institutions in the Shanghai region in four ways. First, it has an international student body which creates a multicultural education environment. Second, it delivers a liberal education. Third, undergraduate students study a core curriculum in Shanghai for the first two years and then spend their junior year at NYU campuses elsewhere in the world. Fourth, it selects its students that meet the admission standards of the home campus. Chinese student entrants also must score higher than the cut-off points for first-tier universities at the Chinese College Entrance Examination in order to be admitted (Zhang & Kinser, 2016).

Among IBCs with dual identity, NYU Shanghai stands out for its emphasis on research, and its strong support from local government. In terms of its American identity, it is expected to help NYU to become a true global network and to promote an ethic of cosmopolitanism (Lehman, 2015). In terms of its Chinese identity, it is expected to be a role model and pioneer of Chinese higher education reform (Yu, 2018). In research, NYU Shanghai has set up centres and joint institutes with ECNU that address emerging scientific and social challenges, in mathematical sciences, computational chemistry, brain and cognitive science, social development, physics, Asian studies, data science and artificial intelligence, business education research, and health and medicine (Yu, 2018).

Methods

Data collection took place in April and May in 2019. The primary source of evidence was semi-structured interviews (Cohen et al., 2017) with academic and administrative staff members at NYU Shanghai. Purposive sampling strategy (Creswell, 2013) was adopted to select participants most familiar with the institution, and directly involved in research activities, and who could provide the most relevant and rich information (Flick, 2009). Interview invitations were extended to university staff members who met the following two criteria: (1) currently employed full-time at NYU Shanghai and (2) affiliated with research centres or joint research institutes of the institution. Visiting scholars and adjunct professors were excluded because it was expected that they would be less familiar with the institution than full-time academics.

A total of 16 staff accepted the invitation and were interviewed for the study. The participants came from a variety of academic disciplines, including natural sciences (2 interviewees), engineering (2), business (4), humanities (4), arts (1), and social sciences (3). Half of the 16 staff were international faculty members and half were from China. The majority of the participants were junior faculty members who were either on tenure track (9) or in non-tenure track contract positions (3). In addition, three tenured professors participated in the study. Interviews with one administrative staff member and one university senior leader (also a tenured professor) serve to triangulate faculty's perspectives, and to provide general views on institutional structure and overall strategy with regard to research. The sample included welcome heterogeneity in the target population, aside from the unbalance between senior and junior faculty and in terms of gender (12 male and 4 female), factors which weaken the generalisability of the results.

This study received ethical approval from researcher's university. The contributions of all participants were anonymised to protect their right to privacy and confidentiality. In reporting the findings, the researchers have used generic descriptions so that participants are less identifiable (Punch & Oancea, 2014).

Each interview lasted from 45 to 60 min. The Chinese participants all chose to conduct the interview in their native language, Chinese, while the remaining interviews were carried out in English. The interviews were audio-recorded with the full knowledge and permission of participants. Data were transcribed verbatim, and then analysed with the help of computer-assisted qualitative data analysis software NVivo 12. The coding process started from a list of pre-developed codes guided by preparatory investigation. These codes were constantly revised as the coding process progressed. In the second cycle coding process, pattern codes were used to condense the coded data into a smaller number of analytic units and to explore logical connections (Saldaña, 2016). The data analysis was inspired by the Miles & Huberman, (1994) framework, which involves on-going process of data collection, display, condensation, and verification.

Findings

This section presents findings from the 16 semi-structured interviews with faculty members and university administrators at NYU Shanghai. The findings are presented in terms of the analytical framework in Fig. 1.

Institutional dual identity

‘Dual identity’ does not necessarily imply that the two parts of an institution’s identity are equal or equivalent. NYU Shanghai was an American University because it is the third degree-granting campus of NYU. The findings of this study suggest that it was more an American University than a Chinese University. The home institution NYU was responsible for the curriculum, academic standards, and the full dimension of the student experience. This contrasted with Sino-British institutions, where the British side was responsible for academic governance, while the Chinese partner was in charge of student services and Chinese cultural aspects (Zhang & Kinser, 2016). In terms of the curriculum, while preserving an American approach to general education element is often perceived as a major challenge by US institutions when working with foreign partners (Chan, 2021; ACE, 2014), NYU Shanghai had managed to adopt the liberal arts education approach from home institution. Likewise, the internal policies and regulations of NYU Shanghai were transferred from the home campus NYU New York. As the senior university leader noted:

NYU Shanghai was invited to open here by the Chinese government to create a possible model of transformation of higher education in China. We do things in a more international and American way than Chinese way.

Interview participants also reported that they had a standard American job in terms of the rules that governed their academic activities, the way they were evaluated, and the academic atmosphere inside the institution. There were some mixed feelings about this. While several participants stated that the application of NYU policies would have positive effects in the local academic community, others questioned the compatibility of the American standard in the Chinese context.

NYU Shanghai was a Chinese University because it had independent legal status in China, approved by Chinese Ministry of Education, and was physically located in China. Furthermore, and significantly, its resource base was in China. It was not subsidised by its home institutions in the USA: it operated on the basis of student tuition payments, together with support from Shanghai municipal government (Lehman, 2015).

Due to its physical presence and legal status, in China, NYU Shanghai was required to comply with local polices and regulations. For example, the ‘Sino-foreign Cooperation in Running Schools’ policy required that the president of an international college in China must be a Chinese citizen, and no less than half of the board of trustees must be Chinese citizens (MOE, 2003). At NYU Shanghai, Yu Lizhong was appointed the first Chancellor in 2012 and Tong Shijun serves as the Chancellor after Yu retired in 2020. Jeffrey S. Lehman from the USA was the Vice Chancellor of the university. In China’s IBCs, there must be a Chinese partner, and NYU Shanghai had a Chinese identity because of its affiliation with the institution’s Chinese partner and co-founder—ECNU. Faculty members at NYU Shanghai not only had access to the shared equipment and physical space at ECNU, but were also closely involved in the ECNU research community.

While the American and Chinese identity both shaped the institutional operation and research activity, the combination of two identities had broadened the aggregated research capacity for all parties and created new opportunities at NYU Shanghai. One natural science professor appreciated the double identities:

NYU Shanghai is like an interface, brings the best from both sides together, and creates opportunities. That’s why I came here.

At the same time, the findings also resonate with those of previous research (Healey, 2016; Shams & Huisman, 2016) that noted challenges and conflicts that arose from having two sets of stakeholders in dual identity institutions. As the university leader pointed out, the challenge was to show ‘two sets of people’ that the practices and innovative approaches were ‘valuable and worthwhile’: the Chinese government, local partners, and general public in China; and the NYU home campus in New York in the USA. It was necessary to ‘send out a single message’ that would work with separated groups of stakeholders from distinct backgrounds and perspectives. This was not always easy.

Conditions and infrastructure

With regard to the conditions of research capacity building, the interview questions focused on organisational structure, internal policies and supporting resources.

In terms of organisational structure, faculty members, especially those from social sciences and business, perceived lack of scale, or being at a small institution, as a major drawback in conducting research. Lack of scale, in this study, refers to the shortage of researchers including faculty members and postgraduate students at the institution. For example, one business professor described the issue as ‘lack of critical mass’ and ‘diseconomies of scale’. This factor was commented on by 12 out of 16 interviewees. Previous studies of research capacity building in traditional universities have stressed the importance of structural roles, including senior mentorship and research team building (Mullen et al., 2008; Potter & Brough, 2004; Schrodt et al., 2003). These functions are scale dependant. At IBCs, staffing has been seen as a major challenge (Edwards et al., 2014; Tran et al., 2022). The present study appears to confirm these insights.

Interviewees specifically mentioned the lack of enough senior staff or scope for large teams. Faculty from social sciences disciplines mentioned a lack of postgraduates, especially doctoral students. PhD education was available only in seven academic disciplines in natural sciences and engineering. Insufficient scale was addressed by utilising institutional networks and associated resources at both international and local levels. As the senior university leader put it:

Here I would say this is a relatively small institution, but we have this huge NYU behind us, particularly New York and Abu Dhabi. We have a lot of cross campus collaboration.

An engineering professor described the joint doctorate programme with the New York campus as one method of handling scale problems. This had helped in developing research teams. A social science professor noted that the collaborative relationship with ECNU allowed him to recruit PhD students through the Chinese partner.

Faculty members from humanities suggested that the institution should better utilise the potential of networks by establishing a systematic mechanism for senior mentorship that would operate between faculty members in Shanghai and New York. A natural science professor pointed out that strong academic support in New York was essential if there were to be meaningful interactions between faculty members in the two cities.

Time to pursue scholarship is one of the major forms of institutional policy support for research (Cooke, 2005; Freedenthal et al., 2008) and the study findings appear to confirm this. Faculty valued the protected time to undertake research that was provided by NYU. In this regard, they saw American identity as an asset: the workload model had been imported from NYU New York. Faculty members from humanities and social sciences were

particularly appreciative of what they saw as a modest teaching load, in comparison with Chinese faculty in other institutions, which allowed them more time to conduct research. One tenured social science professor from outside China commented that the teaching load was very light in comparison with other universities worldwide. The policy was especially favourable for junior professors on tenure-track:

If they pass the third-year review they get a half year without teaching or administrative duties plus they have the integration semester... they will have at least one year, totally free to any duties, other than focus on their research. That's a really good contract.

The tenure evaluation policy and ethics review system were both transferred from US practice. Faculty members preferred the American tenure evaluation system to the Chinese one. A Chinese tenure-track business professor currently in his third year stated that professors from both NYU New York and NYU Shanghai would review his progress and provide feedback. Whereas the local Chinese universities usually require a specific number of publications, this was not required in the US tenure and promotion system.

However, there were mixed views about the ethics review system. Ethics review was required to comply with regulations in both countries and conflicts could arise. As a matter of policy, the institution followed the more stringent rule, and this could delay the process of ethics approval. Some faculty members found this frustrating. Others saw it as beneficial to the research project in the long run.

Not surprisingly, the findings are consistent with prior studies (Freedenthal et al, 2008; Mullen et al., 2008) which identified financial and material resources as major supports in research and research capacity building. One Chinese engineering professor described his lab at NYU Shanghai as the best computer music lab in Asia, even better than the one at his previous institution in the USA. In this and some other cases, the fact of institutional dual identity assisted with resource provision. Faculty had access to funding opportunities in both countries. For larger scale research projects in the science field, the institution utilised its connection with ECNU, sharing the latter's physical space and equipment. As one Chinese professor of natural science pointed out, this helped to compensate for the physical constraints of the NYU Shanghai site.

Faculty saw data access as another critical resource. At NYU Shanghai, members have direct access to an international network. This was a large advantage in comparison with local Chinese universities subject to 'Great Firewall' regulation (Zhong et al., 2017). Dual identity allowed the institution to source digital networks in both countries.

Academic and research practices

Because faculty at NYU Shanghai had relatively modest teaching loads with more time to conduct research than faculty in many other universities, both tenured and tenure-track faculty members reported a satisfactory balance between teaching, research, and advising. As they saw it, they shared this with NYU faculty elsewhere.

However, in some other respects, research practice at NYU Shanghai was distinctive and reflected dual identity. A number of faculty were focusing on research specifically relevant to China, especially in humanities and social sciences fields. For China-focused scholars at NYU Shanghai, the location of the campus was a decided asset. Their research subjects and sites were close at hand, they were able to work more effectively on theoretical topics

relevant to the Chinese context, and they could become closely connected to the local community and contribute to its real-world challenges. One Chinese Arts professor provided an example of an on-going local research project:

My colleagues are involved in a water heritage project in Shanghai. They have been collaborating with Shanghai Academy of Social Sciences, to study water preservation and re-utilisation.

Some faculty who worked on research topics not directly related to China nevertheless expressed interest in exploring the possibility of work relevant to the Chinese context. One international social sciences professor stated that being in a place different from home and interacting with people from different cultural background enriched his thinking and perspectives:

Come to a new place, like China. What does my research mean here? There are many topics I can perhaps work on. It's been very useful for me to come here. I have become interested in my field again.

However, the findings of the study also suggest that dual identity could create hurdles for research practices. Previous research highlighted the challenge of communication barriers (Hill et al., 2014; Wilkins, 2016). Likewise, in this study, international faculty members reported language barriers which hindered their research practices. One international humanities professor explained his frustrations when communicating with local scholars:

Because my Chinese is not good enough to have a philosophical conversation, so I am limited to only engage with faculty who can themselves speak a good level of English, and who work on topics that are similar to mine.

Another international professor from social sciences pointed out the difficulty of working the local grant application system, which required Chinese language. Although the university offered assistance in translation, he was worried about the quality of the paperwork used for the application:

The language is one of the issues ... where you have a Chinese language application portal and you can't have final control of your text...because elegance of expression, that's something I cannot have control over.

The time difference was another barrier, when communicating with collaborators overseas. An international social science professor noted that this made it more difficult to conduct innovative discussions:

There are collaborating projects but it's exactly 12 hours away, it's like the wrong time always...that's the worst... you can still find the time where two people are awake, but not for brain-storming.

Furthermore, while faculty saw the accessibility of international data as a big advantage at NYU Shanghai, both the Chinese and the international professors expressed frustrations about accessing local data sources. One Chinese business professor stated that unlike the situation in the USA and Europe, public data in China were very limited. Obtaining local data in his field usually required additional connections with external stakeholders. An international social sciences professor echoed these comments. She described the Chinese data as 'protected and guarded'.

The outcomes: capacity, effects, and impacts

Within the setting of dual identity, the conditions and practices of research activities together generated research capacity and outcomes at NYU Shanghai. Existing literature noted that IBCs can contribute to the host country by developing research capacity, introducing new academic programmes, and reducing brain drain (e.g. Agnew, 2012; Becker, 2009; Knight, 2011; Lane, 2011; Wilkins, 2011). The findings of the present study suggest similar contributions and impacts in China, in that American practices introduced innovative research infrastructure and systems, and also new academic disciplines and research areas for the local knowledge community:

We are the first higher education institution in China that awards neural science degree at bachelor level. Later on, Chinese Academy of Sciences and Tsinghua University also have that, but we are the first – Natural science professor

We have a new research field at Institute of Fine Arts, called time-based media art and conservation. This new area studies how the virtual information is conserved, this is a new discipline even in the U.S. I think I should bring this to the local cultural relic industry as well - Arts professor

One social science professor suggested that the NYU Shanghai model and ways of operation may have a stimulating effect among other local universities, thus contributing to local research capacity building efforts in these institutions:

I think that the fact we are here could have a competitive effect on other Chinese universities. The fact we are here might spur other (universities in) Shanghai ... to do more collaboration with us. Or they will see the way we operate and pick up ideas on how they should learn from us. I think that could be a benefit.

The institution had also introduced the American liberal arts education model in Shanghai. Participants suggested that this could produce innovative talents that were different from those students graduating from traditional Chinese universities.

Those graduates are like seeds in China, they will change the society – Chinese engineering professor

Moreover, the American infrastructure and Chinese locality, together with connections through the NYU global network, attracted international and local scholars and brought international collaborations to a new level. A university leader described NYU Shanghai as a bridge between the best scholars in China and the rest of the world. The leader emphasised that the physical presence of the institution created a different level of collaborative relationship, compared to short-term visits by foreign scholars, which had been a common practice at local universities in China:

(There are) incredible opportunities between Chinese and international scholars, which might not arise if we didn't exist here in China and in Shanghai, as an institution. It's different to flying in for a month, or even three months. If you are here all of the time, it creates a whole different relationship... I think it does make a difference.

Dual identity also provided a competitive advantage for the institution in that its double set of links helped it to work with external partners, including government, public institutions, and industries, in generating long-term impacts in local Chinese society. Faculty members at NYU Shanghai interacted frequently with local government and public

institutions on projects that addressed local issues. For example, one natural science professor described his work with the Shanghai municipal government, which was expected to deliver tangible results in relation to real-world challenges:

I have been involved in some large-scale projects of Shanghai municipality, and those projects emphasise on tangible results, other than publications... to explain some phenomenon and solve real problems.

However, both Chinese and international professors mentioned challenges that arose in working with external partners. One Chinese engineering professor pointed out the gap between academics and industry:

We don't have a mature education-industry interaction system here... You have to negotiate case by case...some of them (industry) don't understand your research, even they are doing business in this field.

One international social science professor expressed frustrations about working with the public system in China. The system was described as 'conservative and not open to outsiders'. The interviewees went on to add that: 'outsiders mean academics, but also foreigners, and you know I happen to be both'.

Dynamics and interactions

The conceptual framework used in this study has enabled capacity building to be identified as a dynamic and iterative process. Previous studies identified crucial elements of research capacity building including system design, supporting resources, facilities, workload and performance management, focus on research impact, and sustainability of capacity (e.g. Cooke, 2005; Potter & Brough, 2004; Shera, 2008). Yet these studies mostly treated the key elements as discrete and did not focus on interactions or on contextual variations. The present study draws attention to the interactions between conditions, practices, and outcomes in the context of dual institutional identity.

The ethics review process provides as an illustration of the dynamics. The ethics review standard of NYU Shanghai was initially developed on the basis of the Institutional Review Board (IRB) of NYU New York. However, operating in the context of the Chinese academic system, the IRB precepts had to comply with local regulations as well. As noted, where the two systems come into conflict, the institution followed the more stringent standard. Although sitting in the middle of two systems could slow research administration, in the long run, operating with a higher standard of ethics review system could be beneficial to research projects by rendering them more sensitive to the local setting and stimulating improvements in existing ethics review and regulations.

Universities are highly regulated in the Chinese context and the operation of NYU Shanghai is partly funded by the Shanghai municipal government. A number of the outcomes and effects illustrated in the findings, including the establishment of NYU Shanghai research mechanisms more efficient than those prevailing in other local institutions, the cultivation of innovative talents, improvements in the research evaluation system, and recruitment of leading international scholars, were also outlined as key strategic priorities in the Chinese government documents relevant to research (MOE, 2010, 2016). Capacity building and other impacts in the institution that aligned

with national strategic priorities were particularly helpful in ensuring continuous financial and policy support from local government in Shanghai, furthering the sustainable operation of the institution in the longer run.

Discussion and conclusions

Despite the many insights into international and comparative education that are offered by IBCs (e.g. Shams & Huisman, 2012), and notwithstanding the various research papers on IBCs cited in this study (e.g. Pohl & Lane, 2018), empirical studies of IBCs, especially in China, are rarer than they should be. Possibly this is because the operations of IBCs are considered matters of commercial secrecy (Healey, 2016). This study has sought to make a distinctive contribution by focusing on a Sino-American IBC in China, by focusing on research capacity building in the IBC, and by developing a conceptual framework for the observation and analysis of that research capacity building. Like all studies, it rests partly on insights developed in previous studies of research and of IBCs, while also adding something new—in this case, by giving sustained attention to the dual institutional identity of IBCs, always apparent in China, and reading the other parts of the conceptual framework partly through this lens.

As noted, previous research indicated that the dual influence from home and host sides of IBC created both advantages and challenges (e.g. Shams & Huisman, 2016). Data from 16 semi-structured interviews with academics, administrators, and university leaders confirm that dual identity influenced every aspect of research capacity building at NYU Shanghai and was central to what was achieved at the case institution.

Dual identity shaped the way infrastructure and research practices were developed and implemented. Internal policies and standards mostly came from the institution's American identity, yet had to adapt to and comply with its Chinese identity. Dual identity brought with it supporting infrastructure from both countries, including financial, material, and intellectual resources (Mullen et al., 2008), and both generated and addressed organisational challenges. Scale was experienced as a major disadvantage in the conduct of research activities, resonating with findings of previous studies (e.g. Tran et al., 2022) that staffing is a challenge for IBCs, yet the double foundations of the institution also broadened its access to people and networks.

In the case of this IBC, with its strong double foundations, the operating rules of resource use were different to those facing single-identity institutions. The dual structure of the IBC helped institutional managers to modify the zero-sum character of relations teaching and research. In a still relatively young institution, building both was necessary, and at NYU Shanghai, there were no short-cuts in relation to either teaching quantity or quality. However, even while providing adequate research time for local faculty, and drawing on the research facilities of each parent university, local managers in Shanghai could access the academic infrastructures, learning resources (e.g. technology, libraries, MOOCs, guest scholars and scientists) of the parent university in New York to stimulate and supplement Shanghai teaching. The potential to extend teaching and learning in this way is a fundamental resource advantage unavailable to most other small institutions.

At the same time, the academic practices of faculty were markedly affected by the locality of the institution, in China and again in both positive and negative ways. Faculty found it attractive to conduct research related to the Chinese context, but for some, there were communication challenges including cultural, time, and language differences (see also

Wilkins, 2016). Previous studies had concluded that the research productivity of IBCs in China was still relatively low compared to the research output of some Chinese higher education institutions (Pohl & Lane, 2018), and this was especially apparent when quantitative indicators are used. However, most high-performing Chinese institutions were much larger, and the focus solely on single institution to institution comparisons missed another aspect—the potential of the IBC for positive influences on the local research ecosystem, which was suggested by several interviewees in the present study.

The American identity brought with it innovative research infrastructure, and different and successful research policies and practices, while NYU Shanghai's dual identity tended to promote international academic collaborations and attract talents from home and abroad. The dual identity also had the potential to contribute to and facilitate external collaborations with government, industry, and the public. Contributions to local society were crucial to ensure the sustainability of the institution (Allahar & Sookram, 2018).

The conceptual framework used in this study has implications for higher education managers as well as scholars who study higher education. It points towards ways of understanding research capacity building, in the dual identity institution (or any other), as a reflexive process. Institutional leaders can examine the outcomes of research capacity building to reflect on the strengths and weaknesses of the conditions and practices shaping research. In the dual identity institution, that means examining conditions and practices in both the several parts of the institution and in the interactions between them.

Relationships within the organisation contribute to its on-going improvement. Institutional leaders, reflecting on the strengths and weaknesses of the existing infrastructure and practices, suggest innovations designed to improve conditions and practices. High calibre researchers and scholars attracted by the institution both enhance research practices and strengthen infrastructure building. Constructive interactions with external stakeholders of the institution also build its reputation and encourage additional practices that address real-world challenges and generate further positive outcomes. Impacts that address the local policy context can be crucial for institutions in China.

Of these elements, human resources are the most essential to research capacity building (Salmi, 2009), and lack of scale is a severe handicap for small newer institutions. Yet IBCs derived from research universities can mobilise unusual assets arising from their dual identity. This study of NYU Shanghai has shown that faculty value NYU's international research infrastructure, its workload model and tenure system, and its academic atmosphere, even while the physical location in China is advantageous and attractive for particular research fields and topics; and like many IBCs, it also opens up alternative career paths that might potentially lead to a broader set of choices. In IBCs, institutional leaders should strengthen areas that are deemed crucial to faculty and target those who value the specific characteristics of the institution for recruitment purposes.

Future studies of research capacity building at cross-border higher education institutions might be conducted in parallel with studies of research capacity building at traditional universities, to better identify the strengths and weaknesses and dynamics of IBCs. However, this study of NYU Shanghai also indicates that in some respects, every IBC is unique, the outcome of an elaborate historically nested arrangement, one that is continually moving and evolving, in which multiple agendas, trajectories, and contexts are in play. Each such study provides additional insights into the complex relations that comprise cross-border higher education. These fertile institutions are having incalculable and perhaps transformative effects in affecting future worldwide relations. The fact that peak research universities in the USA and China are able to sustain robust cooperation, despite decoupling pressures in the geo-political setting, is encouraging for the future.

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