

Research assessment in Singaporean higher education: Changing educational accountabilities in a context of globalisation

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ABSTRACT

In this article, research assessment in Singapore's higher education sector is viewed as part of the broader trend towards changing educational accountabilities in a context of globalisation. However, while on the one hand, recent Singaporean policies resonate with a neo-liberal market ideology where accountability policies are designed to enhance international competitiveness, on the other hand Singapore's policies also reflect its own unique context. That is, Singapore's policies and practices in relation to accountability in general, and research assessment in particular, are embedded in its own historical, economic, social and cultural traditions. There is a "price to pay", however, for competing with the West, especially in terms of preserving relevant research for local community development. "Global"- "local" tensions are clearly manifest as Singapore increasingly turns towards America as a model in its drive to enhance research productivity.

[Key words: accountability, higher education, Singapore, research assessments, quality]

INTRODUCTION: ACCOUNTABILITY IN A CONTEXT OF GLOBALISATION

While the specific focus of this paper is research assessment in Singaporean higher education, it is located within a broader umbrella of an accelerating policy focus on educational accountability in a context of globalisation. In a global knowledge economy, educational institutions and systems have been restructured to render them more responsive to both government steerage and market forces, simultaneously, and accountability policies have been significant mechanisms in achieving this repositioning of education to serve the economy. Accountability is commonly understood as "answerability for performance" (Romzek, 2000: 22). Ranson defines it in terms of "a relationship of formal control between parties, one of whom is mandatorily held to account to the other for the exercise of roles and stewardship of public resources" (2003: 460). With the acceleration of globalisation, and its associated market ideology, new forms of accountability have emerged in public sector policy since the 1980s and their impact has been the subject of much commentary. For example, Romzek (2000) has noted a movement from professional to political accountability, where the former is based on a high degree of autonomy for professionals making decisions around internalised norms of practice, and the latter reflects a greater responsiveness to interest groups such as politicians, clients and the public in general. Similarly, Ranson (2003) details a transition from a prevalence of professional accountability to what he identifies as consumer, contract, performative and corporate accountabilities, and argues that this transition represents

increasingly specific regulation which has the effect of atomising the public and empowering only limited sectional interests.

Arguably, accountability has become one of the meta discourses in education policy, rising to prominence at the same time as discourses of globalisation. The concept of globalisation has been defined in a multitude of ways, most of which point to the greater interconnectedness of the world, and to the “diverse mobilities of peoples, objects, images, information and wastes” (Urry, 2000: 185). Bottery (2006) identifies many different forms of globalisation, including economic, cultural, political and environmental, but he maintains that it is economic globalisation which sets the framework; it “captures the discourses” of the other forms of globalisation. A neo-liberal, market ideology associated with globalisation has rapidly traversed national boundaries and reverberated through education sectors, and the “boom” in accountability policies across many countries sits firmly within the ideological framework. However, extreme caution is required in jumping to assumptions about global policy convergence, whether in accountability or other policy domains, without examining context-specific policies and practices in detail. Existing literature relating to the impact of globalisation is still based too much on sweeping generalisations and abstract theoretical assertions insufficiently connected to specific historical examples and empirical evidence (Yang, 2002), and therefore this research focuses on empirical data collected in specific spaces and times.

THE DESIGN OF THE STUDY

The larger study from which this paper emerged was a comparative policy analysis, focusing on both accountability and autonomy policies and practices in the higher education sectors of Singapore, Hong Kong Special Administrative Region (HKSAR) and Mainland China (an Australian Research Council study by Currie, Vidovich and Yang). After the work of Ball (1994, 2006), Taylor, Rizvi, Lingard, and Henry (1997), Vidovich (2002, 2007), and a growing number of other policy sociologists, for the purposes of this study policy is defined broadly as a process which incorporates the factors influencing the origin of the policy, the characteristics of the policy text itself, and the subsequent effects and consequences of the policy in practice. Policy is a messy process in which the original intent by central authorities is negotiated, resisted and transformed into a multitude of (often contradictory) practices. This broad approach means that policy is to be found everywhere and not just at the level of central governments, and therefore the perspectives of practitioners within individual institutions were sought. The study tracked policy processes through a trajectory from global/international levels (defined here as macro), to national levels (defined here as meso) to individual higher education institutions (defined here as the micro level).

The focus of this current paper on research assessment in Singapore highlights the growing policy attention to accountability as a mechanism designed to enhance the economic competitiveness of nation-states and institutions in the global marketplace. Data was in the form of documents at both national and institutional levels as well as interviews with participants within case study universities. Case studies are well suited to capture the complexities of issues in situ (Punch, 2005). In Singapore, the two case study universities were the National University of Singapore (NUS) and Nanyang Technology University (NTU), representing an older, more traditional university and a newer, more technological university, respectively. The participants in Singapore numbered 44, with semi-structured interviews carried out in English during 2004 and then follow-up email data collected in 2006 as new accountability policies had been released in the interim period. Within each university, a snow-balling technique was used to identify participants across each university (sciences, social sciences and professional faculties) and from a range of status positions to include senior managers, department heads, professors, lecturers and administrators.

A large majority of the Singapore participants (approximately 80%) were educated or had worked in universities outside of Singapore, and therefore they brought an international, comparative perspective. Interview quotes are used to add depth to the findings and participants are given a coded identification, but the demographic particulars are not associated with each quote in order to protect anonymity. Before embarking on a selection of empirical findings, it is important to sketch the contextual background of Singapore and the case study universities.

THE EDUCATIONAL SETTING IN SINGAPORE AND WITHIN THE CASE STUDY UNIVERSITIES

After independence from Malaysia in 1965, there was a critical need for Singapore to achieve national survival, social cohesion and economic competitiveness. It was a new country with a small geographical size and population, and with no natural resources. Therefore, it would rely on its human resources to establish itself as a key player on the world scene. Education would be vital in this quest and the government invested heavily in education, and retained tight control. Only relatively recent moves in the 2000s have seen a freeing up of centralised control of education, with incremental increases in financial and administrative autonomy to educational institutions in parallel with cautious privatisation and internationalisation across all sectors of education. The higher education sector in Singapore is relatively small. For most of Singapore's post-independence history there were only two universities, both public, and these formed the two case study institutions in this research. However, in 2000 the Singapore Management University was established, as a collaboration between the Singapore Institute of Management and the Wharton School of Business of the University of Pennsylvania (USA), and has been described as a "privately-run but publicly-funded" university (Lee & Tan, 2002). Also, Singapore has allowed selected foreign universities to establish campuses in the city-state in the 2000s, signalling another form of deregulation and enhanced competition in higher education.

The two case study universities were different types of institutions with different histories, as described on their web pages. The National University of Singapore (NUS) was established in 1905 as a medical school and then underwent a series of name changes and amalgamations and became the University of Singapore with Singapore's independence from Malaysia in 1965. It became NUS in 1980. In its centennial year, 2005, it articulated its vision to "be a globally-oriented university, in the distinguished league of the leading public universities in the world" (NUS, 2006: online). Its mission comprised three mutually reinforcing thrusts: quality education, high impact research and service to country and society. Also in 2005, NUS was ranked 22nd in the world by the *Times Higher Education Supplement* and 4th in Asia. NUS has 13 faculties with over 23,000 undergraduate and 8,000 graduate students, and there are over 2,000 faculty members, with approximately 1,000 research staff, 1,000 administrative staff and 2,500 general staff.

Nanyang Technological University (NTU) was established as a Chinese-language university called Nanyang University in 1955, and became the Nanyang Technological Institute for educating engineers in 1981 and then it was renamed NTU in 1991, when it also absorbed the National Institute of Education. In 1995 it officially became a comprehensive university, with the addition of three new schools, although it continues to be one of the largest engineering colleges in the world. It emphasises its global orientation through global alliances with 250 universities in 40 countries (such as MIT, Stanford and Cornell). NTU consists of three institutes, seven schools and two academic departments. There are approximately 18,000 undergraduate students, 8,000 graduate students and 3,300 staff, with the breakdown of staff being approximately 1,000 faculty

members, 650 research staff, 375 administrative staff, 500 laboratory support staff and 750 technical and other staff.

CHANGING ACCOUNTABILITY POLICIES IN SINGAPOREAN HIGHER EDUCATION OF THE 2000S

In Singapore the growth of centralised accountability policies accompanying greater autonomy of universities has been significant in the 2000s. The Ministry of Education (MOE) is the main organisation that administers policies; there is no buffer agency between government and universities as exists in some other countries such as HKSAR. There is also, however, a key role for economic agencies, such as the Economic Development Board and the Economic Review Committee, in defining the direction of education policy because the government wants to ensure that Singaporean education is directly linked to global competitiveness.

A number of major reviews of higher education have signalled key turning points in changing accountability mechanisms in the sector. In 2000, a University Governance and Funding Review increased operational autonomy, especially in terms of financial arrangements that included moving from annual to triennial funding, although universities still needed MOE approval for some expenditure. Further, under an act of parliament, the government established autonomous statutory boards for the two universities in this study (NUS and NTU). Staff salaries were moved from one based on a civil service pay structure to a system of performance-based and market-driven tenure (Lee & Gopinathan, 2003). Thus, university autonomy increased in selective ways.

In 2003, the inter-ministry Committee to Review the University Sector and Graduate Manpower Planning (Ng Committee) recommended new quality audits of universities every three years that would utilise more external experts (two non-academic locals and three international academics) to be part of the audit panel. The new Quality Assurance Framework for Universities (QAFU) would combine institutional self-assessment against 32 institutional goals and self-selected performance indicators across the areas of governance, management, teaching, research and service, with validation of the university's self-assessment report by an external review panel during an on-site visit every three years (Ministry of Education, 2003). Following this, a quality improvement plan would be required of each university. Thus, the QAFU moved Singapore towards a more elaborate system of accountability to external stakeholders.

The year 2005 heralded another major step in forging enhanced autonomy coupled with enhanced accountability, and the links between these policy domains were now more explicit. The report *Autonomous Universities: Towards Peaks of Excellence* (Steering Committee to Review University Autonomy, Governance and Funding, 2005) revealed that both NUS and NTU were to be corporatised as not-for-profit companies with boards of trustees similar to the governance model for the Singapore Management University (SMU), which was a partnership with an American university. One major area of enhanced autonomy would be financial administration and there would be a requirement for universities to diversify funding sources away from a near-total reliance on government to include full-fee foreign students, donations, endowments and industry contributions. However, the counterbalance to increased autonomy was enhanced accountability: "As we devolve greater autonomy to the universities, we need a clear accountability framework to provide assurance that Government funding for the universities is well utilised and properly directed towards the achievement of national objectives" (Steering

Committee to Review University Autonomy, Governance and Funding, 2005: 3). The augmented accountability framework incorporated three elements: first, a policy agreement between each university and the MOE in which the MOE provides strategic direction and sets the boundaries of university autonomy; second, a performance agreement between each university and the MOE which establishes strategic goals, desired outcomes, specific targets and key performance indicators, as well as the performance management process to achieve the targets; and third, an enhanced QAFU involving annual reports as well as five-yearly MOE-commissioned visits by external panels. In the section of the report entitled “Promoting Research Excellence”, it was asserted that the MOE’s research funding should be “performance driven to ensure value for money, and focus on research quality rather than quantity” (Ibid: 5). Further, a Research Quality Review (RQR) panel would assess the overall quality of a university’s research every five years and this would inform the allocation of funding. In addition, research resources would be concentrated in niche areas and Centres of Excellence and research scholarships would be allocated on the basis of the research outputs. Thus, research funding was to be much more targeted, and funding levers were assuming a greater importance in research assessment by the mid-2000s. Arguably, too, the locus of control over research was moving further outside of universities with the use of external audit panels.

Given the small size of Singapore’s higher education sector—two public institutions and one “hybrid” public–private university—national league tables based on research assessments would be meaningless. Instead the strategy employed by the government was to allow greater university autonomy to compete on the global stage, as indicated below:

In an increasingly competitive global university landscape, our three publicly-funded universities – NUS, NTU and SMU – will require more autonomy so that they can better respond to the opportunities and challenges they face, and hold their own against universities overseas. Increased autonomy will also enable them to differentiate themselves and chart their own strategies towards *achieving peaks of excellence*. ... Excellence flows out of greater competition. *Rather than artificially tiering the universities, we propose to grant greater autonomy* to all three publicly-funded universities, especially NUS and NTU. (Steering Committee to Review University Autonomy, Governance and Funding, 2005: 1, emphasis added)

The aspirations of each of the case study universities in Singapore to become a “world class” institution are clearly foregrounded on their web pages, along with their status position in the most recent league tables. Interestingly, in the mid-2000s it was the *Times Higher Education Supplement* ranking that was publicised on their web pages, rather than the Shanghai Jiao Tung University ranking which was growing in importance globally at that time, perhaps because the Singapore universities were ranked more highly in the former than the latter—a case of selective marketing?

But how have national and institutional accountability policies, specifically in relation to research assessment in higher education, impacted on work practices for academics and what are their views about the changes? In the section that follows, perspectives of participants in the two case study universities are reported.

VIEWS ABOUT RESEARCH ASSESSMENT FROM THE ACADEMIC HEARTLAND OF THE CASE STUDY UNIVERSITIES

The first phase of research interviews was conducted in 2004. Views about the impact of research assessment mechanisms were relatively consistent across the two case study universities, and the major differences related to the different rankings of NUS and NTU in international league tables. NUS was positioned higher in the league tables than NTU. Quotes have been selected to give “voice” to the participants in each case study university (any emphasis in bold has been added).

The majority of participants from both universities felt that new policies to enhance research productivity were relatively effective. Examples of positive views are presented first below as they were most prevalent. A majority of the participants who expressed positive views about research assessment thought that enhanced accountability through the more rigorous tenure system and annual assessments would improve productivity, quality and the university’s profile internationally. The changes were said by many to be more “objective” and to allow pressure to be brought to bear on those not keeping up their commitments. The first two quotes represent positive views from the two case study universities:

*I think it's very obvious that as a result of new policies we have become **much more research intensive** in the past ten years. If you look at the global point of view in terms of the school and the university, **the publication rate has gone right up**. At first we were just interested in the number of publications and that got people going, then we were interested in the quality of publications and now you can see that we have made notable progress in those areas. I think because of that we are where we are today; I dare say most people would know about NTU. Although I'm not saying we are excellent or at the top in every research field, but people would know about us and they know we can make an impact in certain research areas. (NTU119)*

*If you look at **the number of publications in tier one journals over the last ten years or so, the numbers are going up**. When it comes to promotion and tenure exercises, each faculty member has to prepare a research dossier, but there is certainly **a greater emphasis on high quality research**, which means that more people at an individual level are paying attention to these things. (NUS104)*

The negative views about research assessments focused on the pressure to publish in prestigious, international journals which, in turn, reduces the research interaction with the local community. Also, most of these participants challenged the emphasis on quantity over quality of publications in the early 2000s, as reflected in the next two quotes:

*If your research findings are very local, they will not be accepted by international journals ... [The research assessment mechanisms] have other repercussions like **people ignoring small presses or local audiences in favour of Western presses and adding on to the generally Eurocentric nature of the field and Western bias**. As a person in this part of the world you always have to justify why your article on [a local topic] is of interest to people in California. I know a lot of American academia is very insular and not at all interested in what's happening elsewhere. (NTU120)*

*There is research productivity and there is research quality. **I worry about the danger of bean counting without the proper instrument in place to measure quality**. What that*

could mean is that people are racking up numbers. Even with the journal tiering exercise it has an effect on research directions. But there is also the issue of regional research and how much attention do we give that kind of work that has national and regional significance, but is much less likely to be accepted by a top tier journal. (NUS119)

In 2006, given that a number of new accountability policies had been established in the Singapore higher education sector since the original interviews in 2004, a follow-up series of questions was sent by email to the original participants (approximately 50% of the original participants responded). Again, general views were relatively consistent across NUS and NTU, and almost all participants indicated that the most recent policies had not yet made a significant impact deep within universities—it was too early for them to offer detailed responses. However, most participants clearly recognised a greater government focus on research in the previous two years, including more stringent research assessment mechanisms, as recounted in the three quotes below. One respondent noted

*...ongoing improvements, with a stronger system in our annual evaluations, in research project evaluations, and in hiring, tenure and promotion decisions. I would say **our research assessment systems are now similar to those found in the best universities in the US, though specific benchmarks are not the same.** (NUS 114)*

Another respondent noted that the new research assessment framework had increased competition between universities for institutional status and for attracting quality students and staff, both locally and internationally and

*...in general, I feel that there has been a raising the bar in terms of research performance. For instance, there is **much greater talk of the need to publish in 'tier 1' journals, impact factors, citation indices to be consulted.** ... Tenure will become more difficult, but on the upside, there will be greater clarity on the conditions under which tenure will be granted. (NTU 107)*

Several participants felt that the multiple policy changes in recent times were confusing and that research assessments were still insufficiently developed, as reflected in the quote below:

*It is difficult to say if the QAFU has had a direct impact. It has stressed the importance of research and so there have been resources put into this, but at this stage there are various experiments being done and **so the situation is confusing for researchers... there are so many changes... but we think they have been poorly thought through. The instruments used to assess quality are pretty blunt at this stage. It's a step in the right direction but a very small step.** (NTU 8)*

Overall, changing accountability policies in the area of research assessment in Singaporean higher education in the 2000s have been clearly identified by participants as a response to global

influences and the perceived need to increase international competitiveness, as measured by positioning in international league tables. Both positive and negative reactions to the policies were expressed in the case study universities. Positive responses predominated and critiques of these policies were relatively restrained. In a country which is not renowned for its academic freedom and in which criticism of the government is never overt, one wonders whether the relative lack of critique (compared to China and HKSAR, for example) is more a reflection of unwillingness to criticise the government or a genuine sense that the positives associated with research assessment outweigh the negatives. Also, the fact that Singapore moved only relatively recently (mid-2000s) to enhance accountability for research productivity with the use of external quality auditing mechanisms might mean that the full impact had not yet been felt by participants by the time of the final interviews in 2006. Time may reveal changing views.

CONCLUSION

Arguably, Singapore's approach to research assessment in higher education is generally consistent with the changing modes of educational accountability in many countries in response to economic globalisation and to a climate of increased competition. However, Singapore is not simply "marching to the beat" of the neo-liberal "drum" as its policies take their own form in its own unique context. Singapore continues to be characterised as a "strong state" by international comparison, maintaining a relatively tight control over (higher) education policy. The Singapore Government has not "rolled back" but is steering national university policy in a way which might be described as "decentralised centralism" (Karlsen, 2000) or "regulated autonomy" (Whitty, 2002).

The findings from the analysis of research assessment in Singaporean higher education suggest some "food for thought" about the rising tide of changing accountability policies in education across the globe. There is no intention to generalise from these findings to other contexts but to raise some meta-level conceptual issues in relation to accountability and globalisation, as briefly highlighted in the final two subsections below.

Multiple accountabilities

Accountability policies have been a major vehicle to bring about reforms in higher education and, specifically in research, to raise productivity to successfully compete internationally. The shift observed by participants in this study towards newer more market-oriented forms of accountability in higher education is consistent with a prevailing neo-liberal ideology. In particular a transition towards accelerating market (deregulatory) and managerial (regulatory) forms of accountability – at the expense of more traditional professional and democratic forms – has been evident. However, the newer, corporate style accountability mechanisms are layered on top of longer-standing forms, and thus, new accountabilities have not replaced the older ones, but they created a complex, 'messy' and unstable web of accountability relationships. Arguably, together, all of these different forms of accountability identified above have contributed to the 'panopticism' of the university (Amit, 2000), from the work of Foucault, referring to a regime of surveillance targeted all the way down to the level of individual academics.

Specifically in the research component of higher education activity of the early 2000s, significant financial rewards for both institutions and individuals are increasingly attached to specific measures of research performance, and performance-related pay has been a significant driver to rapidly embed a culture of performativity within universities. However, there is evidence of criticisms from participants in Singapore (and also HKSAR and China in the larger study of the

Asian arena) of these research productivity measures used by governments. In particular, participants were concerned about the counting of quantity over quality of publications; the narrowing of research to short term instrumental foci; and the priority afforded to publications in prestigious, English-language, “Western” journals at the expense of localised research.

As an alternative to the predominance of corporate style managerial and market accountabilities which Ranson (2003) argues have a more punitive connotation, he has proposed a democratic accountability where an inclusive democratic community actively participates in the deliberation over their differences to form a judgement about how to proceed. As Bottery (2006: 108) asserts, accountability regimes should not be “simply ‘done’ to them [teachers/academics], but are a product of, and contribute to, the ecology within which they practice”. Ranson (2003) argues that neo-liberal accountabilities have actually displaced the public it was meant to serve and that trust can only be restored through such a modified framework for public accountability. Olssen, Codd and O’Neill (2004) also pick up on the concept of trust which they, too, maintain has been eroded with the neo-liberal accountability practices of monitoring, reporting, recording and surveillance. As with many other writers in the field, they distinguish externally-based, low-trust accountability through line management from internally-based high-trust accountability in the form of professional responsibility, and they argue for a rejuvenation of the latter to foster democratic societies.

“Global”–“local” policy tensions

While there is evidence in the research literature of a significant level of convergence in the general nature of accountability policies and practices across higher education sectors in different national contexts, there is also evidence of policy divergence in different localised settings. The larger study of Singapore, Mainland China and HKSAR higher education sectors is illustrative. Similarly, Green (1999) found greater convergence of policy discourses and objectives than specific structures and processes across different national contexts in East Asia and Europe and, of relevance to the current research, he also noted that in higher education, policy convergence was particularly strong in the areas of quality control and performance evaluation—two major arms of accountability policy.

Policy borrowing across different national contexts has been rampant. In the case of Singaporean higher education, there appears to be a transition from the United Kingdom being the primary source for policy borrowing to increasingly adopting the United States as the significant benchmark. Models from the United States have been actively targeted by the policy elite in Singapore as the country engages with the competitive global knowledge economy. A number of participants expressed concerns that the frequent calling to achieve “world class” standards in Singapore’s higher education policy discourses appears to be related to a more limited ‘gold standard’ based on elite American universities, rather than many different international models (see also Marginson, 2003). That is not to say there has necessarily been direct transfer of specific policy details from the United States to Singapore; but rather it has been more of an ideological shift to achieve closer alignment with higher education policy directions in the United States. In Singaporean higher education, arguably it is the market ideology, with competition as its centrepiece, which has been actively drawn from the United States, and which is increasingly becoming a primary *modus operandus* of the sector. Although it is beyond the scope of this paper to make international comparisons between specific structures and processes in Singapore and the United States, it would make for an interesting extension of the current research.

Competition and hierarchy are proving to be powerful “bedfellows” in driving global policy agendas. Clearly defined hierarchies, especially in the form of league tables—both national and international—are now a significant feature of higher education landscapes. However, global

competition is not on “a level playing field”, and participants across the case study sites in the larger research project have noted the financial and language impediments to even the best Asian universities competing successfully on a global scale. Further, participants were concerned about the cost of engaging in these competitions in terms of preserving “local” research, language and culture. Thus, global-local tensions were felt acutely by participants, and many believed that new accountability policies, with their inherent implications of competition and hierarchy, were exacerbating those tensions.

This paper closes by emphasising the need for more active and critical policy learning, and less uncritical policy borrowing, in navigating global/international (macro), national (meso) and local (micro) level policy dynamics. In the interests of preserving healthy diversity and equity, specific accountability policies ought to be organically grounded in specific places and times to enhance “authentic” quality in research (and also learning-teaching) in higher education.

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