GLOBAL MODELS FOR THE NATIONAL RESEARCH UNIVERSITY: ADOPTION & ADAPTATION IN INDONESIA AND MALAYSIA

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Summary

This paper analyses the way in which global university models are adopted in research universities in Indonesia and Malaysia. It first provides the global context in which these models have evolved and the processes through which they spread. How these global models interact with local policies and institutions is the topic of the empirical part of the paper. Even though the global discourse is apparent and similar in different countries, local adoption is path dependent and embedded in wider structures. This might result in dissonance and discrepancy in the implementation phase, an outcome which is inevitable, but not necessarily harmful.

KEY WORDS: GLOBALISATION; KNOWLEDGE ECONOMY; GLOBAL MODELS; DIFFUSION; INDONESIA; MALAYSIA
INTRODUCTION

The notion that knowledge has become a production factor that is fundamental to economic prosperity and a resource that is key to social advancement is an idea that has diffused throughout the world and has stuck with many national and organisational leaders and policy makers. There is a near universal acceptance of the idea that knowledge is central to contemporary societies and economies and that universities therefore need to ‘open up’ to them, and also a near universal acceptance of the models that accompany this idea. In the past decade or so this has led to the emergence of ‘global university models’ which are aspired by governmental as well as university leaders. University templates and organisational practices diffuse across the world with accelerating speed, and although the changes often appear to be similar, they are constituted in each place by an amalgam of global, national and local factors in complex ways (Marginson & Sawir 2005). This resonates with Mok’s (2003: 216) recommendation to contextually analyse the interaction between a range of critical shaping factors in the local context and the impetus for change driven by global trends. This paper follows this recommendation by investigating the origin and spread of global models and exposing the local factors that impact upon the implementation of the models.

For the traditional research university the discourse of the knowledge based economy and knowledge society has provided new models for both teaching and research and also for the governance of institutions. National research universities now find themselves in the middle of a web of internal and external stakeholders, old and new customers, private and public partners, national and foreign collaborators and competitors. Universities as central sites of knowledge production and dissemination therefore play a pivotal role in the knowledge economy and knowledge society. Although it is difficult to speak about ‘the’ university, ‘the national research university’ has appeared as a near universal phenomenon. Nearly every country in the world has developed its own layer of comprehensive institutions that they consider as ‘flagship’ institutions. In addition, many countries have another tier which can be considered equally prestigious and of equal national importance. These are the universities or colleges that have a more technological or scientific focus and are usually of a younger age. It are these national research universities, both comprehensive and technological, that will be considered in this paper. Their national importance in the current phase of globalisation exemplifies the ambiguous character of the environments in which they operate, facing both the global and local environment simultaneously.

In this paper, I will analyse the way in which global university models are adopted in a comprehensive and a technological ‘flagship’ university in two countries: Indonesia (Universitas Gadjah Mada, UGM; Institut Teknologi Bandung, ITB) and Malaysia (Universiti Malaya, UM; Universiti Sains Malaysia, USM). Before analysing the developments in these countries, I will first provide the global economic and societal background in which these models have evolved and identify the mechanisms through which they diffuse across borders. In the empirical section I will analyse the way in which these global models are implemented and how they interact with local and national policies and institutions.
HOW AN IDEA EMERGED AND MODELS APPEARED

The idea of the knowledge society and knowledge based economy has spread globally and is now prominent in the policy discourses of many countries. The idea has turned into a paradigm that frames economic, social, cultural and educational policies. The meaning of the concept of the knowledge society and knowledge economy has gradually evolved since it was first used in the 1960s. While Daniel Bell (1973) saw the knowledge society as a post-industrial society where the state and universities played a vital role through centralised steering, the contemporary notion of the knowledge society is more linked with openness, flexibility and fluidity, seeing the state as a facilitator, not as a central planner. The concepts of the knowledge economy and knowledge society revolve around the idea that knowledge has become a central driver for economic, social and cultural change and can be summarised by the following features: (i) knowledge is becoming an increasingly important production factor and a high proportion of the labour force is employed in the knowledge industry; (ii) overall, members of a knowledge society have a relatively high level of education and since there is an increase in the capacity and availability of information, this information plays an important role in the decision making processes in such a society; (iii) and finally, the context in which knowledge is produced and utilised is polycentric, dispersed over multiple centres of expertise and characterised by a culture of innovative knowledge production and an open knowledge culture.

The knowledge economy and society discourse has also affected our view on the role of the university. It has created a wide consensus on new university models, where the main thesis has become that the university needs to open up and incorporate the social and economic needs into its own operations. The concept of the ivory tower gradually became substituted by the concept of a fuzzy, blurry arena with a plurality of actors and interests. Or rather, that is the prescription. Apart from having led to a greater diversity in universities within many countries, it has also led to a transformation of the traditional research university. This new university model is now described and prescribed under different labels, such as the innovative university (Clark 1996), the entrepreneurial university (Etzkowitz 1996; Clark 1998), the enterprise university (Marginson & Considine 2000), the multiversity (Kerr 1963), the service university (Buchbinder 1993, Tjeldvoll 1997, Cummings 1998), the stakeholder university (Jongbloed & Goedegebuure 2001), the responsive university (Tierney 1998), etc.

The global model of the university is a mishmash of these perspectives on the role of the university and can best be described by the terms openness, relevance and responsiveness. Open to outside influences and new demands; relevant for the economy and the wider society and responsive to economic and societal needs. All of the labels above emphasise different characteristics and manifestations of this new openness. They are not identical, but they are overlapping and share common characteristics.

The contemporary national research university is a culmination of these new models, where universities need to become more innovative and entrepreneurial, act more like an enterprise, have to incorporate the interests of a wide range of stakeholders, and need to be responsive to them. In short, it will become more oriented towards serving society and economy. While independent production and dissemination of scientific knowledge was the trademark of the ivory tower model of a research university (Tjeldvoll 1998), the production and dissemination of scientific and professional knowledge, as a service to society and economy, is the trademark of the service model of the research university. This does not mean a substitution where one model is traded in fully for the other, but it illustrates the multiplicity of tasks and responsibilities of the service oriented research university. One might argue that universities, and especially public ones, have always existed
to serve national economic and social interests and this is true to a large extent. With the emergence of the knowledge society and economy discourse however, these services are becoming the *raisons d’être* of the university, partly displacing its function as an institution for personal academic and intellectual enrichment. The knowledge economy and society discourse has provided a legitimation for higher education and research to be a public issue because of the utilitarian value of higher education in developing a sustainable national economy. The model of the service oriented research university impacts the core functions of the university – education and research – and the governance and management of universities.

For the education mission this means that education becomes predominantly a way of providing the economy and society with people that have the right knowledge and the right skills. This does not necessarily mean that higher education becomes more vocational, but that the skills and knowledge need to have the potential to provide an added value to society and economy. On a macro level, this results in policies to increase the number of employable graduates and the relevance of their skills. For existing research universities, opening up to new groups is particularly relevant. There are various models that universities adopt in order to respond to this demand. An important and globalised model for addressing these groups is continuing education. This is generally a form of education to make the teaching expertise available to the wider public through non degree courses and professional programs. Another education-related issue that the service oriented research university needs to focus on is the relevance of the knowledge and skills of their graduates. Graduates need to be trained according to the needs of society and they need to be employable. This might lead to attention for new skills such as communication skills and presentation skills or the promotion of entrepreneurialism. It can lead to changes in pedagogies like problem based learning or student centred learning. Instruments to signal the shortcomings in the graduates competencies are based on the feedback from the constituents or stakeholders that the service oriented research university serves, for instance through the inclusion of external stakeholders’ opinions in the curriculum, formalising relations with alumni or by tracing the career paths of the graduates. In the service oriented research university, the curriculum and graduate competencies become more determined by external criteria instead of being a product of internal academic dialogue.

The creation of new knowledge and the transfer of this knowledge is a key issue in the new model. In the transition towards a knowledge economy and knowledge society, universities need to produce more knowledge, relevant knowledge and become responsible for the transfer of that knowledge to those parties that need it. The transformation in knowledge production and transfer has been approached from different viewpoints and received different labels. Most widespread is undoubtedly the Mode 2 thesis by Gibbons and his colleagues (Gibbons, et al. 1994; Nowotny et al. 2001). Mode 2 knowledge is produced in the context of application characterized by a problem-solving approach to specific issues, as opposed to a context governed largely by the interests of an academic community. For a university the shift implies a profound change in the way things are done. One can expect new research domains to arise. These new domains rely on a multiplicity of disciplines for their fundamental knowledge and focus on the most promising fields of application, like information technology, biomedical research or nanotechnology. This type of research is not equivalent to applied research, but takes the form of strategic research: research carried out with the expectation that it will produce a broad base of knowledge likely to form the background to the solution of recognized current or future practical problems (Irvine and Martin 1984: 4; cited in Rip 2004). An important organisational indicator of the increasing importance of strategic research is the spread of centres of research excellence and
relevance (Rip 2004: 17; Beerkens, forthcoming). The institutional consequences (and drivers) of the shift in knowledge production are illustrated by models such as the triple helix of university-industry-government relations (Etzkowitz and Leydesdorff 1997) and national innovation systems (Lundvall 1992; Nelson 1993). The premise here is that the dynamic evolution of relationships among the university, industry, and government can help to generate economic growth and social transformation. To encourage these relationships, knowledge needs to be transferred back and forth, from and to these institutions. In terms of cooperation, this has led to an increased call upon universities to establish linkages with industry. These linkages form channels through which knowledge can be transferred and feedback can be provided. These linkages can be institutionalised in the form of contractual agreements (R&D joint ventures and the like), licensing agreements, or more loosely structured arrangements like the establishment of science parks near universities. In other cases, universities can transfer their knowledge to the market by engaging in commercial ventures themselves, like is the case in the creation of university spin-offs and the commercialisation of knowledge products.

Global governance and management models that fit the functions of the service oriented research university can best be summarised by terms like ‘new public management’ (NPM) or ‘new managerialism’ (Hood 1991; Osborne& Gaebler 1992; Lane 2000). The most important elements for the interface between university, government and industry revolve around three core issues: efficiency, responsiveness and accountability. The prescriptions for the service oriented research university are to do more with less, to be responsive to societal and economic needs and to be accountable to the public and other stakeholders. Doing more with less translates into efficient use of public resources and the tapping of private resources. Since universities serve society, they need to utilise their financial resources in such a way that society receives maximum benefits. To do this, universities need to become autonomous, professionally run organisations. This leads to a professionalization of the governance of universities and to what Clark (1998) terms the ‘strengthened steering core’ of universities. Managerial responsibilities are taken away from the academic community on the one hand, and the national governments on the other, and are transferred to the central level managers of the university. This obviously cannot be done without a sufficient level of institutional autonomy. In return for the public and private money that the service oriented research university receives, it needs to be responsive to the demands of the external stakeholders. In its operations it will need to incorporate the demands and desires of its ‘clients’, often leading to the organisational incorporation of external stakeholders and their interests into existing governance structures. Like countries in other parts of the globe, countries in East Asia have also responded to globalisation by adopting these new governance models in higher education (Mok 2007).

In summary, one can conclude that the (prescribed) service oriented research university is under pressure to produce more and more relevant graduates; produce more knowledge in the context of application and at the same time oversee the process of knowledge transfer; and put in place the mechanisms that allows it to perform efficiently while being responsive to social and economic needs and accountable to its external stakeholders. All with the ultimate objective to become more open, more relevant and more responsive.
THE NATIONAL RESEARCH UNIVERSITY IN A GLOBAL ENVIRONMENT

The discourses on these new university models have spread throughout the world. Discourses however spread easily and are not necessarily accompanied by matching policies, practices and results (Pollitt 2002). Neither should we see the adoption of these models as the adoption of a wholesale package of policies and reforms. The reforms towards openness, relevance and responsiveness is a collection of various models from which governments pick and choose which to adopt, which not to adopt and which to adapt. Even though the models above have diffused throughout the world and created a convergence in the discourse, the ultimate realisation of these models varies considerably in different universities and different countries. This is related to the ambiguous character of the contemporary environments in which national research universities operate. Universities, and especially a country’s flagship universities, have a clear national function in advancing social progress and economic advancement. They provide leaders for business, for administrative and political functions and for civil society as a whole. In the global knowledge economy, universities become one of the pillars on which performance of nation states is based. However, even though most countries in the world have become part of a global system, they deal with local problems and need to respond to local needs, and so do their universities.

The national flagship universities are becoming part of a global institutional environment, or a global organisational field. The traditional view is that organisations are embedded in organisational fields, which are roughly comparable to the boundaries of industries, professions or national societies (Scott et al. 2000). These fields are socially constructed by the actors’ cognitive view of the environment (DiMaggio 1991) and includes those organisations that, in the aggregate, constitute a recognized area of institutional life (DiMaggio and Powell 1983: 148). Organisational fields identify communities of organizations that participate in the same meaning systems and are defined by similar symbolic processes (Scott 1994: 71). Practices and models travel from one organisation to another and this follows a process of institutionalisation driven by competitive or institutional pressures (see Guler et al. 2002: 207). Most work in this field has focused on convergence and isomorphism at the country level or the level of the organisational field or industry, but few have considered the institutional factors that shape the cross-national diffusion of practices. Scholars looking at cross-national diffusion of organisational practices (Guillén 2001; Guler et al., 2002; Polillo and Guillén 2005; Henisz, et al. 2005) and institutionalists employing a world society approach (Meyer et al. 1997; Boli and Thomas 1999) are exceptions to this. They see institutions (brick and mortar institutions as well as norms, rationalised myths and cognitive templates) as structures that are not necessarily confined to national borders. This is also true for the national research university and therefore we can no longer identify organisational fields solely within national boundaries. This implies that organisations increasingly are subjected to and shaped by international regulations, international norms and international principles. Those organizations that constitute a recognized area of institutional life identify themselves with communities of organizations that participate in the same meaning systems and are defined by similar symbolic processes, communities which – in theory – do not have to be national in scope. University models, such as the service oriented research university, travel throughout these transnational organisational fields. As a result, universities will find themselves in a situation where they are affiliated with multiple overlapping fields, serving the nation while being part of an emerging global field of universities.
The transnationalisation of organisational fields, alongside the persistence of national organisational environments brings national research universities in an ambiguous situation. They need to deal with national pressures to become a national service oriented research university, subservient to national needs, while at the same time they experience isomorphic pressures from outside to adopt the global model of the service oriented research university. The global model for the service oriented research university is either a contextualised model, frequently developed in the American context, the UK context, the Anglo-American context, maybe the ‘western’ context, but often they have become de-contextualised, becoming a one-size-fits-all solution applicable everywhere, at least in theory. In a world that is only partially globalised this will inevitably lead to some inconsistency between the global models and the needs, cultures, structures and policies which are shaped by the local context. Models however are not just adopted within a local context, but the process of adoption will also be shaped by that local context. Decision makers and professionals will not always adopt models in the form of a wholesome transplantation but will either learn or pick what seems right to them or they will adapt the global models to local circumstances (or local agendas, see Mok 2003). Most likely, it will be a mixture of these actions.

GLOBAL MODELS AND THE RESEARCH UNIVERSITY IN INDONESIA & MALAYSIA

In their discourse and formal policies, Indonesia and Malaysia have both adopted the paradigm of the knowledge economy and the accompanying model of the service oriented research university. At the same time, the trajectories of reform were following very different paths in these countries, with very different results. Models diffuse but are likely to be adapted or reinvented in the adoption process. In this section, I analyse the adoption and implementation of such models\(^1\). In terms of education, emphasis is given to lifelong learning and continuing education programmes and to the relevance of traditional programmes. For research, I focus on the linkages with the outside world and the shift to strategic knowledge production. For governance, the focus is especially on the idea of autonomy for efficiency and responsiveness.

GLOBAL MODELS AND THE INDONESIAN RESEARCH UNIVERSITY

Increasing the knowledge base of the Indonesian population has taken place mainly through an expansion, diversification and privatisation of the system. In the Suharto era, public institutions were established all over the archipelago, with at least one institution per province. In the past decades, expansion has mainly occurred through a mushrooming of private institutions, with a large diversity in size and quality. In ITB and UGM, the increase in the skill base of the population takes place through their traditional education activities and through professional programmes and community linkages. The demand for professional programmes is largely confined to programmes in the administrative and management fields. ITB has recently established a Continuing Education Programme with the ‘mission to empower society’. Activities in its initial stage however, are mainly focused on the academic staff with courses on writing skills and research management. ITB also has been involved in professional management education since 1990 through their Master of Management with an emphasis on technology. This used to be a rather peripheral activity in the university but since the establishment of a business school in 2003, management education has taken a more central place in the institution. The oldest management programme in Indonesia is offered by UGM. The Magister Manajemen (MM) was the first MBA like programme in the country. It caters for traditional students, but increasingly also provides professional education and executive education. At the central level at UGM there is no
institutionalised continuing education programme. Continuing education and training occurs through centres like the Small and Medium Enterprises and Entrepreneurship Development Centre (SMEDC), an interdisciplinary centre, and the Management Research & Development Centre (PPM) at the faculty of economics and business. Both of these centres are active in consultancy, but also provide short courses and training workshops, mainly on demand. The most important linkage with the community is the so-called KKN programme (Kuliah Kerja Nyata\textsuperscript{2}), where students directly apply their knowledge to the benefit of the community. Overall, continuing education in Indonesia is mainly confined to supporting business and government in terms of administrative and management knowledge. Since the large corporations and the administration are very much concentrated in Jakarta, this has led to a partial move of the programmes (especially MBA’s) to the Jakarta region, where competition in this field is fierce. Activities like the KKN programme and some of SMEDC’s activities are an exception and focus more on the rural communities and small businesses. Although the KKN programme remains a priority for UGM, it is under pressure because of the high costs and lack of direct financial returns. In the science fields there are not many opportunities to provide non traditional programmes.

Both Indonesian universities have taken measures to increase the relevance of their education. Increasingly, faculties and departments try to get feedback from employers and alumni in order to assess their curricula. Tracer studies have been conducted to trace the careers of graduates, in some cases at the department level, but also at the institutional level. In addition, informal links are maintained with employers and graduates. In several cases, the opportunity for feedback will be more formalised, for instance through an alumni foundation (e.g. UGM, Science) or an advisory board (e.g. UGM, MM). A frequently heard complaint through these channels is the lack of attention for so-called ‘soft skills’ in the curricula. It is often recognised that too much attention is given to theoretical knowledge and graduates lack communication skills, teamwork skills, leadership skills, IT skills and foreign language skills. In social sciences, and especially management, faculties are increasingly looking at foreign institutions in order to increase the relevance of their curricula. Business schools have adopted a case study approach in their MBA programmes, often with all or a majority of the cases coming from abroad, especially the United States. Indonesian cases are being designed but this has proven to be a costly activity. In ITB’s business school, adoption of foreign course elements was most apparent. Considering that most of the staff for the new school were drawn from other faculties and were relatively new to the discipline of management, much internet research was conducted in the design process of the curriculum. In the end this led to the implementation of a course template designed by a US university. Another way in which departments and schools try to increase the relevance of their programmes is through professional accreditation. ITB is now exploring opportunities for international accreditation for their science and engineering programmes. The Faculty of economics is currently involved in the process of becoming accredited by the International Association to Advance Collegiate Schools of Business (AACSB). The demand for English speaking graduates (and increasingly also of other languages) in the world of business has led to a spread in the use of English as a language of instruction. This spread however is mainly limited to management programmes. The official language of instruction remains Bahasa Indonesia. Changing this is not an issue, only if the profession requires it – like in management programmes – or when there is a substantial number of international students.
Although ITB and UGM – together with Universitas Indonesia and the Agricultural University in Bogor – are the major research universities in the country, teaching has long had priority over research. One should be aware of this in assessing a shift from mode 1 to mode 2 learning. In many cases where this shift occurred, there has been a history of ‘traditional’ mode 1 knowledge production which is now shifting towards production in the context of application. Because of the high and increasing demand for higher education, the lack of research funding, and the low salaries of academic staff, most of the time was spent on teaching and in the time that remained, academics frequently took up other jobs (consultancies, teaching in private institutions) in order to top up their salaries. A history of mode 1 production of knowledge was therefore lacking to a large extent. Before the universities received the BHMN\textsuperscript{3} or autonomy status, the availability of funding was very much dependent on the personal (political) networks of academics or their ties with foreign funding agencies (Nugroho 2005). Linkages outside of the university, academically as well as economical and political linkages, have thus been part of Indonesian academia for a long time. What the BHMN status has managed to do was to formalise and institutionalise these – formerly informal – linkages. Considering that governmental and institutional funding sources are very limited, much of the research activities are dependent on the entrepreneurial capabilities of individual academics and their links with industrial or international funding sources. Several academics opt for closer links with industry and the commercialisation of knowledge in order to pursue their research programmes. ITB’s Biotechnology Research Centre for instance tries to align its research with the needs of industry. The operations in such centres are very much dependent on their leaders. This centre is led by what could be aptly called an academic entrepreneur, relying on his international and industrial networks, which gives him independence vis-à-vis institutional and governmental leaders.

The need for more relevant research has led to the establishment of a wide variety of research centres. These centres are not based in the faculties but come directly under the authority of the central level of the university. The researchers in these centres however all come from the relevant faculties. These centres are based on the research priorities set by the universities. In general, these very much resemble the fields that are ‘popular’ globally: biotechnology, biomedicine, materials science and nanotechnology, energy research, information technology, etc. In many cases however, the specialisations within these ‘new disciplines’ are very much geared towards national or local circumstances. In Indonesia this translates for instance to the use of jatropha oil from castor plants as an alternative for fossil fuels (ITB) or the use of indigenous plants for medicinal applications (UGM). The transfer of knowledge from university to industry and government follows mainly two paths. On the one hand there are institutional initiatives; on the other are the academic entrepreneurs. Especially in ITB, there emerged a whole spectrum of formal initiatives to ‘get the knowledge out there’. A holding company is being set up by an investment banker; an incubator centre has been in operation since 2003; an endowment fund has been set up; at the faculty level, a centre for innovation and entrepreneurship has been established in 2004. But at the same time a whole range of other activities are developed by individual academic entrepreneurs. These are the academics that have the personal industrial and international networks and are involved in fields that are of strategic importance for industries or government.

In terms of contributing to regional economic development the opportunities for ITB are more apparent than for UGM. This is partly due to the science and technology focus of ITB but is also very much related to location. Yogyakarta is located in Central Java which is seen as a traditional region, proud of its traditional crafts and
cultural landmarks. ITB in Bandung is relatively close to Jakarta, the heart of (international) business and national politics. In 1996, the idea of the Bandung High Tech Valley (BHTV) was first coined (based on a report of consultancy firm McKinsey) and it was supposed to become Indonesia's own Silicon Valley. Because of the monetary and political crises, the idea has not developed into a real integrated innovation system. Yet, the idea is still alive, even though a real strategy of the regional or national governments is lacking and is basically limited to improving physical infrastructure. In addition to the vicinity to Jakarta, Bandung and the Jakarta Bandung corridor have the benefit of the presence of technology intensive research institutes and firms. This presence is believed to form the basis of an organic development of the BHTV, although those involved see government support as necessary, at least in the early stages. In general, Indonesian research policy and management does follow the objectives of openness, relevance and commercialisation. Through historical reasons and the lack of funding, this has not always materialised. On the other hand, especially in ITB, pockets of individual entrepreneurship have popped up all over the campus and beyond. This however has led fundamental research and research in non strategic areas in a state of serious underfunding and underdevelopment.

The NPM-like objectives of autonomy, responsiveness and accountability have gained a foothold in Southeast Asian public administration, albeit in different manners (Turner 2002; Common 2001). In Indonesia, the call for more efficient government and for accountability and the eradication of corruption, became especially important after the Asian crisis of 1997 and the resulting political changes after the crisis. Unlike Malaysia, Indonesia was prepared to follow the strict monetary directions of the IMF in the aftermath of the crisis. The introduction of NPM elements in higher education however preceded the 1997 monetary crisis or ‘Krismon’. The ‘New Paradigm for Higher Education’ introduced in 1996 formed the basis for the reforms. This new paradigm for higher education management was based on five pillars, clearly resonating the NPM discourse: quality, autonomy, accountability, accreditation, and evaluation. The monetary and political crises functioned as an accelerator of the proposed policy changes.

Efficient management of higher education has become imperative, for both the Indonesian universities and the Indonesian national government. Government funding of higher education is low, especially compared to its neighbours Malaysia and Singapore. The pre-1996 system was managed inefficiently and ineffectively and the solution was sought in institutional autonomy. By providing the BHMN status, universities became corporate organisations with social and economic missions, but managed like a business. Organisationally, this translates into a strengthened steering core within the institutions, at least in the formal sense. Much of the authority which was previously in the hands of government officials has now been given to the university. This has led to a growth in centres at the central level, centres involved in administrative issues as well as those involved in linkages with the outside world. The rectors – the chief executives – are chosen in a semi democratic manner by the Majelis Wali Amanat (MWA, the Board of Trustees). While effectively the universities used to be government agencies, in a period of only six years they have turned into universities that now only receive 25 to 30 % of their income from the government. The resulting managerialism has led to resentment from the academic core of the universities. At the central level, they are still represented through the academic senate, but they have lost influence in central decision making. However, this does not necessarily mean that they have lost influence altogether. As was observed before, those with linkages to national and international resources become rather independent from the newly strengthened institutional
governance layer. The objective of responsiveness is primarily pursued by including external stakeholders in university governance bodies like the MWA and other university operations. Through its budgetary powers and through regular meetings, the MWA also has a significant power in the strategic planning process. Although not nationally regulated, the universities have also included external stakeholders’ interests in their quality assurance mechanisms. Professional associations play a major role in setting the standards for official professions like lawyers and accountants. In Indonesia a cautious shift can be observed to including other professional standards and to the standard-setting by international professional associations, for instance through professional accreditation.

GLOBAL EDUCATION MODELS AND THE MALAYSIAN RESEARCH UNIVERSITY

Malaysia’s economic growth in the 1980s and 1990s has led to a high demand for higher education. The government’s main response to this has been the expansion of the system by allowing the establishment of private and international providers. For the major public universities in Malaysia, opportunities for quantitative expansion for the traditional student population were limited and therefore they targeted new groups like professionals and international students. Both the Universiti Malaya (UM) and the Universiti Sains Malaysia (USM) have undertaken initiatives to target professionals. UM, being located in Kuala Lumpur, has set up specific institutions with the mission to provide training for the private sector (University of Malaya Centre for Continuing Education, UMCCED) and the public sector (International Institute of Public Policy and Management; INPUMA). Both centres benefit from the vicinity to the economic and political power of the nation. UMCCED, although catering for the private sector, is involved in many training programmes with government owned corporations like Post Malaysia or the Malaysian Airport Holding. INPUMA was established through an initiative of then Prime Minister Mahathir Mohamad who wanted it to be a Malaysian version of Harvard’s Kennedy School of Government. The centre is offering a Masters in Public Management, aiming primarily at the Malaysian civil servants. In recent years, it has become more involved in international programmes, primarily in the newer members of ASEAN (the so-called CLMV countries: Cambodia, Laos, Myanmar and Vietnam) and countries in Africa (Maldives, Sudan), becoming an important diffuser of policy ideas and administrative models. In USM, the main unit responsible for the continuing education activities is USAINS, the holding company of USM. In the field of professional programmes, USAINS benefitted from the science and technology focus on the one hand, and the presence of some high technology companies in the region on the other. Several agreements were set up with companies like Agilent and Intel. For Agilent, USAINS developed a tailor made MSC degree course, but due to internal reasons this was not continued, even though it was successful. Despite USM’s beneficial location (in Penang, where much of the country’s high technology industries are located), the targeting of new groups encounters many obstacles. Some of them have to do with the academic attitude towards the provision of professional, tailor made courses. Other explanations point to the close involvement of politics in Malaysia and the importance and sensitivity of ethnic issues in Malaysian politics.

The relevance of higher education has become a major issue in Malaysia, especially because of high graduate unemployment. Graduate unemployment has increased in the past years and a lack of job experience, poor command of the English language and a lack of communication skills, and mismatch between skills and jobs available were the main reasons for this growth (Kanapathy 2006: 9). Both at the university level and the national level measures have been taken in order to narrow the gap and increase the relevance of the higher
education programmes. In national policies the language issue has been a sensitive one in this respect. The official language of instruction is Malay. In the business sector however, English is increasingly becoming the preferred language of communication. As a result, the government’s language policies are becoming more flexible. Math and science courses in secondary schools are now being taught in English, most postgraduate programmes use English and in the undergraduate programmes, schools and faculties tend to ‘bend’ the language regulations, without real opposition from the university or the national government. In order to increase the relevance of the education programmes, universities and faculties increasingly use feedback from external stakeholders and international peers. As was the case in Indonesia, the issue of ‘soft skills’ was frequently brought forward in Malaysia. UM established a centre to deal with the skills gap (Centre for Industrial Training and Relations, CITRA) organising seminars and facilitating internships for students. Although the incorporation of views from employers has been taken up enthusiastically by faculties and schools, employers criticise universities without being exactly sure themselves what precise skills they are looking for.

Quantitative and qualitative increase of research and the commercialisation of their results are probably no more stressed than in Malaysia’s policies. In the ninth Malaysia Plan for 2006-2010, the four main public universities UM, USM, UKM (Universiti Kebangsaan Malaysia) and UPM (Universiti Putra Malaysia) have officially been designated ‘Research University’, a label that comes with extra financial resources for research, development and commercialisation activities. The research priorities in the ninth Malaysia Plan, point to a shift towards a more targeted research policy. More targeted in terms of institutions and in terms of fields of research. One other measure to increase the research performance of the Malaysian universities is by attracting Malaysian scientists working abroad. Several programmes were initiated, like the Returning Scientists Programme (1995), the Returning Experts Programme (2001) and the Brain Gain Malaysia Programme launched in 2006. The lack of a research culture, the deficient research facilities and the moderate research funding were important reasons for the only moderate success of these programmes. In addition, there seem to be concerns about the extent of academic freedom, especially in the social sciences (Sato 2007). Despite the corporatisation policy of 1997, the quantity as well as the content of research in Malaysia is determined very much by government policies. Malaysia has a clear vision about where it wants to go economically, a vision set out by the Vision 2020 and the Third Outline Perspective Plan (OPP3) for 2001–2010. While Vision 2020 is a general framework for lifting Malaysia up to the level of developed countries in the year 2020, the OPP3 specifies this vision by establishing the goal of developing a knowledge-based economy to advance national economic growth and competitiveness (Shapira et al. 2006). For the near future the objectives are further operationalised in the 9MP, in particular in three funds: the Science Fund, the Techno Fund and the Inno Fund. University research operates in these frameworks through the priorities set by the Ministry of Science Technology and Innovation (MOSTI).

In the Malaysian universities this has led to a strong orientation on application and commercialisation, a development which is illustrated by an increasing emphasis on patents and the high visibility of performance at innovation and science fairs, in which the scientists have become successful. From the academic point of view however, questions are being asked about the value of these prizes. The prioritization of economic commercialization has also led to a wide range of interdisciplinary research centers. Many of them, although located within and managed by universities, have been initiated by the government, often on the basis of economic and political needs. Parallel to these centers, universities have set up research centers based on
their internal strengths. In the research centres one can observe a similar preoccupation with end results, measured in patents, products and prizes. A pioneering centre in this respect is INFOMMM, a USM centre involved in molecular medicine. The centre is active in research, product development and commercialization, a trajectory corresponding to the Science, Techno and Inno Funds of the 9MP. Although the centre is an example of research in global popular fields (i.e. Biomedicine and Biotech), there has been a conscious consideration about what was important and what was possible in the Malaysian context, focusing on diseases that occur in Malaysia and Southeast Asia. The entrepreneurial success of the centre is partly based on individual leadership, but in this case the USM Holding Company USAINS played an important role, especially in relation to expertise on commercialization, patenting and intellectual property rights management.

The role of government in the relation between the university and regional development is also very apparent. This takes the form of grand projects like the Multimedia Super Corridor and the Bio Valley (and its humbler successor Bio Nexus, partly modelled after Singapore’s successful Biopolis). These projects have had some success but clearly are lagging behind expectations. The Bio Valley and Bio Nexus concepts suffer from a lack of skilled human resources, partly due to a brain drain from the ethnic Chinese and Indians which can be traced back to Malaysia’s ethnic policies (Cyranoski 2005). The MSC has made reasonable progress, but what is lacking here are the intangible factors, in particular the attitude and culture of the society and the lack of an entrepreneurial spirit (Ramasamy 2004). The obstacles for a successful development of the MSC and Bio Nexus seem to be illustrative for the wider research developments in Malaysia and in the two universities under investigation. This does not mean that Malaysia has not been successful in its economic development strategy. Much more than other countries in the region, Malaysia has been able to develop an economy in which knowledge plays an increasingly pivotal role. But as this role increases, also the limits of governmental steering become apparent. The corporatisation of universities has not forced universities to become entrepreneurial, but it has forced them to follow governmental strategies. The relatively strong government funding of research (compared with other Southeast Asian countries, excluding Singapore) has given the universities a strong basis and a reasonably strong research infrastructure but has failed to lead to a widespread academic culture and a culture of entrepreneurship and innovation.

As was the case in Indonesia, Malaysia is moving from a typical Asian style of centralised government to a more decentralised style. In Malaysia this often led to a call for a more business-like government, illustrated by the ‘Malaysia Incorporated’ concept which was already introduced in 1983. The Malaysian civil service has encouraged the adoption of the Anglo-American new public management by commissioning management development programmes, sending students to institutions like Harvard, MIT, the London Business School and INSEAD and by inviting and consulting foreign experts such as Michael Porter, David Osborne, Ted Gaebler and the late Peter Drucker to Malaysia (Common 2001). For higher education, this trend led to the corporatisation policy introduced in 1996. The corporatisation of public universities was meant to make the universities more open to economic and societal needs. By increasing the efficiency, more students could be educated, research could be expanded and the university could become more relevant for the country’s vision to become a developed nation. One instrument was to introduce a new management structure in the university, with increasing power at the central university level. Formerly, decision making on university matters tended to take a long time due to the large academic senates (e.g. 200 members in UM). The Vice-Chancellor in the corporatized university has the role of the chief executive officer, the council has been substituted by a Board
of Directors, and the senate has been reduced drastically in membership. The objective of responsiveness needs to be achieved through the inclusion of community and business members in university bodies. According to the University and University Colleges Act of 197, the Board of Directors has eight members, one being a representative of the community where the university is located and “not more than three persons who because of their knowledge or experience would in the opinion of the Minister be of assistance to the Board, at least one of whom shall be from the private sector”. External constituents play only minor roles in other university operations and in most cases this is not formalised. The corporatisation has also led to accountability measures. Much emphasis from the national government has been on the implementation of ISO9000 in the public service sector, including the higher education sector. UM adopted the ISO9000 model into their university, and all the auditing and documentation that comes with it. In addition, a wide range of performance indicators have been developed in order to evaluate the quality and quantity of research in the universities. All this has led to a comprehensive auditing system with large quantities of papers and numbers being trafficked through the universities.

The relation between the national government and the university however remains very close. With respect to fees, programmes and funding, the corporatisation policy in the late 1990s has become somewhat symbolic in nature. An important area where the corporatisation has not been implemented according to its main principles is the regulation of staff. The corporatisation would transfer staff issues to the universities but staff are still civil servants and universities still have to go to the central agencies for salaries and appointments. The sustained strong role of government in higher education can be linked to the importance of education and higher education in Malaysian politics. Issues concerning higher education and research are regularly discussed in national parliament and frequently make national headlines. Moreover, both the current and the former prime minister and the current deputy prime minister are all former ministers of education. This close university-government relationship is most obvious for those universities that serve as flagships for higher education in the country, such as UM and USM. As a result of the incomplete implementation of the corporatisation policy, Malaysian universities are in a situation where academic power has been curtailed and been transferred to the central governance level of the university, while the government has barely allowed more institutional autonomy.

**REFLECTION: GLOBAL MODELS, DISSONANCE & DIScrepancy**

Global models will always need some degree of adaptation and contextualisation, but even then, there are likely to be tensions and inconsistencies between the models and existing national circumstances. This section will reflect on the way in which the model of the service oriented research university was adopted and explores how the ‘foreign-ness’ of the model impacts the way it is embedded in a country’s policy and institutional context. This impact can take the form of discrepancy between global model and adopted model or of dissonance between model and context. In the case of a discrepancy between the global model and the adopted model we can talk about incomplete and/or inaccurate adoption. In some cases, specific models might be deliberately copied from one place to another. This transfer may be only partially or it might occur inaccurately due to a lack of information. In other cases models are used as a source of inspiration for policy learning and models were never meant to be copied exactly and entirely. The question that arises with processes of adaptation and incomplete transfer and adoption is whether the adopted and adapted model still

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serves the objectives for which they were meant. Dissonance between policy and context occurs when the models might be in conflict with other policies or incompatible with (historically grown) institutional structures or social, political and cultural circumstances. Some form of dissonance can always be expected to occur since the models are ‘alien’ to the national context. This can lead to different outcomes. It might for instance cause a merely symbolic adoption of specific models because the models are incompatible with domestic institutional structures. The reasons to adopt the global models seem to be partly based on a logic of appropriateness by which governments seek legitimacy in the international environment (March and Olsen 1998). Dissonance can also be a conscious, rational choice. Specific models might not fit the institutional or cultural context of a country, but the ‘alien’ models are specific attempts to reshape this context. Sometimes the dissonance is not intentional, but there is simply an inconsistency in policies. Malaysia has shown a fairly deliberate form of transfer and adoption of the service oriented research university-model. Ministers and officials frequently visit systems and universities in other countries, invite foreign experts and state that they want to copy practices of the world’s leading institutions. The inspiration here is in many ways confined to the Anglo-American part of the world. Indonesia on the other hand shows a more diffuse pattern, transferring and learning models from Europe, the United States, Japan and ASEAN partners.

The Indonesian higher education and research policies conflict regularly with the wider knowledge policies, or rather, the lack thereof. Indonesia, and especially the areas outside greater Jakarta, has experienced a lack of foreign direct investment and in particular investment in advanced technological areas. While universities are forced to seek funding sources in the private sector, the knowledge demand of the private sector is either too low or too much based on non advanced operational knowledge. This leads to a lack of opportunities for university-industry cooperation and to cooperation based on short term benefits. It insufficiently results in the development of an advanced knowledge base where synergy is created through linkages between university, industry and government. The BHTV is a region where such synergy is sought but has of yet failed to emerge. Other policies that emerged after the economic and political crisis can also adversely affect the entrepreneurial activities of universities. For instance, new regulations to battle corruption prevent universities to become involved in research projects that are contracted out by government agencies. This forces universities to create legal constructions that put these activities formally outside the university.

There is a structural dissonance between Indonesia’s knowledge policies and its structural economic and political factors. The structure of the economy is still large based on agriculture and manufacturing. Service industries and high technology manufacturing is limited to a few urban centres, especially the greater Jakarta region. Politically, there seems to be insufficient real backing of the rhetoric of the knowledge society and knowledge economy. Even though it is stated in the Indonesian constitution that the government has to spend 20% of its budget on education, the government has not yet showed this commitment. In addition, only a small share of this budget is spend on higher education. Spending on R&D is also low due to the limited government budget and the lack of domestic and foreign investment in high technology industries. In cultural terms, there appears to be some degree of incompatibility between the required skills for the labour market – especially the so-called soft skills – and the hierarchical culture which is apparent in teaching and learning. More student catered and competency based methods of teaching are brought into place to change this.

An analysis of the way in which Indonesian research universities have incorporated the global model of the service oriented research university, clearly shows the interplay of historical path dependencies and pressures
for global conformity. In the past, academics depended on a network of linkages with domestic and foreign partners in order to get round the political control over academia. The buffer created by academics in the past to resist political influence is now often used to avoid institutional managerialism. The autonomy and the budget cuts have resulted in scattered pockets of (rigorous) academic entrepreneurialism by those who have connections with industry or government and with foreign universities and/or international organisations. Therefore the economic structure of the region and the presence of international business have become important. ITB clearly tries to benefit from this, but government and industry are underperforming in this respect. As long as there is a lack of high technology in Indonesian firms and as long as multinationals locate their R&D divisions elsewhere, the economic commercialisation of research is difficult to achieve.

Clearly, a discrepancy can be observed between the global model of the service oriented research university and the way Indonesia has adopted the model. In this respect it differs from many East Asian higher education policies of promoting strong state-led investment in higher education, aiming to make a ‘world-class’ university within a short period of time (Kim 2007). In the transfer of the model to Indonesia, the focus on budgeting issues has gained priority, especially after the Asian crisis. The autonomy status came together with severe budget cuts, which has necessitated the universities to emphasise the money making services to society and economy. For the institutions, balancing the budget and increasing external funding sources gains priority, while the mission of serving the society and economy appears to be pushed to the background. Various models have been taken aboard by Indonesian universities, but have been adapted to such an extent that the original objectives have not (yet) been achieved. The development of university spin-offs and incubators is undertaken at the university level but have not yet had the desired results. In the case of UGM, the strategy has led to only one, although relatively successful, company. Spin-offs by individuals, set up outside the university framework have been more successful in the case of ITB. Efficiency has indeed become imperative for the autonomous Indonesian universities.

The idea of autonomy has been much more consistently executed in Indonesia than in Malaysia, although there are still remnants of the era of strong governmental control. Most importantly, university staff are still civil servants and the government is still involved in academic appointments, although in a more indirect way. Some faculties are already hiring academic staff independently, but this usually goes together with significantly less job security than the civil servant staff. All in all, one can conclude that the way the Indonesians have taken up the model of the service oriented research university benefits the knowledge economy and society in some ways, but seriously forms obstacles for its development in other ways. Universities involved in economically relevant education and research – mainly in science and technology related fields and management – have been pushed to diversify their funding sources to cope with less government funding. This has made them more entrepreneurial, illustrated by the many new peripheral organisations that are being set up in and around the core functions of the university. For subjects that do not have a direct economic relevance, like the humanities, some social sciences and some natural sciences, such opportunities are lacking.

For the Malaysian case, the fact that the government is very much committed to the development of a knowledge economy resulted in better opportunities for university-industry cooperation. The government has invested considerably in the attraction of FDI and the establishment of Malaysian knowledge industries. Although foreign investments are not always in the advanced technology sector, some have led to opportunities for university-industry linkages, in research as well as professional education. Yet the lack of
success of Bionexus and the moderate success of the Multimedia Super Corridor also shows the limits of a
government’s role in the construction of regional or national innovation systems. Entrepreneurial units within
the universities, like USAINS in USM, seem to be better able to connect to industrial needs and opportunities,
as long as they have the opportunity to operate freely and with a certain degree of flexibility.

Another source of dissonance might be situated in the ethnic policies of the government. Although the
government has clearly stated that meritocracy will be the criterion for entrance to universities, the policies
that favour ethnic Malays (the bumiputra) still resonate in university policies. Even though the current ethnic
distribution in universities roughly resembles the nation’s distribution, there are indications that favourable
treatment of the bumiputra still continue in the universities (Sato 2007). In serving the non-traditional
segment, (e.g. through professional education), preference is given to the Malays. The composition of
academic staff in the public universities also reflects the history preferential treatment. The development of a
knowledge economy and the ethnic policy of Malaysia clearly show a conflict. It has led to the brain drain of
non Malays to countries like Singapore, the US and the UK. Also it has complicated the opportunities for non
Malays to pursue careers in the public sector and to independently own business. Critique on the preferential
treatment of Malays is an extremely sensitive issue in Malaysian politics and is often suppressed by the
national government through an appeal on preserving national harmony. Meritocracy is a necessary principle
of the knowledge society and – although this principle has been adopted symbolically – many issues in and
related to higher education and research are still infused with the affirmative action policies that the
government has pursued the past four decades. The fact that debate on the issue is often suppressed
contradicts another necessary principle of the knowledge society, namely openness, a culture of inquiry and
the polycentric nature of knowledge production.

Malaysia picks items from the menu of the new public management and mixes it with indigenous or domestic
items to create a specific Malaysian blend. The way in which Malaysia adopted the model of the service
oriented research university is clearly a case of partial transfer and therewith creates discrepancy between the
original and the adapted model. The Malaysian universities have adopted the model, but government
regulations do not provide enough flexibility to exploit the full possibilities. The tight government control on
universities, in terms of resources, labour regulations, restricted access and certain impediments to academic
freedom make it inconsistent with the objectives of openness, relevance and responsiveness. The current
adopted model does not provide the necessary stimuli for entrepreneurial behaviour. Although
entrepreneurial centres exist, they remain very much associated with the IRPA funds or the new Science,
Techno or Inno-funds and less to industry. Although this might have hampered entrepreneurialism and
creativity, it has led to a solid base for scientific research in the Malaysian universities, much more than was
the case in Indonesia. The partial adoption of the model is also a result of the transfer of negative lessons. In
reference to the Asian values, or an Asian way, specific unwanted characteristics related to the model, for
instance the emphasis on competition, have been deliberately left out. Competition is mostly reputational, not
so much related to resources or students. Although the ‘Asian values’ rhetoric is also apparent in Indonesia,
the Indonesian government has not had the funds to keep a tight grip on their higher education institutions. In
Malaysia it has done so, despite the corporatisation policy. The corporatisation policy is symbolic but it is not
clear whether it was intended this way or whether this has been an unintended path. Surely, the government
had to revise its corporatisation policy somewhat after the Asian economic crisis, but nevertheless it has

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appeared to be reluctant to part with its power over higher education long after the crisis. This seems to be consistent with the rather paternalistic nature of government-society relations in the Malaysian context. This exposes an interesting feature of the service oriented research university, since it needs a strong government commitment to the universities’ services to the economy and society, but at the same time it needs independence from government. Although in the Indonesian case the commitment of the government is not sufficient, it seems that in the Malaysian case, independence and autonomy is not implemented sufficiently.

CONCLUSION: ONE MODEL FITS ALL?

The paradigms of the knowledge economy and knowledge society are apparent in Indonesian and Malaysian discourse and their policies. The accompanying model of the service oriented research university clearly forms the basis for higher education policy reforms in the countries. At the same time, the analysis above shows that the models have been adopted in different ways in both countries. From a government perspective, this has led to a comprehensive strategy in Malaysia to enhance the skill base of the nation. In Indonesia on the other hand, a lack of policies can be detected. The service oriented research university is a model that has emerged in nations with well developed higher education systems and with a long history of university education. It has emerged as a response to a situation where more relevant knowledge was required, but systems were already massified; where knowledge was produced, but not sufficiently in the context of application; where academics worked in isolation in their ivory towers; where relevance was determined from within the academic community, not by government or other external stakeholders. These conditions were rather different in the universities analysed in this study. In general, their degree of academic freedom was lower and financial and regulatory control of the government was higher. Due to demographic developments, the massification started off much more recently and was much more intense. As a result, a research culture was nonexistent or poorly developed. On the other hand, links with outside partners were ubiquitous, mostly on an individual basis in order to supplement the meagre salaries.

The universities in Malaysia and Indonesia thus adopted a similar model as their counterparts in the USA, Australia and some European countries. Sometimes they were directly or indirectly forced to do so. Sometimes they intentionally copied these models from their peers. In many cases, these changes have been adopted because of normative pressures. The case studies showed that this has led to inconsistencies between global models and local demands. At the same time, globalisation has led to so much information exchange on policies that the service oriented research university is simply seen as the contemporary template for the university. Many academics and managers and nearly all university leaders have been trained internationally, have frequent international visits, meet at international conferences, read international publications, email with their colleagues abroad, and compare themselves through international benchmarks and international rankings. In other words, the frame of reference for university strategies has become global. But at the same time, the historical antecedents and the contemporary mission are national.

In some cases however, it is not so much the model that is reconstructed, but the context itself. Models can be used as descriptive as well as prescriptive devices. Frequently they are used as a descriptive device in order to prescribe. In this process, the independence between the global prescriptions and the local reality is under pressure. The model of the service oriented research university becomes a prescription that alters the objectives. In other words, policy objectives are aligned with those of the model. Obviously, this especially
brings problems in those cases where real policy objectives and model objectives do not correspond closely. The spread and adoption of global models can have negative unintended effects because local characteristics and national missions are overlooked. Through the globalisation of public policy, the policy process partly turns from a creative problem solving process into a reactive mimicking exercise and therewith frustrates innovation in the policy process. On the other hand, models, best practices and benchmarks can also serve as a medium for policy learning and as a source of inspiration and therewith benefit the adopting institutions or nations.

ACKNOWLEDGEMENTS

This research was made possible by a Sesqui Postdoctoral Fellowship provided by the University of Sydney, held by the author from March 2005 until March 2008. I wish to thank all interviewees and the helpful staff at ITB, UGM, USM and UM for assisting me in organising the empirical part of the research.

NOTES

1. On the basis of 47 interviews in the four universities, the trajectory of diffusion, adoption and adaptation in these countries and universities were analysed. The interviews were conducted in the period August-October in 2006. Persons that were interviewed were either central level leaders, departmental or faculty leaders, leaders of research institutes and leaders of organisations with an external dimension. At the decentral level, the focus was on science and technology related disciplines on the one hand and management and administration disciplines on the other.

2. A community service internship for undergraduate students which used to be a national compulsory part of the undergraduate curriculum. On the national level, it is no longer compulsory but at UGM it is still a compulsory part of the undergraduate curriculum. The KKN programme originated from UGM.

3. In 2000, ITB, UGM, Universitas Indonesia and the Agricultural University on Bogor (IPB) received the status of ‘Badan Hukum Milik Negara’ or State Owned Legal Entity. This implied far reaching institutional autonomy.

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