The Research Imperative in the Evolving Environment of Public Universities in Malaysia

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ABSTRACT

The importance of original scholarship as proposed by Humboldt has shaped the research mission in universities worldwide. Universities in Malaysia which are the pivotal organisations of a knowledge society are mandated to fulfill the aspiration of the government for Malaysia to be a regional and international education hub. To meet this challenge, organised research has become an imperative in Malaysian universities. This study examines the factors impacting educational convergence and the Malaysian universities' adoptive response to this convergence at multiple levels: transnational, national and within the universities. We analysed both the standard-setting macro structures and the micro adoptive mechanisms, processes and agents which contribute to shaping the discursive space of research in Malaysian public universities. The theoretical framework preferred for the synthesised analysis draws on the neo-institutionalist theory (Meyer and Ramirez, 2000), self-referencing the social system theory (Luhmann, 1982) and the externalisation thesis (Schriewer, 2003). The neo-institutionalist theory helps explain the exogenous structural forces and general trends and the two latter theories examine the contextual, that is, the social, cultural, historical, political and economic factors which help to understand the idiosyncratic trajectories, processes and meanings of the responses of Malaysian public universities to the international research imperative. The data was collected through interviews with local academics from five public universities. The themes which emerged from the data were: (i) the role of the global and local convergence and divergence in the shaping of the research mission of public universities; (ii) the research policies and their unintended consequences; (iii) discipline differentials in the research output; (iv) innovative research in the service of the community; and (v) the bind of bias – problems of publication. It is hoped that the dialectic theoretical framework and the multilevel analysis will contribute towards an understanding of the research culture in Malaysian universities and advance research discourse in Malaysia.

Keywords: Higher education, research mission, public universities, dialectic theoretical framework

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1. INTRODUCTION

The currents of globalisation and information technology which have gained momentum in recent times have led to the alteration of formal education institutions worldwide. At a time when change is the only constant, it is indeed challenging for universities, whose main scholarship used to be to promote original inquiry or research since the times of Humboldt, to remain relevant and productive, yet flexible in responding to emerging social demands, technological change and economic realignments (Scott, 2006). As a result, almost all universities today have a mission statement which is generally based on the triad – teaching, research and public service (Scott, 2006). These mission statements mirror the ever changing philosophical ideals, educational policies and cultures of particular societies or institutions (Scott, 2006). Scott (2006), in his historical analysis of university missions, identified six core missions of universities due to state, national and global influences: state – teaching and research missions; national – nationalisation, democratisation and public service missions; globalisation – internationalisation mission.

In Malaysia, the democratisation of higher education has been mainly state-driven and has been adopted as the principal avenue for upward socioeconomic mobility and national economic development. This democratisation of higher education was the major component of the affirmative action prescribed in the New Economic Policy (NEP) of 1970, which sought to restructure society and eradicate poverty. As outlined in the five year blueprints of the National Mission – the 9th Malaysia Plan (2006-2010) and 10th Malaysia Plan (2010-2015), Malaysia hopes to realise its aspiration of becoming a high-income, innovation-led, knowledge-based economy and developed nation by 2020. In line with this national agenda, the Ministry of Higher Education (MOHE) implemented a plan for the Development of Innovative Human Capital at the Tertiary Levels in 2010 (MOHE, 2010). The mission of this plan is to "develop and put in place a higher education environment that encourages the growth of knowledge centres and individuals who are competent and innovative with high moral values to meet national and international needs" (MOHE, 2010). Notwithstanding these national and international ideals, none of the Malaysian universities made it to the top 200 places of the *World University Rankings* published by the Times Higher Education Supplement in 2011/2012. One of the public research universities which was ranked 168th in 2010 fell 40 places in 2011. Another three premiere public (research) universities followed suit – sliding about 40 to 80 places respectively. In sharp contrast, many universities from other Asian countries – namely South Korea, Hong Kong, Japan, Singapore, China and Taiwan – improved in their rankings. The MOHE attributed the poor performance of the public universities to the lack of maturity in research and citations which account for more than 50% of the ranking criteria. This attribution, however, has resulted in Malaysian public higher education institutions coming under greater public scrutiny.

Thus, MOHE has been left with limited choices but to be the driving force of research, innovation and commercialisation endeavours. At present, there are about 20 public universities in the country (MOHE, 2012) with at least one public university in each of the 14 states. Malaysian public universities are generally categorised into three: research universities which focus on research activities and teaching based on research and development (R&D), comprehensive universities that offer courses in various fields of

studies for all levels of education including pre-undergraduate, undergraduate, and postgraduate degrees and focused universities which place emphasis on specific fields such as technical, education, management and defense. These public universities have been urged by all parties (the higher education ministry and both the Prime Minister and Deputy Prime Minister alike) to rise adequately and transform to meet these challenges and become reputable universities in the region. The Deputy Prime Minister Tan Sri Muhyiddin Yassin in a recent news report stated that, "university lecturers and professors should be at the forefront of implementing commercially viable, high-impact research and innovation" (*New Straits Times*, 11 October 2011).

This recent accelerated emphasis on research is significantly affecting the public university culture in Malaysia and directly altering the lives of academics. In order to be reputable in the international landscape, that is, globally competitive, the universities in the country have been urged to establish a solid research base, have a number of pioneer researchers amongst their faculty, generate and produce high-impact, pure and applied research, attract and retain the best researchers, increase the number of postgraduate students and provide a conducive research and educational environment for both its staff and students. All public universities have thus, set up mandatory research and commercialisation activities for the promotion and assessment of academic staff. Several studies have been carried out in international universities outlining the seemingly new academic culture in institutions of higher education in different parts of the world. Tural's (2007) study focuses on the changing academic climate in universities in Turkey, whereas Gregorutti's (2010) study outlines the cultural conflicts experienced by professors in the United States and Mexico due to the pressure to produce more research in higher education. Another study by Salazar-Clemena and Almonte-Acosta (2007) examined the developing research culture in Philippine Higher Education Institutions (HEIs). Thus far, studies involving public universities in Malaysia have mainly focused on publication output (Jusoff *et al.,*2009) and the demands of research, teaching and learning in research universities (Gill, 2007). None of the studies have focused qualitatively on the plight of public universities and their faculties in keeping up with the "publish or perish" maxim. This study hopes to explore the impact of exogenous and endogenous factors on the research mission and activities of universities through the use of neo-institutionalist theory, Luhmann's self-referencing social system theories and Schriewer's externalisation thesis.

2. THEORETICAL FRAMEWORK
The intensification and acceleration of global forces in the educational industry have legitimised neo-institutionalist (Meyer and Ramirez, 2000) beliefs about the presence of evolutionary, universalistic convergence of rationalised 'best practices' and 'education world models'. The history of university missions across Europe and the United States testify how they are determined by macro influences like nationalisation, democratisation and globalisation (Scott, 2006). Others like DiMaggio and Powell (1983) and Dey *et al.* (1997) in more specific reference to the research mission of universities talked about 'isomorphism'- homogenisation trends among universities driven by economic and professional consideration.

Those who favour the neo-institutionalist macro determinism cite as evidence the impactful existence of international and global bodies like 'World Association for Educational Research', 'World Education Market' and 'The European Educational Research Association.' These are seen as providing global developmental trends and international standards. In the post-industrial or knowledge societies, the research mission of universities is driven by the demand for knowledge production, economic logic and the prestige of the world rankings of universities. In spite of the global dissemination of standardised educational models and the universalistic assumptions of the positivists, there is evidence of diversification in different social, cultural, political and economic contextual conditions.

Less deterministic perspectives like Luhmann's (1982) Self-referencing Social System Theory (SRST) acknowledge global convergence and national and local variations as well. A primary distinction of Luhmann's Social System Theory is that its focus of analysis is not individuals, groups, behaviours or institutions but the communication that occurs within and across systems. It recognises the agency of national and other endogenous factors in responding to international structures and pressures. Perry and Tor (2008: 515) sum up the SRST as "assuming the existence of multiple worlds and the idiosyncrasy of meaning within the local social context." They acknowledge the "liberty and autonomy of local actors in selecting and evaluating international models and adapting them to internal needs for supplementary meaning (Perry and Tor, 2008: 515)." As Bordieu (1989) puts it, endogenous agents 'refract' external pressures into their own logic.

The Luhmannian scheme of 'societal differentiation' is explained, in part, by concepts like 'self-reference', 'reflexivity' and 'reflection', "which conceptualise networks, processes and organised fields of sociocultural activity as a meaning-based social reality that observes and describes itself and uses its self-descriptions to organise itself - autopoiesis" (quoted in Schriewer, 2003 : 276). The self-referential nature of the subsystem, in this case the education system, allows the specific problems, particular intellectual traditions, national value system and other social and logistic constraints (Schriewer, 2003) to interplay with international pressures to filter them and make them relevant for the local scene. In complementing Luhmann's 'autopoiesis' process (self-organising), which refers to 'looking within', Schriewer puts forward the concept of 'externalisation'. Externalisation "calls attention to the interpretative reception and transformation, within the educational discourses of different nations, of relevant world situations, bodies of knowledge, and educational models that have taken shape at the international level" (Schriewer, 2003:277).

While the above may provide some justifications for the proposition of the neo-institutionalist theory, the 'creative deviations' (Schriewer) are equally obvious in the policies and ideologies of Malaysian education actors. The government policies have often been driven by a major agenda of national integration, to create social cohesion between numerous ethnic communities of Malaysia. The issues of social justice, of equitable distribution of opportunities, of fairness in socioeconomic and employment policies shape many decisions related to the quantity and orientation of public education in Malaysia. The New Economic Policy (1970) directly influenced the racial composition of university population because of the affirmative action for the *Bumiputera*. In spite of the nationalistic fervour (including the linguistic pride) and a determination to keep the sociocultural sensitivities intact, the many

shocks to the Malaysian economy encouraged the neoliberal ideology to allow market forces to organise the economic activity, side-stepping other priorities like the government's monopoly over education. All this pushed further the academics towards market requirements, industrial linkages and research-supported, innovative knowledge society. The response of the academics to this challenge is further explored in the results.

Both the neo-institutionalist and Self-referencing Social System Theory may be used to analyse the policies and ideologies of the Malaysian education actors namely, the government, the Ministry of Higher Education, the university administrators and the academics.

The Malaysian government has not been immune to the universal influence of globalisation, internationalisation, the prominence of the tertiary industry and neoliberalism. For example, education is now seen as a tradable commodity as proposed by the new General Agreement on Trade and Services Framework (GATS) which was negotiated by World Trade Organisation (WTO). The global influences are also evident in MOHE's emphasis on the development of innovative human capital for a knowledge-based society. This top-down approach has created parallels between the aims of public universities and the national development goals. In Thong's (1995) words, the Malaysian public universities have adopted the utilitarian model to achieve the national goals. In tandem with the rest of the world, the Malaysian government funding has also been regressing, resulting in the corporatisation of the public universities in accordance with the 'Universities and University College Act 1996'. More research-oriented and entrepreneurial academic staff is thus the requirement of a more self-supportive university.

The Malaysian public universities have responded thus far by using 'adoptive mechanisms' and 'semantic constructions' (Schriewer, 2003) in dealing with the research imperatives at the international level. As such, externalisation allows autonomy to the local institutions to select and evaluate international models, which account for differences and idiosyncratic meanings. It is hoped that the above dialectic theoretical framework and multilevel analysis mentioned earlier (at the international, national and university levels) will help explain both isomorphic tendencies and 'creative deviations' (Schriewer, 2003) of the research culture in Malaysian public universities.

3. METHODOLOGY

This study uses qualitative methodology to gain insights into the exogenous and endogenous factors influencing the research landscape of Malaysian public universities. A semi-structured interview approach was used to elicit responses on various focal areas – namely research output, publication, incentives, commercialisation, and language issues to name a few. A total of nine academics comprising seven from three research universities and one each from a comprehensive university and a focused university respectively were interviewed for the purposes of this study. Informants were selected to represent the academic staff from different disciplines and designations. The data collection process took a period of three months. All interviews were recorded and transcribed verbatim.

Each transcript was closely read and analysed using a three step formula proposed by Bazeley (2009) – describe, compare and relate. In the description stage, the demographic

features of the data were set out in order to provide the necessary backdrop against which further analysis would be read.

4. RESULTS AND DISCUSSION

This study is an attempt to understand how the exogenous and endogenous forces converge to impact the Malaysian national higher education agenda. MOHE describes the agenda as the development of innovative human capital in a knowledge-based society. The research mission of public universities is instrumental in achieving this. To examine this agenda, the dialectic theoretical framework and multilevel analysis were used to study how world educational ideologies and models shape the conceptions of Malaysian education actors (politicians, planners, MOHE, administrators and the faculty) at the public higher education institutions. The analysis further looked at the micro level for a deeper understanding of the processes of translation, adaptation and implementation as perceived and responded to by the faculty of the public universities. Their agency could help explain the divergences and idiosyncratic trajectories, construction and reconstruction of meanings that characterise the complex implementation processes of the transformation that the nation envisions. The analysis will also sensitise us to the symbiotic relationship between structure and agency that emerges from the data.

By integrating the understanding from the copious literature on the changing scene in education and the many readings of dataset, the following themes were identified:

1. The role of the global and local convergence and divergence in the shaping of the research mission of public universities
2. The research policies and their unintended consequences
3. Discipline differentials in the research output
4. Innovative research in the service of the community
5. The bind of bias – problems of publication

The themes above reflect the views of academics from five public universities. As mentioned earlier, only 5 of the 20 Malaysian public universities have been designated as research universities and the others as comprehensive or focused universities. This study sampled 9 interviewees, 7 academics from three research universities and one each from the comprehensive and focused universities for purposes of comparison. It was considered important that at least half of the academics were senior by designation or by years of service and half were lecturers with less than five years of service. It was hoped that this would provide us with an evolutionary perspective and an overall insight into the research culture of the universities while the junior academics' experiences and perspectives were still taken into account. This was indeed the case since the issues raised by the two groups varied a great deal. The data was drawn from various disciplines – medicine, accounting, business, social sciences, humanities and sciences and mathematics. The disciplines also appeared substantively related to research output. There were strong appeals for re-evaluation of research Key Performance Index (KPIs) to be discipline-specific. Academics from professional fields were torn between investing in sub-specialisation or research. The following thematic analysis is better understood against the background of the above demographic features of the sample.

4.1. The Role of the Global and Local Convergence and Divergence in Shaping the Research Mission

This theme is better analysed at the global, national and intra-university levels. There is much to be gained by recognising the reality of global forces in shaping the national, educational policies and reforms and the missions of the universities.

4.1.1. Triadic Missions of Convergence and Divergence

The triadic missions of the universities to propagate knowledge (teaching), create and advance knowledge (research) in the service of the public (commercialisation) have been institutionalised worldwide. The missions are acknowledged as a matter of course by the interviewees directly or indirectly.

> *"…as an academician you have a few roles to play: as a teacher, researcher, consultant or community worker"* ~ Interviewee 5

> *"Our KPIs include 40% teaching, 40% research and 20% service to the community…"* ~ Interviewee 7

> *"You need to have a PhD, you need to publish and have industrial linkages"* ~ Interviewee 2

However, other interviewees emphasised teaching and research and conspicuously ignored public or community service.

> *"The prescribed ratios are roughly 50-60% teaching and 30% research"* ~ Interviewee 1

> *"My KPIs are 50-60% research, 30% of teaching and clinical practice, but in reality 80-90% goes into clinical practice, 5-10% on teaching and 5% on research"* ~ Interviewee 3

The first interviewee, a less experienced faculty member from the humanities lacked any exposure to public service mission. Interviewee 3 from the medical faculty could perceive clinical practice as community service or is unaware of the third mission, which the government promotes as commercialisation of research.

In accordance with the neo-institutionalist theory, there should be worldwide convergence of the university missions and indeed the triadic mission is professed by the Malaysian universities. Although the public service mission or commercialisation of research has been a source of concern for MOHE, it would be interesting to conjecture with the help of the micro theories why some of the academics were not aware of the public service mission. The public service mission first evolved in the United States to meet its defense needs, making university research 'useful'. The process (reinterpretation, indigenisation and re-contextualisation) of its incorporation into the Malaysian universities' mission has not filtered down uniformly. In recent years, MOHE has seriously emphasised the commercialisation of research and in order to legitimise it at home, it refers to world models of public service. In Schriewer's (2003) terms, it gets externalised.

4.1.2 University Rankings – Convergence and Divergence

Another source of convergence between the global and national institutions of higher education is the pursuit of university rankings. Malaysia aspires to attract international students and faculty for which it has to compete internationally. University rankings serve as a good indicator of high standards. Research output is one of the most significant determinants of rankings and is used as a reputation tool which in turn translates into economic advantages. There is great deal of consensus among the interviewees about the importance of rankings to the government and the universities.

> *"The Malaysian government might outwardly say that they are not too bothered by rankings but I think it matters a great deal to them…"* ~ Interviewee 3

> *"…. there is a full new exercise of Higher Education where they are ranking and rating higher education institutions – SETARA and MyRA etc. With that being implemented, the universities are forced to move in the direction of research because the KPI is all by evidence"* ~ Interviewee 5

> *"We are very ranking driven"* ~ Interviewee 2

> *"….lots of emphasis on rankings"* ~ Interviewee 7

It is interesting to note that interviewees from the comprehensive and focused universities did not mention rankings of the university. It does not seem to be the buzzword on their campus because the comprehensive and focused universities neither lay much store by rankings nor insist on publications in ISI journals:

> *"Some lecturers do not bother with it because it does not matter very much at the end of the day"* ~ Interviewee 6

On the other hand, the research universities insist on ISI journals which have created frustration and discontent in certain quarters especially among the more junior lecturers:

> *"They are quite rigid. They tell you that should they fund the paper, it should have the criteria to get published in an ISI journal"* ~ Interviewee 1

> *"It is ISI or SCOPUS, it gives me sleepless nights.* ~ Interviewee 7

> *"They are not given a tutor post until they get an ISI publication, PhD is not enough"* ~ Interviewee 2

> *"I should be an associate professor but since I don't have that many paper publication in ISI journals, I remain as senior lecturer"* ~ Interviewee 3

Both, the rankings of the universities and publications in high impact journals, converge towards objective standard setting and world educational culture (Perry and Tor, 2008). And yet there is evidence of what Luhmann (1982) refers to as self-referencing or 'looking within':

> *"Last year it was high impact ISI publication only, this year they have toned it down"* ~ Interviewee 2

> *"Now publications in SCOPUS are also accepted"* ~ Interviewee 8

The international standards were negotiated to allow some adoptive mechanisms (Schriewer, 2003) towards greater flexibility to accommodate the limitations and constraints experienced by the faculty.

4.2. Research Policies and their Unintended Consequences

Often economic and political motivations legitimise the policies borrowed from the world education models as mentioned in the previous theme. The local universities benchmark their research output against international standards. There is much to be said for acknowledging the importance of agency which will draw our attention to examining the local context (Schriewer, 2003). Such understanding (of the local context) provides cognizance of implications of the policies, possible responses of the academics, their constraints and opportunities and the unintended consequences of the policies.

4.2.1 Research and Teaching not a Zero Sum Game

A very significant unintended consequence is the loss of focus on teaching as research comes to occupy a pivotal position within the university structure and in the reward structure:

"We are always talking about research and trying to get things done to the extent I sometimes feel that we de-emphasise teaching" ~ Interviewee 1

"You can see that the interest level to discuss teaching has been diluted as the main thing on their minds is that I have to publish" ~ Interviewee 2

"…so the time to put aside for teaching is minimal" ~ Interviewee 8

"Due to the research agenda, the teaching agenda is getting cast aside" ~ Interviewee 6

"We could now have good researchers but they are not necessarily great teachers" ~ Interviewee 9

Historically, tension between teaching and research missions have always existed in higher education but it has received fresh attention recently. Even "US universities are currently under some pressure to improve undergraduate instruction especially in the 125 institutions designated as research universities" (Serow, 2000: 450). Altbach and Lewis (1997) point out that faculty is regularly evaluated on the basis of both teaching and research. In spite of teaching awards and establishment of teaching and learning centers, there is hardly any doubt that promotions, salaries and bonuses reflect research productivity more than teaching performance (Hearn, 1999). Often it is contested that research enriches teaching and does not interfere with its effectiveness but a series of researchers such as Braxton (1996) point out that the overall relationship between faculty members' scholarly productivity and their performance as teachers is much less a zero sum game than critics have suggested (Serow, 2000 : 450).

These views coincide with the concerns of the Malaysian faculty as well. Junior faculty raise the issue of time constraints for teaching and the deterioration in quality of teaching compared to the senior faculty whose teaching is more research-focused anyway.

4.2.2 Games Academics Play

Other senior faculty members discussed how dysfunctional the 'number game' is:

> *"when they play the number game, they are compromising quality. Each faculty starts to produce their own journals. You are not competitive enough to publish in top-notch journals, so you publish to meet the minimum requirement."* ~ Interviewee 5

> *"The researchers at the lower end have gotten creative and started up their own journals and publishing houses – these publishing houses could create problems of quality"* ~ Interviewee 2

The 'number game' has resulted in the unsavory practice of:

> *"…supervising 15-20 graduate students and getting each of them to write and publish somewhere and get their name on the paper."* ~ Interviewee 5

Another insight provided by a senior faculty member is:

> *"people from research universities, are leaving to join teaching universities, you get the same salaries so the KPI policies have to be appropriate"* ~ Interviewee 5

The unintended consequences have the potential to render a policy dysfunctional. Policies are necessary. If they are made in consultation with academics, they minimise the negative element of the latent consequences. As such a dialogue between the policy makers and the faculty would improve the interpretations and adaptations to the policies.

4.3 Discipline Differentials in Research Output

Disciplines have become deified. Faculty even define themselves in terms of their disciplines - I am a Psychologist or I am a Chemist. So academics work in isolation and may in fact feel superior to academics in other disciplines. They have their own paradigms within which their research is located.

4.3.1 Systematic Bias

Some disciplines have been traditionally more powerful than others; particularly engineering, natural sciences, medicine and business. Many interviewees feel there is a systematic bias in favour of engineering and the sciences:

> *"There should not be blanket (research) KPI across the board because in social sciences, unlike natural sciences where you can just vary the variables in a confined lab and provide a new paper, ours is the open world with people in it. They have to understand the context of social sciences"* ~ Interviewee 5

> *"…science departments do more research, I think it is because of the nature of the discipline"* ~ Interviewee 4

"It is said that sciences get more grants which is because they buy equipment that are very expensive. Easier to get money to buy machinery or products. But we need data and for that we need money for field work ~ Interviewee 2

"I felt that the Arts get very little whereas the sciences, engineering, IT etc. get more so there is possibility to commercialise their work, hence the university is more willing to invest in such projects as it could bring returns. Even when you look at the grant award list, you will only notice very few names from the arts, humanities etc. and most of the names are from the medical, sciences and engineering faculties" ~ Interviewee 1

"Most of the people who design these things (KPIs and policies) are from engineering and medical backgrounds. They don't understand the background of social sciences when they came up with KPIs, they are probably achievable in natural sciences but not in social sciences" ~ Interviewee 9

"They have to reevaluate their policies with regard to various disciplines" ~ Interviewee 8

"Many opportunities are being given to the science faculties, there is greater availability of grants" ~ Interviewee 6

"From what I hear the engineering or natural sciences departments only have to emphasise the findings and the report is quite simple, whereas our reports are far more demanding" ~ Interviewee 7

Interviewees are almost unanimous in what they perceive as an advantage for the engineering and science departments both in terms of ease of research output and in procuring grants. The KPIs are seen as being tailored with them in mind and ignoring the realities of conducting research in social sciences, humanities or business.

4.3.2 Dilemma of the Professional Schools
The professional schools (medicine and accounting) face a unique predicament:

"We are employed by the hospital and that consumes 80-90% of our time. According to the university though my KPIs should be 50-60% research, 30% teaching and 10% clinical practice while in reality 80-90% of my time goes into clinical practice and 5-10 % in teaching and 5% in research" ~ Interviewee 3

"The sad thing is that the university does not recognise the sub specialty but the hospital does so there we go again with the peculiarities of being employed by the university but working in the hospital" ~ Interviewee 3

"Furthermore, if it is accounting faculty, you need some faculty members who will also be professionals. It is difficult to attract them. They will earn less here and have to keep publishing – for what?" ~ Interviewee 2

The discrepancies in the KPI policies should be examined in terms of discipline specific requirements of research output and the peculiar position of the various professional schools so that academics feel they are being fairly appraised. In the knowledge society, research in language, humanities and social sciences cannot be undermined, as information is replacing material objects as primary economic and social forces. These subjects have concerned themselves with issues that affect our culture, examining, among other issues, how power and ideologies structure the way we see the world" (Duderstadt, 1999 : 259).

Only one interviewee made reference to the lack of interdisciplinary research.

"These groups do not work across fields and do interdisciplinary research. There is a lot of expertise but they think that their field is superior…" ~ Interviewee 5

There are concerns about the fragmentary nature of knowledge and the need for flexibility and fluidity in research. New funding policies favour multidisciplinary teams of scholars because "new ideas are often birthed in the collision between disciplines" (Duderstadt, 1999: 259).

4.4. Innovative Research Commercialised in the Service of Community

Historically, it was with nationalisation and democratisation that knowledge and research were made available for the benefit of the nation or society – the public service mission of the university. Most developed countries deployed research and knowledge produced at the universities for the purposes of national economy, defense and health industry etc. Faculty thus became research entrepreneurs. As Malaysia moves from a resource-intensive to a knowledge-intensive economy, it aims at developing innovative human capital in its tertiary institutions.

4.4.1 Growing Aspirations toward Commercialised Research

Researchers at the universities are thus expected to be not just creative and innovative but also entrepreneurial and collaborative. These aspirations are reflected in the responses of the interviewees of this study:

"My research is coloured by my industry experience and my collaborations are mostly with people in the industry" ~ Interviewee 2

"They had patented a few instruments through the university. They have learnt from previous mistakes and this time they have done it more correctly. Previously they were short changed here and there but they have learnt from it. The infrastructure is there but it is very bureaucratic" ~ Interviewee 3

The accounting practices are moving so fast that instead of we informing them they are informing us. But in the US, they have grants for research informing standards for example in our faculty only a few researchers do research to inform the standards- I am involved in such research at the moment" ~Interviewee 2

"Yes, innovation. They are looking at industrial linkages – the research is more commercial and more applied" ~Interview 4

"Your research should be relevant to the industry, but this group is happy in their cubicles. Fundamental research is important but you can work with others to translate it into applied research. Some people just aim at becoming professors by a certain age. Our research should involve industrial players" ~ Interviewee 5

"I feel they are mostly looking for products. Otherwise your research might be considered a waste of time" ~ Interviewee 6

"There is one department set up to take care of entrepreneurial, innovative and creative research and one may start with fundamental research but at the workshops, they will gear you towards entrepreneurial research" ~ Interviewee 7

Once again the researchers from the professional school (medical and accounting) are already into the game of patenting – but face obstacles like "too much bureaucracy" (Interviewee 3) and "a lack of grants for specific kinds of research to inform standards" (Interviewee 2). They are moving towards entrepreneurial research although the attempts are few and far between – there are a very low number of patents and commercialisation of research and development products. Other interviewees seem aware of the importance of industrial linkages and entrepreneurial research although more as an aspiration or an idea towards which they may strive. MOHE in the Agenda for Innovative Malaysian (AIM) blueprint 2009 has discussed some relevant concerns. The ones pertinent to this study are the insufficient number of postgraduates (25% in 2009), weak strategies to retain talent – 'Brain drain, limited entrepreneurial skills (of researchers), limited communication between academia and industry and a weak ecosystem for innovation which would require the government, education, industry and ventures to work in tandem to create an innovative Malaysia.

Research universities in the United States have expanded the "knowledge-creation industry because they were accompanied by powerful think-tanks, like the Rand Corporation and Corporate labs" (Baxter and McMillan, 2010: 8). Singapore, South Korea and Israel have created research clusters which have given them steadily growing economies and stopped brain drain to retain their talent and even the Apex University in Malaysia is moving towards a pre-cluster stage.

Commercialisation of research has received criticism from some quarters which argue that the public service mission for universities is in reality submission to the power of the business sector or that the universities are fashioning themselves after bureaucratic organisations. These criticisms notwithstanding, the onslaught of commercialisation of research is quite relentless and determined to sweep the developing countries.

There is simultaneity of both convergence and divergence with regard to the commercialisation of research in Malaysia. The Tenth Malaysia Plan reflects the global trends of research in institutions of higher learning to be entrepreneurial and collaborative while the neo-institutionalists would view the transformative education policies as stimulated by external forces leading to the current developments. Equally significant is the local reality of the Malaysian mindset in its non-acceptance of Malaysian inventions and products,

which is proving to be stubborn and resistant to change (MOHE, 2010). According to Luhmann's theory of self-referential systems – systems keep reproducing themselves by using built-in internal references that support current mindsets. Hence, the resistance to change (Steiner-Khamsi and Quist, 2000). At this point, it becomes necessary to make 'externalised' (Schriewer, 2003) references to justify and push reforms.

4.5 The Bind of Bias in Publication

Scholarly publication has become increasingly difficult everywhere and more so for scholars who do not belong to the core countries, barring them from participating in global academic communities. There could be cultural, linguistic, stylistic, political and economic factors operating to exclude them from the publication world as suggested by a host of studies (Braine 2005); Canagarajah, 1996; Flowerdew, 2008; Salager and Meyer, 2008).

4.5.1 The Many Faces of Exclusion

Interviewees have experienced rejections and exclusions and perceive it as bias in the publication industry:

> *"…they notice that if you are not a native speaker, they tend to have some prejudice against the paper"* ~ Interviewee 2

> *"The language may also be a stumbling block. In the medical faculty, maybe not too much of an issue but even here some personnel find it challenging to write a journal paper"* ~ Interviewee 3

> *"However well we write, it is not the same as a native speaker. Singapore has done well because they bring in foreign professors who groom the local ones, if you have such strategies it is fine. You cannot expect a local who has studied in Sekolah Kebangsaan to write that way even if he went to the United Kingdom to get his PhD"* ~ Interviewee 5

Flowerdew (1999) points to the technical problems such as less facility of expression in English, meagre vocabulary, inappropriate use of idiomatic expressions and convoluted syntax as the main obstacles. Li and Flowerdew (2007) found that even many revisions do not render the writings native-like – as expressed in

> *"all of us do send papers to various journals, but as rejections come in – you redraft and rewrite and redo and finally it gets dropped"* ~ Interviewee 2

> *"Sometimes it is language, other times papers get rejected because they do not have international appeal"* ~ Interviewee 8

The problem of parochialism has also been discussed by journal editors participating in Flowerdew's (2001) study. They remarked that when the scholars fail to go beyond local contexts, they are not seen as relevant to the core communities (Uzuner, 2008) which is unfortunate as the periphery perspectives may provide unique insights (Canagarajah, 1996).

Belcher (2007) found that maintaining a network of connections with the core disciplinary communities is a powerful tool and the interviewees realise it as expressed in the following quotes:

"Also when we have visiting professors, through informal conversations we realize that he or she is able to get papers into top journals within three weeks because he/she met the editor at a conference and they had tea…" ~ Interviewee 2

Or

"…if your co-author is someone well known" ~ Interviewee 2

There are other biases which restrict scholars from joining the publishing club. It could be national origin, institutional affiliation or even race (Aydinli and Mathews, 2000):

"The university you come from may have a bearing on acceptance of your paper" ~ Interviewee 1

Most challenges mentioned in publishing literature have been experienced and mentioned by the interviewees although there seems to be a lack of awareness about (i) how their writing may be diverging from accepted norms of research reporting, (ii) how that may be related to their specific disciplines, and (iii) how this is leading to their invisibility.

Malaysian researchers participate in the normative 'publish or perish' maxim along with the worldwide research community but their academic contexts, background, opportunities to socialise with research and publishing mechanisms, their interpretation and adaptation mechanisms are unique. These get translated into quite a remarkably different research culture.

5. CONCLUSIONS

Public universities in Malaysia especially the research universities have quite successfully reorganised their priorities to promote scholarly vigour among the faculty. The reach of scholarship is growing at the individual faculty level as well – even making inroads into the academic psyche. Yet in spite of its unremitting efforts in the pursuit of research scholarship, Malaysia is trailing behind in the international ranking of its universities. Despite handsome incentives and very stringent KPIs of publishing in ISI journals, the academics have not met the publication expectations for some of the reasons discussed above. There is increasing awareness to produce a useful knowledge corpus to stimulate commercially oriented research and to form research clusters with industry. A taskforce for this has been set up for MOHE – IP to develop innovative collaborative and entrepreneurial human capital. It would be encouraging for researchers to know that economists in the United States have rated university research as the best investment taxpayers can ever make. The local researchers can aspire to take entrepreneurial research to that level. As an emerging mission of universities, internationalisation is the new watch word, constituting a flow of new information, faculty members, curricular content and students. In Malaysian universities, internationalisation is still largely represented by an international body of students only.

The authors suggest that great scholarship and research thrive under a combination of factors: (1) Government and corporate funding needs to be increased as Malaysia only spends 0.6% of its GNP on research funding. (2) The KPIs need to correspond to the unique opportunities and constraints of the various disciplines. (3) Research needs to be imbued by interdisciplinary perspectives and methodologies, and socialisation into the core requirements of publishing. (4) Research mentors should be made available.

The race for proliferation of research output must not be allowed to undermine its quality. It would be also important to maintain an optimum balance between teaching and research. Universities may become multiversities by balancing the various complex roles expected of them today and establishing their relevance to society.

By favouring a holistic analysis of the research mission suggested to integrate the endogenous and exogenous forces and to transcend the dualism of macro and micro levels, we can draw on the insights of the neo-institutionalist theory as well as the self-referencing theory and the externalisation thesis to explain the convergence and instances of missed universalism (Schriewer, 2003).

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