

# Transforming Public Institutions: Some Conclusions from Applications of Scenario Planning Method to Determine Strategic Directions

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## Abstract

*This paper explores the efforts at transformation undertaken by four public institutions in Malaysia in response to Government demand. Their experiences are discussed and analysed based on the different methods chosen by the institutions in mapping their future strategic actions. What became clear is that scenario planning methods were found to be more superior to strategic action planning methods for some but not for the others depending on the initial objectives of their transformation initiatives. The former allowed for a leadership to assume a full charge of the process and attain a clear-sighted vision of a possible or a preferred future thus enabling the institutions concerned to determine their strategic directions at transformation.*

**Keywords:** institutional change, transformation processes, leadership, scenario planning, preferred future, strategic actions

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## Introduction

Ever since the new Government took office in Malaysia in 2009 it has introduced several major policy shifts in the Government and economic sectors. The demand is for 'transformation' in order to achieve a high-income status country. In response various Government departments and agencies including the higher education institutions and the other two discussed below, have undertaken several initiatives to prepare themselves for change. While the process has meant that dislocations have become a commonplace in many of the public institutions involved, interesting observations can be made about such issues as time-frames by which the institutions would like the process to be com-

pleted, the choice of a suitable method to achieve their transformation goals and the question of who is going to lead the transformational process.

### **Brief Profiles of the Four Institutions**

Selected for discussion in this paper are two higher educational institutions in Malaysia, the Universiti Sains Malaysia (USM) and the Universiti Teknologi Petronas (UTP), a private higher education institution linked to the National Oil Corporation, PETRONAS; the Malaysian Examinations Council (MPM), an institution that administers examinations in the country and the Malaysian Industry Government Group for High Technology (MIGHT), an institution that oversees the development of technology and innovation for the country and comes under the purview of the Ministry of Science and Technology Innovation (MOSTI).

For these institutions the challenge is to institute change following a fixed time-frame and with as little damage as possible. For some like the USM, it has been able to stay ahead of the pack as it has already started a change exercise as early as 2002. For the UTP the strategy has been to proceed only in order to attain the status of a Research University. This is a criteria introduced by the Ministry of Higher Education, Malaysia in 2007, to ensure a more concerted effort among the selected Universities and to harness the capacities of the Research Universities to expedite growth in R & D and innovation. (Until today only four Universities have been recognized in the country as Research Universities by the Government and this includes the USM). In the case of the UTP it conducted a series of workshops in mid-2009 to explore the benefits of scenario-planning. But as it turned out its interest was only directed at determining a set of strategic actions to be taken in order to achieve the status of a full-fledged Research University.

In the case of the Malaysian Examinations Council it too started its own exercise of instituting change since 2007 and has even moved on to determine a 'preferred future' model for itself. Here is a situation where the leadership has expressed its readiness to proceed with the transformation process but the institution and its stakeholders and the Government included, is not willing to move forward yet. The outcome of a workshop held in August 2010, to follow-up on the scenario-building exercises it had gone into previously, could not achieve any substantive decisions even though most of the stakeholders were present.

MIGHT, the fourth institution to be considered in this paper, has had a long history. It was established to spearhead the technological drive of the Government in the 80s and 90s, and to gain advance technology and the expertise to manage this in the future. For this purpose it had linked up with the Commonwealth Partnership for Technology Management (CPTM), based in London. Since 1995, MIGHT as an institution has been functioning as a key player in the so-called Smart Partnership Dialogue SPIRAL (Smart Partnership International Regional Action for Limitless opportunities).

Most recently it decided to launch the MyForesight Initiative as part of a bigger National Foresight Programme. This followed the earlier effort to establish myFutures as a coordinating Centre for Malaysian Futures. At the same time it is also gearing

itself to become the prime-mover to work out the preferred and alternative scenarios for Science and Technology development in the country for the next ten to fifteen years. It hopes to come up with the Foresight Roadmap for the country for the years 2011– 2020.

### **Institutional Transformation**

For Malaysia strategic planning on a national basis has followed a model of development cycle of five-year duration. Since achieving Independence in 1957, nine such Five-Year Plans have been carried out. Each of these Plans embodied the macro-economic planning for the country and tracked the progress of development in all sectors from education, health and agriculture to defence, trade and environment. The Coordinating body rests with the Prime Minister's Department.

In 1990 the country unveiled its long-term strategic planning model named the Vision 2020 that is purported to take the country into the 21<sup>st</sup> century as a developed nation. It entailed the nation to accept the nine challenges along the way and this include forging a united Malaysian nation, evolving a society that is just and equitable, and to be based on science and technology. To a certain extent in terms of time frame the transformation must be completed by the year 2020. To date the Government has introduced the New Economic Model meant to catapult the country into becoming a high-income economy country earlier than the targeted year. To achieve this aim the Government has also put in a requirement to monitor the progress attained through a series of National Key Results Areas (NKRA) that are to be personally monitored by the Prime Minister and his team. With such a high-profile involvement from all quarters the demand to keep to the scheduled targets and dates will always be there for the institutions mentioned above.

### **Impact of Institutional Change**

By the turn of the century many of the public sector institutions especially the Universities began to adopt change strategies similar to those followed by higher educational institutions in the West. that were merely copies of those in the West but with varied results. The consequences of adopting internationalization initiatives for example did not bring the expected results.

The process of internationalization, regarded as a very high priority among Governments in the Asia Pacific, for example, that refers to the capacity of higher education institutions to integrate into the global context has its drawbacks, when translated into a local setting like Malaysia. For one it has to conform to the Government's guideline to strive to make the country into a centre of educational excellence. Secondly it invites cross-border institutional crossings that are mainly European-based. This results in the problem of 'brain drain' becoming more endemic as the European universities began to cream off the best of the Asian brains. I do agree in this connection with the remarks made by Tan Sri Prof Dato Dr Dzulkifli Razak, the Vice Chancellor of the Universiti Sains Malaysia,

*"The situation will be even worse if the banner of internationalization is viewed as similar to an imperialistic or hegemonistic pursuit of offsetting one nation's human and intellectual deficit at the expense of the other" (Dzulkifli, 2010, p.2)*

In another situation the resulting erosion of local values and practices in the host countries, did go against the very objectives of internationalization in the first place. As a way out Dzulkifli suggests taking an inclusive approach to internationalization, one that proposes to shape a new strategic platform for global partnership and integration where the game is played on a level playing field.

We examine below the various scenario planning methods applied in the transformation exercises undertaken by the respective institutions. We will first look at the planning stages identified and then secondly move to a consideration of the actions taken to meet the challenges encountered. The discussion will end with an overall presentation of the commonalities and differences encountered along the way. The main assumption of this paper is that a transformation process can only take place if the institutions concerned have been able to create future scenarios and from there proceed to make strategic decisions based on a preferred vision of the future. Implementation of the preferred scenario would then comprise a critical part of the transformation process. This would involve a process of translating the various elements of the preferred scenario into sets of strategic action plans that would simultaneously determine the future directions for the institutions to follow henceforth.

In the discussion and analysis that follow several assumptions have been made regarding institutional change and the role of scenario planning in the process. These have been drawn from several theoretical works and practices including using the Futures Program as a tool for transformation by Donald M. Norris and James L. Morrison, 1997, *Transforming Institutions to achieve Innovation* in research and development by Ann Stroud, 2000, *Scenario Development as a strategic planning tool* by Michael Drinkwater, 2003 and *From Scenario Thinking to Strategic Action* by Ian Wilson, 1976.

What became clear in conclusion are the following observations: change can only take place if there is institutional buy-in and excellent support from stakeholders; scenario planning tools can be applied in the transformation process but the resulting scenario logics must be translated into the institutional strategic plans; alternative strategies need to be developed based on potentials rather than focusing on barriers and anticipating possible consequences of certain strategies for the various stakeholders and finally listening to the 'silent voices'; as a strategic planning tool scenario development can assist in the setting up of a new strategy, as a review mechanism and as part of a larger planning process of an existing strategic plan; and scenario development is not the end but rather the means of translating the implications of the scenarios into executive decisions for strategic action planning.

### USM Transformation Process

While established sources would date the transformation process was adopted by USM only in the year 2000 I would put it that the exercise undertaken by the leadership began very early, at its inception in 1969. Already by then it was decided that USM should not follow the model as tried by other Universities both domestic and abroad. Aspects of student's life, teaching and learning and even certain nomenclatures of a University were made different. Units of teaching were named as Schools

while living spaces for students were designated as 'Desa' or community. The rationale is really to raise awareness among students and academics that a University must afford a space for nurturing minds amid natural surroundings. Greenery is left as it is and new buildings were only allowed if these could blend with the natural landscape. The image of a University in a garden that is later to become the preferred scenario of the University is very much evident here.

Forty years have passed. Today the leadership is still committed towards sustaining this scenario as the basis of its transformation. A lot therefore does depend on the continued push of this idea among the campus community and the stakeholders. Another contributory factor to the transformation process has been the continuous transformational leadership that helped led University since its inception. Moreover, USM has been fortunate that this present leadership has remained with one person since the early 90s. The Vice Chancellor for the last ten years has been able through the force of his ideas and the vision that has remained crystal clear, to steer a straight path towards a transformation of the University. The embodiment of this process has been the recognition bestowed upon the University by the Government in 2008 to grant it APEX University status. APEX refers to Accelerated Process of Excellence. USM has been given until 2013 to prove itself worthy of the recognition, by delivering excellence.

The change process was not difficult to institute as the University had already put in place a structure and a mindset that could accommodate the demands of the APEX University. In fact what followed were steps taken to provide the way forward such as the adoption of the Blue Ocean Strategy, a new Branding for the University and a reinvigoration of plans to make the University more relevant to the global needs of Higher Education. By mid 2010, a review of the transformation process revealed that a great many of the targets have been met. This is measured along a seven dimension scale that included the APEX Thrusts of The Future, Uniqueness, Sustainability, Humanity, Universality, Change and Sacrifice.

Briefly this journey during the years 2001 to 2010 can be summarized in a table form below:

Table 1.  
*USM Transformation Process 2001– 2010*

2001 – 2005				
2001 CORE VALUES	2002 INTERNATION ALISATION	2003 INNOVATIVE RESEARCH UNIVERSITY	2004 UNIVERSITY IN A GARDEN	2005 EDUCATION REVOLUTION
-Tangible -Intangible	-Megatrends -World-class research programmes -Excellence criteria -Flowering of intellect among students -Healthy campus -Centre for exchange for Arts and Culture -Mass sports -Setting up RCMO	-Knowledge- based -Innovation and Entrepreneurship as enabling factors -Cluster approach towards R & D -Sharing of experiences widened by bringing in students from West Asia, Russia and Korea -K-collaboration by reaching out to industries and institutions -Develop K- workers, K- professionals to achieve K- economy -Knowledge gallery: expertise directory -Research park/Science park: merging Arts and sciences	-Pioneering role incorporation intellectual aspects -Nature as source of indigenous knowledge -Develop the scholarship and learning eco- system -Draw on the intangible aspects from this garden eco- system -Superiority of design in nature made into principles of practice and critical success factors -Continuous change cycle in Nature to become mode of retaining niche or 'lead' positions -Diversity in nature can be utilized as strengths -Creating more- less through the principle of biomimicry -USM inside 12D framework	-Self motivation -Competitiveness -Innovativeness -Commercial- isation -Interdisciplinary to transdiscip- inary -Towards a truly modern University -Third Age University -Education for Sustainable development -Trust and Social responsibility of university

2006 - 2010

2006 SCENARIO POST- TSUNAMI	2007 SUSTAINING THE RMK 9	2008 WE LEAD	2009 APEX UNIVERSITY	2010 THE WAY FORWARD
-Look past to look future -Andalusian Beginning -Scenario Planning- Confronting changing mindsets	-full-fledged RU -support national mission and Vision 2020 -global player in MDG and EfSD	-To catch the stars -To attain the summit -SAINS @USM -We lead (resmi padi) - Achieving APEX through the five dimensions: Sustainability, Innovation, Glocalisation Mind-brain nexus Transformation	-One obligation -One sacrifice -Vision statement: Transforming Higher Education for a Sustainable Tomorrow -Strategic Model: based on Satir Change Model -New status quo to be achieved by 2013	-Blue Ocean Strategy -Passport: new vision and mission implementation -Business and community engagement -Future relevance and global agenda determined -New Constitution

In evaluating the change process that had taken place within the USM since achieving the APEX University status, it is to the credit of its leadership that this had been articulated very clearly. There was high awareness of the difficulties, constraints and challenges along the way. This was passed on to the University community in February 2009 at the Vice Chancellor's Annual Address to the University. The Vice Chancellor presented a Change Model based on the Satir Change Model that explained the change process in terms of a five-step movement up the so-called 'J-curve' as follows: introduction of an external element to shake things up, setting in of opposition and dissenting view inside and outside the University environment, a state of chaos will prevail and individual and university performance will see a decline, the actual transformation exercise will begin, and finally a new status-quo will emerge with the process of transformation continuing in full swing. The same could not be said for the other three institutions that we will discuss below.

## UTP Transformation Process

UTP's path towards educational excellence differed from that of USM in many ways. Established in 1997, UTP has expanded efforts to strive for a Research University status by 2013. The criteria for excellence that it adopted followed closely the set of standards determined by the Ministry of Higher Education. Included are the following: securing of international grants, increasing the research output of academic staff, upgrading the quality of publications of academic staff, attaining awards and recognitions, creation of new Chairs and the establishment of new Centres of Excellence. Towards this objective a UTP Transformation Plan has been drawn up focusing on the core pillars of a superior academic programme and the creation of Centres of Excellence in Research and development.

UTP's Transformation journey did not embrace a scenario planning approach like the USM. Rather it went along the route of a straightforward strategic planning exercise. The plan involves a three-step process:

Table 2.  
*UTP Transformation Process*

TRANSFORMATION FOCUS AREAS		
Organisation	Operational Excellence	Engagement and Communication
Organisational Structure	Framework for procurement processes, administration, facilities and technical support, and research management	Framework for strategies on engagement and communication

To complement the Transformation Plan, UTP conducted three exercises involving the following which taken together represent a framework for a strategic planning activity:

Table 3.  
*UTP Strategic Planning Activity*

14 July 2009 UTP STRATEGIC ROADMAP	29 July 2009 EXPLORING SCENARIO PLANNING	5-6 October 2009 UTP BUSINESS PLANNING
-UTP self-ranking against RU criteria -UTP Target projection for RU -UTP Transformation Plan Core Pillars and Triple Plus Elements: Leadership development Capability building Mindset and behavior shift	-Identify potential external events -Identify University's role and function -Derive implications and action plans	-3 Focus areas: 10 Malaysia Plan Education and Innovation Malaysia Higher Education beyond 2020

Upon the request of UTP the Universiti Sains Malaysia assisted in the Scenario Planning exercises on 29 September and 6 October 2010. For the session on 29 September, the facilitator was requested to provide an overview of strategic thinking using the following tools: Futures Triangles, Emerging Issues Analysis, Drivers of Change, STEEP Analysis and Futures Wheel. For the 6 October, the focus was to be on identification of potential drivers of change that could dampen UTP's Transformational Goals, identification of push and pull factors and sharing of strategic planning focus with participants. As it turned out, both exercises did not actually apply scenario planning tools but instead dwelt on the demands of strategic planning. Here was the case where the aims were of course mixed up between scenario planning and strategic planning. It was discovered that the tools for one could easily be adapted for the other. On the other hand a problem like this should not have happened in the



first place. For the facilitator at least, the choice would have to be determined by the host, UTP. What was it that they had really wanted? For all intents and purposes UTP had no wish for a plain scenario building activity at all. It turned out all they had wanted was to be informed of the ways and means to enabled UTP to gain the Research University (RU) status within the shortest possible time. This outcome seemed to become the more important one then.

Clearly from the above discussion, within the UTP there had existed a difference of opinion over approaches. What the leadership had favoured was different from those in the majority who had wanted a scenario planning to be conducted instead. As observed from the participation among the workshop attendees during the two sessions mentioned above, it was apparent that not many were aware of the difference between scenario planning and strategic planning. From the facilitator's point of view however, UTP had a clear goal right from the start but they were indeed not too sure of the methods to be applied to get to where it had wanted to go. There was also an absence of an articulation of a vision let alone a shorter one like the need to meet the deadline for achieving an RU status. As for the other deadlines like the NEM, 10 MP and the Vision 2020, the UTP would rather wait and not rush along. For the moment UTP has not moved on actualising a transformation process as yet.

## **MPM Transformation Process**

To a certain extent the journey followed by the Malaysian Examinations Council (MPM) matched the experience encountered by the USM. They had first adopted the need for a scenario planning exercise to begin their institutional transformation. It was also fortunate for them that the USM was also brought in at an early stage to assist them in this. The collaboration even continued through to the visioning stages.

MPM was established in 1980 as a coordinating body to evolve syllabus for teaching modules, manage examinations and grant certificates to candidates who completed the necessary standards in examinations conducted by them. Scenario planning was adopted as a means to create possible futures for the body to visualize a future up to the year 2025. These scenarios would then be selected as the basis for future strategy for the MPM. To realise this objective a series of workshops were held: in May, July and November, 2007. Three alternative scenarios were created: flexi-assessment, diversified services provider and MPM Corporate.

This was followed up in August, 2010 by the MPM convening a Visioning Workshop session which in reality turned out to be an opportunity to present the three scenarios to a wider audience and hence facilitating a 'buy-in' as well as revisiting the scenarios and going on to determine a preferred scenario. The various stages can be presented in a Table format as follows:

Table 4.  
*MPM Transformation Process 2007 – 2010*

MAY 2007 INTRODUCTION TO SCENARIO PLANNING	JULY 2007 DETERMINING ALTERNATIVE SCENARIOS 2025	NOVEMBER 2007 STRATEGISING	AUGUST 2010 TOWARDS TRANSFORMATION FOR EXCELLENCE
-Art of the Long View -Emerging Issues Analysis -Understanding key drivers of change -STEEP	-Futures Triangle and Futures Wheel -Story boarding and story writing -Three alternative scenarios: Flexi-assessment Diversified Services Provider Corporate MPM	-Visioning and missioning -action strategies	-Explaining the Future -Is MPM under threat? -MPM and Resources for the new economy -Assessment in the Future

What transpired subsequently was that MPM began to advance towards a Strategic Planning exercise and that this would mean the implementation of the decisions made on the preferred scenario, now named MPM INC. This will also include all the known stakeholders and the expanded areas for further consideration such as action plans, strategies and resources allocation. In the overall transformation journey for MPM, it can be observed that MPM is seen to be less concerned about meeting target dates or milestones. It is not pushed like the other three institutions as discussed above. Perhaps the reason could be due to the fact that the MPM has had no competitor active enough to give it a real challenge. Competition would have changed the game for the MPM. For the time being however, the transformation process has been brought back into the internal domain of the MPM for more internal inputs to be put in. It would have been more fruitful had the MPM, struck while the iron was hot and proceeded to transform itself gradually instead of waiting for the right time to do so. This is where the leadership could be expected to show the way and with the force of vision and mission, push the agenda of transformation forward.

### **MIGHT Transformation Process**

MIGHT decided to undertake in August 2010, an exercise that would not only transform the institution but also the critical sectors of technology and innovation. Assisted by the success of foresight technology methods applied in such countries as Japan, Korea, Singapore and Europe in the 70s, it opted for a Focus Group, organized a Scenario Building Workshop and a Vision Building Workshop in the months of August and September 2010 in Putrajaya.

To MIGHT, the objectives of the Workshops were to "systematically identify and assess potential innovations in Science, Technology and Innovations with high importance in the next ten years; to identify technology sectors and sectoral key technologies; identify specific support, policy measures and funding priorities and finally to identify plausible scenarios and its implications".

For the scenario building phase it applied a four-step method:

Table 5.  
*Scenario Building – 4 Steps Method*

STEP ONE IMPACT UNCERTAINTY ANALYSIS	STEP TWO CROSS IMPACT ANALYSIS	STEP THREE IDENTIFYING UNCERTAINTY AXIS	STEP FOUR SCENARIO WRITING AND DEVELOPMENT
-Ranking of Drivers	-Interrelationship between drivers	-Scenario selection	-Writing a narrative

This approach differed from the method utilized by the USM and also the MPM in their scenario building workshops. In the latter case a five-step method was applied: mapping the drivers, anticipating the changes, deepening the issues and trends, creating the scenarios and transforming the institution. The former is believed to be more useful in that MIGHT being a technology-based institution would like to take on methods that have been tried in the Technology Foresight arena. The scenario building workshop ended with four scenarios representing business as usual, ideal, in-between and doomsday. Process-wise the group was able to identify the main drivers that impacted upon the country and from the list the various trends and issues were refined and later used as inputs for the scenarios. Finally four categories of trends and their respective drivers were identified: Socio-political, Technology, Economy and the Environment.

Upon the completion of the scenario building workshop, MIGHT embarked upon a vision building exercise for the discussion and determination of the main products and services that were later categorized into the key technology sectors. The purpose is to support the vision and goals agreed by the workshop participants. In this instance, MIGHT benefitted from the assistance rendered by consultants brought in for the session.

MIGHT's transformation journey had just begun. The process will be filtered by the stakeholders before its results could be presented to the highest levels of Government for its final approval.

## Conclusion

The foregoing had put into perspective the different aims and goals pursued by several public institutions in Malaysia in their quest for transformation and the choice and application of various scenario planning and strategic planning models to enable them to embrace change. From an analysis of the experiences of the different institutions, we could draw several conclusions. Firstly all the four institutions ranging from higher education institutions such as the USM to a technology-based body like MIGHT have had some familiarity with the concept of scenario planning and strategic planning. In the case of the UTP what they had in mind was to go strictly for a strategic planning exercise. But as it turned out by combining the two approaches, scenario planning and strategic planning, UTP had indirectly discovered their strategic action plan had benefitted from the former. For the MPM however, their learning experience was that they were able to appreciate how much easier it would become for them to initiate a strategic action at some point in the future now that they have got a preferred

scenario in place. Ian Wilson referred to this fact in his paper, 'From Scenario Thinking to Strategic Action' where he said the scenario building exercises helped to clarify the future situation so that decisions could be made on the different situations as specified by the scenarios. In the said article, Wilson was also explaining how the issue of implementation could also prevent change from taking place even after the picture of the future had been determined. In the case of the USM, Wilson's observation could not be verified for the reasons as discussed above. USM's transformation is more or less completed as it had already positioned itself into a change mode well before the 2013 cut-off point for the APEX process to be evaluated. This will not be the case with the MPM or MIGHT. While change remained a target for the future of these two institutions the leadership would rather wait for a little while longer until they could be certain of the wishes of the stakeholders' expectations. The UTP on the other hand would be happy if it were to gain the Research University (RU) status soon.

In general the use of the mapping of the future methods including foresight techniques and particularly scenario planning methods, has contributed to the ability of the four public institutions to prepare them for taking up strategic actions in the near term. In due course they would have acquired the skills and the capacity to proceed with transformation with ease. A general prerequisite must be a vision-centred leadership that is both transformational and charismatic in style, ready to take on the challenges to lead in a future environment of constant change.

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## References

- Commonwealth Partnership for Technology Management (CPTM). (1998). *Limitless Opportunities through Smart Partnership*. London: CPTM Hub.
- Drinkwater, Michael. (2003). *Scenario Development as a Strategic Planning Tool*. New York: CAREAngola.
- Dzulkifli, Abdul Razak. (2009). *APEX University, Vice Chancellor Annual Address Series*. Penang, Penerbit: Universiti Sains Malaysia.
- Dzulkifli, Abdul Razak. (2010). "Mapping the future: An 'inclusive' approach to internationalization". *Internationalization of European Higher Education, Issue 1*. Berlin, Germany: RAABE Imprint.
- Malaysian Examinations Council (MPM). (2010). *Exploring Future Scenarios for the Malaysian Examinations Council*, Kuala Lumpur, Malaysian Examinations Council.
- Norris, Donald M, & James L. Morrison. (1997). *Using the Futures Program as a Tool For Transformation*. San Francisco: Jossey-Bass.

- Universiti Sains Malaysia (USM). (2007). *Constructing Future Higher Education Scenarios: Insights from Universiti Sains Malaysia*. Penang, Penerbit: Universiti Sains Malaysia.
- Universiti Sains Malaysia (USM). (2008). *Transforming Higher Education for a Sustainable Tomorrow, The APEX University*. Penang, Penerbit: Universiti Sains Malaysia.

