UNIVERSITI KEBANGSAAN MALAYSIA (UKM)

An exclusive report to be distributed with ***THE INDEPENDENT***

Transcription of the interview with:
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Vice-Chancellor

WORLD REPORT (WR): As an introduction, please discuss the effects of inflation on Malaysian salaries.

DATO' DR HAPSAH: Salaries have not stayed at par with the cost of living. In order to make vision 2020 a reality, we will swiftly have to become a higher income country. Malaysia seems to be quite stagnant when compared to Singapore, Taiwan and Korea, which have all moved on. However, one must not look just at salaries but rather income from other activities. R&D and a turn of the economy towards high value added sectors are what will drive the Malaysian economy forwards, and eventually translate into higher salaries.

WR: How has the government been handling the transition into a high-tech economy?

DATO' DR HAPSAH: Malaysia has already liberalised many parts of its economy and removed subsidies. This will inject competition and better quality. Here the government deserves a round of applause.

Of course our role as a university is to see how we can add value to the country's various outputs, products and processes. Our job and our main core

function is knowledge. We are supposed to produce new knowledge or adapt and develop existing knowledge. What we do with that knowledge is the next question. It is not just about producing and disseminating it through the education of our students, but also turning it into good policies, wealth generation, societal development and advancing the frontier of our understanding. We have been quite good at producing knowledge, publishing it and getting promoted for it. Modern-day society, though, is a demanding one and has prompted higher education to be more accountable to tax payers.

At UKM we have invented the 'tree of knowledge and innovation' to depict our role in producing knowledge and innovation for wealth generation, job creation and social wellbeing, thus helping the country make the quantum leap to an innovation economy and society.

Continuing with the metaphor, our tree should be one that has strong roots, fruits all year-round and has a sizeable and strong trunk. The academic faculty of the disciplines at UKM are the creative units or energy of the university. We have many people developing their expertise in many disciplines; they are like roots in the ground. My job is to make sure nutrients are brought to the roots to enable them to grow into stronger and bigger roots. The UKM tree has eight big roots that are sustained by the smaller roots. These eight big roots are the UKM niche areas, identified as the strongest research thrusts of the university. From these eight areas flow knowledge which is taken up to the tree trunk.

The trunk is the site of innovation. With creativity knowledge is turned into many forms – technology, new processes, products, systems, models and so on which can be applied through UKM's interaction with its external stakeholders. They range from government agencies to industry, other academic institutions, investors, civil society and other non-governmental organisations.

The application is seen in the branches arising from the trunk. The wealth generation branch, bears fruits such as start-ups, or joint venture companies that we form to commercialise our research outputs, and our licensing activities.

The ‘public goods’ branch bear fruits in the realm of public and community service, such as policy formulation, cultural, economic and social projects.

WR: Would ethics be in that branch?

DATO’ DR HAPSAH: Ethics are in all the branches. Innovation, in our minds, is strictly tied with ethics. We believe our tree is very research-driven, deriving knowledge from research at the roots. The research that drives community service is in the form of our researchers working with community interest groups and even private sector organisations to improve the lives of common people. For example, our solar energy group develops solar panels, which they install in remote areas to supply power. In fishing communities, the energy is used to dry fish. It is not just community service per se, but also a way of seeing how our research is applied in the real world. In a recreational park outside our campus we are setting up a whole range of demonstrator applications based on our research. We intend to develop that whole area into a knowledge park, where children will be able to play and learn science at the same time. This is the ethics in public goods. We may not make money, but it is a chance for us to study how our innovation and invention works in the community, apart from giving our government ideas about policies.

The other branch is of course our educational services, seen in the undergraduate and postgraduate programmes as well as continuing education programmes to support lifelong learning and skills training, and other short courses.

The fourth branch, which is very important, is what we call ‘knowledge’. We hope that with quality research we will be able to advance the frontiers of knowledge and to consistently challenge and question current assumptions.

All four branches are important to move Malaysia up as an innovation economy. This is where the trunk plays a crucial role.

WR: How do you intend to change this innovation into wealth as the final product?

DATO' DR HAPSAH: We are working very closely with our partner, the Stevens Institute of Technology in New Jersey, US. They are ranked third by *Forbes* magazine in terms of returns on investment for their research and for bringing their products to the market. They have been working with us for more than two years now and both sides are confident with the strong and healthy bilateral partnership that has been developed. Building economic enterprises as a culture is very important to us. Our culture has always been 'I do my research, I publish, and I get promoted.' Today it is no longer enough. The Stevens Institute has years of experience in turning research into tangible final products that are marketable. We can leverage on their expertise in launching start-ups, adding value to the small and medium sized enterprises (SME's) that are already established and training programmes in professional entrepreneurship.

We believe this is a good model for us to work with. We are examining programmes at the Master's level, for example in innovation management and technology management, which we can conduct jointly. Such programmes are not just for university staff, post-graduate and undergraduate students, but also for those in government, industry, enterprises etc.

We have already established a holding company called UKM Technology private limited. Its role is to nurture the start-ups, provide technology assessments and pitch to investors. The university invests in the start-ups to prove to the investment community our seriousness in this matter. We have attracted the Malaysian Technology Development Corporation (MTDC) and the Multimedia Corporation (MDec), too, in our start-ups. One of our companies has been given the Bionexus status.

WR: It is very important for universities to attract a private company's presence into their circuits. How is UKM making its offerings attractive to private investors?

DATO' DR HAPSAH: Since inception, we have experienced a measure of success in attracting private investors. Early positive results are especially promising because they motivate others to take a risk and invest. We commit university money to signal our confidence in the venture. We are very stringent with the selection of products for commercialisation. Despite that, even if we fail, we will tolerate the failure and regard it as an opportunity to learn. Just as the country is developing, its universities are moving on too. At UKM, we are in tune with the government's agenda.

WR: Are you 'producing' the right graduates that the labour market will need in the next five years?

DATO' DR HAPSAH: We are constantly assessing and amending our programmes in collaboration with industry partners, to ensure relevance. Industrial training is a way to match market demands but it is not enough. At the moment we are looking at a four-year programme where 'entrepreneurial training' is the focus in the fourth year. This will be the practical side of every student's studies at UKM. It is an expansion of the current programme conducted at the Faculty of Economics and Business in collaboration with SMECORP and the SME Bank. In this programme students work with Small and Medium sized Enterprises over a period about of six weeks, analysing how they can add value to particular SME. The students then present their findings and recommendations to SME Bank and SMECORP for approval. If their proposal is accepted they will receive financing and the right to implement their research. We believe that if students can do this well they will not have to depend on salaried jobs, but rather to create their own. A variant of the programme is the opportunity for students to submit proposals for opening their own businesses on campus.

WR: One issue we are looking at very closely is quality. How are you ensuring that your graduates get high quality, sustainable education?

DATO' DR HAPSAH: We employ two systems to guarantee the quality of education that we offer—the internal and the external quality assurance

schemes. The MQA is the external agency that provides us with guides to make sure that we stay on track in delivering on our commitments to students. More important is our own internal system of checks or quality assurance. Every faculty has somebody in charge of quality assurance to make sure the processes go according to the procedures we have laid out. For example, when developing new programmes we must make sure that we conduct market surveys to establish the potential employability of our would-be graduates. Data and evidence are of supreme importance. We utilise them in our quality cycle. We analyse that data obtained form all sources to establish our strengths and weaknesses, and identify areas that need improvement. Such cycles of internal audit are done in all faculties.

We have also instituted student performance reports, examination results trend reports, professor and academic staff assessments, etc. There are additional reports by external examiners, which I read personally and then instruct the appropriate departments to act upon the recommendations. A copy of the report also goes to the academic audit unit, which will conduct a follow-up audit after six months to see if the areas of concern have been addressed and corrected. I am quite strict about keeping checks internally. Ultimately, everybody must feel that they have a very important role to ensure that standards are kept and continuously improved. We recognise those who are very innovative. We have introduced an innovation award at the unit level where even the smallest changes and improvements are recognised and taken into consideration for the reward. At the end of the year we give a university innovation award. I believe that recognition is very important to motivate people to maintain and take quality to a higher level.

WR: As a final question, please discuss the government's stance towards higher education. In your opinion, what issues does the government need to address in order to improve higher education in the country?

DATO' DR HAPSAH: The government has to approach higher education carefully as there are different types of educational institutions with different purposes. Generally speaking, we need research universities to focus on

innovation within the economy and help achieve government policies by ‘producing’ the right high-calibre graduates. Private universities, by bringing in foreign students, are helping to generate revenue for the country and must do so within a quality framework. In my opinion, the government must indicate the human resources requirement to meet the needs of the new economy and develop targets for our sector. We should not be approving more universities when we may actually need polytechnics, for instance. We should also look at ways to support life long learning, an essential requirement of the innovation economy.

As far as we are concerned, we must produce graduates with an academic entrepreneurial profile who can enter the economy at a high level to add value to it. Ninety percent of our graduates should be able to be part of the high technology sector. They should be able to continue with research and postgraduate education later. It is not solely about problem solving and being innovative, but about producing people to help at higher level of innovation. We want to be at the higher end of the value chain where research and development is paramount. Areas such as biotech, the pharmaceuticals industry and other high-technology areas are our targets. This is where we believe our people will excel. Our students will be, above all, innovators moving the country forwards.