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INNOVATION MATTERS

BY DR VIRAJ PERERA

How well are we doing with patents?

The Malaysian innovation ecosystem has been developed and supported since the mid-1990s. Top-down emphasis has been demonstrated, many support systems have been established and a great deal of resources have been expended.

But how well have we done in protecting the national intellectual capital in our innovation ecosystem? In my previous article (*The Edge* Issue 1218, June 11), I mentioned that it is undebatable that a national framework for intellectual property (IP) development and protection forms the backbone of an innovation-driven economy, and that the scenario in Malaysia has been less than optimistic on this front. Let's have a closer look by diving into the scenario of patenting Malaysian IP rights mainly by academia, research institutes and industry.

Local universities are generally categorised as public and private institutions. Public universities in Malaysia are funded by the government and governed as self-managed institutions while private universities include locally established universities and campuses of foreign universities. There are 20 public universities, 48 private universities (including the campuses of foreign universities), 33 polytechnics and 19 university colleges. Among the aforementioned higher education institutions, public universities can be regarded as the biggest filers of patents, followed by private universities.

There are about 15 research institutes in the country. The independent ones include the Forest Research Institute Malaysia (FRIM), the Institute for Medical Research (IMR), the Malaysian Social Research Institute and the National Hydraulic Research Institute of Malaysia. Public research institutes include the Mines Research Institute, the Palm Oil Research Institute of Malaysia (Porim) and the Malaysian Agricultural Research and Development Institute (MARDI). The Fisheries Research Institute (FRI), the Malaysian Institute of Microelectronic Systems (Mimos) and Standards and Industrial Research Institute of Malaysia (SIRIM) are other notable organisations conducting research in the country.

In the industry scenario, small and medium enterprises (SMEs) are the largest filers of patents. As per the Economic Census 2016 by SME Corp Malaysia, these businesses are considered the backbone of the economy.

The data show that 907,065 establishments in Malaysia are SMEs, constituting some 98.5% of all businesses in the country. Of these SMEs, micro-enterprises make up 76.5% (five employees or less), small businesses 21.2% and medium enterprises 2.3%.

Women-owned businesses constitute 20.6% of all SMEs in the country. In terms of sector classification, 89.2% of all SMEs are in the services sector, 5.3% are in manufacturing, 4.3% in construction, 1.1% in agriculture and 0.1% in mining and quarrying.

As can be seen in Figure 1, the number of patent applications filed in Malaysia did not significantly increase between 2005 and 2014. Also, there were significantly more foreign applicants during this period.

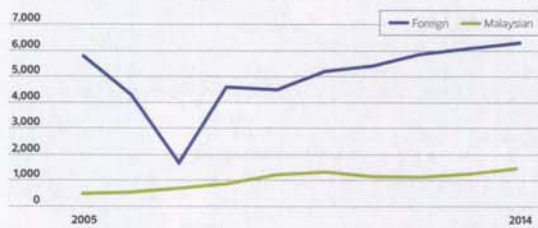
A look at the number of patent applications shows that 83% of the patents filed in the country from 2005 to 2014 were by foreign inventors or entities while only 17% were owned by Malaysians.

Figure 2 shows the patents granted in Malaysia (approved for enforcement of patent rights) by the Intellectual Property Corporation of Malaysia (MyIPO) from 2005 to 2014. The majority of the approved patents were by foreigners. This would be in line with the number of applications received from foreign applicants as opposed to those received from local applicants.

A look at the number of patents granted in Malaysia shows that a staggering 93% of all patents granted between 2005 and 2014 were owned by foreign inventors or entities while only 7% were owned by Malaysians. This means that 93% of our intellectual capital in terms of enforceable patent rights is owned by foreigners.

Figure 1: National intellectual capital in terms of patent filings

Malaysian versus foreign patent applications filed in the country



Data to formulate the graph obtained from statistics available on the MyIPO website

Malaysian versus foreign patent applications filed

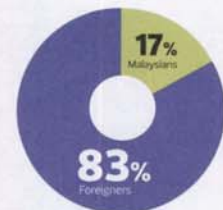
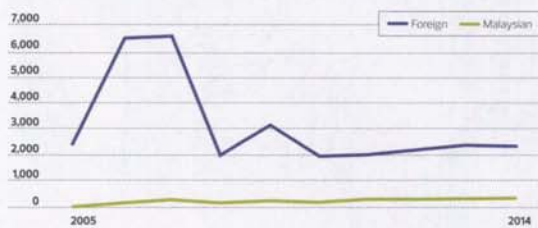


Figure 2: National intellectual capital in terms of patent grants

Malaysian versus foreign patent grants in the country



Data to formulate the graph obtained from statistics available on the MyIPO website

Patents granted to Malaysians versus foreigners



BENCHMARKING AGAINST SOUTH KOREA

Among Asian countries, South Korea is a good choice to benchmark IP regimes and statistics against as it has emerged as a strong knowledge-based economy due to strategic planning and top-down national support over many decades of uplifting the country into one of the most innovative nations in the world.

An analysis of the data obtained from the South Korean Intellectual Property Office's (KIPO) website reveals that the scenario there is pretty much the opposite of the one in Malaysia. From 2005 to 2014, South Korea's intellectual capital in terms of patent applications was dominated by local applicants.

A look at the patent applications shows that 78% of all patents filed in the country during the period were owned by South Koreans while only 22% were owned by foreign inventors or entities.

The data raises a few alarming questions and may reveal some important steps to be undertaken by Malaysia to do better at protecting the national intellectual capital in terms of patents. These issues need to be identified and pondered upon, and sensible strategies should be employed to underpin our drive towards the formation of a Malaysian knowledge-based economy.

WHAT CAN BE DONE?

A few sensible steps can be deployed to correct the situation. As a nation that has embraced the task of driving itself towards the formation of a knowledge-based economy, the following are some initiatives that the Malaysian government could embark on.

1. Subsidised fees for patent protection

Most SMEs, universities and research institutes do not file patents due to the very high expenditure involved. The government could potentially introduce an IP protection fund to help support the protection of IP in terms of patent filings.

In IP monetisation, the quantity or volume is important, at least initially. Hence, knowledge crea-

tors must be encouraged to protect their IPs with a subsidised cost structure so that patent filings can become more affordable. The South Korean government has followed this approach to create volume and it recently switched to working on the quality of patents applied for and granted in the country.

An IP protection fund can either fully or partially subsidise patent costs. The custodian of the fund must have in-house expertise to accept and assess applications, based on both IP and market potential. The government could work on a plough-back mechanism to recover some of the funds by successful commercialisation of the protected IP by their owners. Thus, a sustainable model can be developed in the long run.

2. Tax credits

The issuance of tax credits for revenue brought in by commercialising a company's intellectual property rights could be a good mechanism to encourage industry players, especially SMEs, to capitalise on their IP rights.

A regime called Patent Box has been used by several governments to entice companies to commercialise their patentable R&D outputs. The Patent Box — also known as an IP regime, innovation box or IP box — is a special tax regime used to incentivise R&D by taxing patent revenues differently from other commercial revenues. Countries that have adopted such a scheme include Belgium, Cyprus, France, Hungary, Ireland, Luxembourg, the Netherlands, Spain and the UK.

Malaysia should not lag behind other countries in terms of protecting its intellectual capital, not only in terms of patent filings but also in the many other forms of protection used to safeguard IP rights. We can either choose to continue ignoring this reality or start working on it. Malaysia should not lose out on its intellectual capital.

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