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THROWING OUT THE BOX ROBEST YONG

Observation is the key to invention and as Robest Yong reiterates in the motivational talks he gives – "The simplest solutions are the best."

An early example of this occurred when the young Robest went fishing with his friends in his hometown of Nibong Tebal, Penang. He realised that their rods couldn't reach the deeper areas where fish were plenty. A longer rod would be the obvious solution but they couldn't carry them while riding their bikes. His solution – make a longer rod by adding an attachment that slotted into the top of the rod. The new rod was 8 feet long and could be dismantled to carry on their bicycles.

A Local Surprise

Years later, Robest would see his invention sold in shops. It was never patented so he did not enjoy any pecuniary reward, but it became a source of pride and joy because he had invented a saleable item when he was just twelve years old.

Intelligent and precocious, Robest chose a field of tertiary study that would both direct and evolve his creativity – engineering. "It's a field" he says, "that is very innovative but also realistic. With architecture for example, there is a huge element of subjectivity. But in engineering, there is none. Something either works or it doesn't". Robest eventually became an engineer with Lam Chuan Engineering in Penang, where as a technician, he specialised in maintaining and repairing printing machines.

His invention of the Polyclone Instant Rubber Stamp Machine gave a huge boost to Robest's career. Compact and portable, it produces a rubber stamp for any image or text within five minutes, without requiring darkroom equipment or chemicals. Stationery shops are currently providing this service for RM25 per stamp at a cost of only RM1.50 each, using a machine bought for only RM4,000.

"There is a perception among Malaysians that inventors die poor and hungry. That there is no future for them – but I tell the truth to change their minds – I make millions from inventing." Robest is currently an Innovation Ambassador for the Malaysian Agency for Innovation (AIM), a statutory body set up to drive the country's economy with creativity and innovation.

AIM's aim is the creation of more jobs, the success of new innovator entrepreneurs and the evolution of Malaysian companies into major global players.

AIM's function is pertinent, because as Robest says, "Malaysians have the substance but not the passion" to be innovators. "During my tenure with Lam Chuan, I frequently travelled to Japan for work. There, I experienced a society of innovation." According to him, creativity and innovation in Japan is a collective responsibility and everyone has the opportunity to present their ideas.

He illustrates this with an analogy; say a janitor in an Innovation Agency in Tokyo comes up with an ingenious way of constructing a chair with only three legs instead of four – she would receive praise and patent payment from the agency.

However in a Malaysian context, the janitor would have experienced a lot of problems trying to get recognised. Malaysians might question if she has the requisite knowledge and experience to be an inventor. They might also accuse her of copying some foreign innovation – which is exactly what Robest faced when he introduced the Polyclone machine.

He was suspected of copying a foreign invention because something as simple as that must have already been invented. Robest was innovating in a local climate not used to innovation. This opinion that nothing truly original can come from Malaysia perpetuates a vicious cycle in which no one is inspired and nothing gets invented.

Top: *Robest and one of his inventions – Synchronised Bathroom Locks for bathrooms with dual doors. The invention allows both doors to lock and unlock at the same time.*

Above: *Invented by Robest, the Polyclone Instant Rubber Stamp Machine won a Gold Medal at the London International Invention Fair, UK and is marketed worldwide.*

Necessity Gives Birth

"I have a ten year old son, and I encourage him to invent," says Robest. "He makes his own toys and every kid should do that." If a child is encouraged to create, even on a small scale – if all he makes is a paper aeroplane, he learns the physics of flight and the importance of material in aeronautics. "Kids don't always need expensive toys," Robest adds.

Malaysia was once the biggest centre for drug trafficking in Southeast Asia, behind credit-card cloning. When these became less popular, fake DVDs and Blu-Ray discs took their place – so many at such good quality that they are still being exported to China. One can argue that Malaysians achieved all these by being innovative.

This illustrates what Robest means by "Substance" – the capacity for creativity. By "Passion", he means the will to go in the correct direction – for example, the gangster who grew up to head a gang of illegal DVD sellers could have become a creative innovator in a more respectable field.

By tapping into the fecund minds of young Malaysians, AIM hopes to mould and encourage their creativity. AIM is currently commercialising innovations by universities, from both students and professors. They have selected 42 projects estimated to generate RM1billion in revenue, with each open to public collaboration. But according to Robest, it is a difficult task but achievable. Because once you get Malayians to be creative and inventive, turning them into inventors is a whole new ballgame.

"A lot of 'Innovation Workshops' today are just arts and crafts lessons. They get young attendees to create pretty things that are of little use, like paper flowers or wooden boats." says Robest. But what they should really do is teach that "Necessity is the mother of all invention". If people won't need what you're inventing, they won't care for and won't pay for it.

Aspiring inventors have a tendency to come up with ideas that only they appreciate and then complain about no one caring and not making money. On the other hand, successful inventors always have

Another innovation by Robest is the Green Whizzard. It is a formulation of Probiotic Enzymes that helps to break down the nutrients in soil for easier absorption.

their eyes peeled for commercial opportunities, like Robest's Polyclone that filled a demand for quick rubber stamp creation.

"It's important to think without a box" says Robest. Conventional wisdom holds one to think "outside" the box, but Robest insists there should be no box at all – just the frame of mind required to seize opportunities.

According to Robest, to be a successful inventor, you must observe the needs of human beings with an open mind and answer those needs with innovation and invention. Back in the 1980s for example, Robest used to be a huge fan of "Ayam Serama" – small, popular pet chickens. However, their eggs were tiny and fragile, making the breeding process considerably difficult – enthusiasts created artificial incubators for these eggs. However, their home-made incubators were really ugly and sometimes unreliable.

Robest saw an opportunity. He wanted to create a proper egg incubator but could not think of a design that would be practical, yet aesthetically appealing. One day, while shopping at a supermarket, he saw a dish-drying tray that looked very nice – Robest modeled the incubator after the tray's design and sold each unit for RM400. Two separate things – a dish drying tray and an incubator – came together in the innovation process.

He christened his latest invention, a disposable mini sauce plate, the "POPaWare". The POPaware came about from observing how fast food restaurants serve their sauces. Tomato and chilli sauce usually come from dispensers, squeezed out onto small plastic sauce plates that tend to stick together in a stack. When a diner picks one, he would inevitably end up with more. As he parts the plates, he will contaminate the unused ones.

"The simplest solutions are often the best" says Robest. "I could have come up with a complex vacuum machine to suck and deliver individual plates, but my selection is more practical. I created sauce plates that are flat."

To fill with sauce, you just have to depress the centre and the plate becomes concave. When flat, the sauce plates do not stick together, as a flat surface reduces static electricity friction.

"The idea for its design came from traditional Chinese paper lanterns" added Robest.

"The simplest solutions are the best" says Robest Yong, instead of coming up with a complicated suction device to prevent 2 mini saucers to be dispended at one go, an inspiration from the traditional Chinese lantern brought about the idea for his latest invention the POPaWare.

Innonation!

Robest really hopes for Malaysia to become a nation of innovators. He spends a lot of time chatting

Robest and Stephen Hawking at a banquet in Kuala Lumpur in 1994. Robest had earlier attended a lecture by Hawking called "Is Physics Predictable?"

with aspiring inventors, saying that he wishes to "Inspire before I expire."

Robest also gives talks at schools, universities, companies and government agencies. He was recently invited to the Royal Malaysian Naval Base in Lumut to give an inspirational speech, and will be making a repeat appearance on the 25th of May at their headquarters. Robest also judges many Malaysian inventor competitions such as ITEX, MTE, PECIPTA and the National Innovation Award (which has an RM50,000 cash prize).

He also conducts creative workshops for children and teenagers, partly organised by the Ministry of Science (MOSTI) and various NGOs, and was the first non-Muslim to conduct workshops at a Mosque in Damansara for the benefit of Muslim children in the community.

"Malaysians are creative by nature but they have to put in more effort. We are like a nation of Usain Bolts who are not interested in running. If everyone exercised and improved their creativity, we could be a juggernaut of innovation".

With such passion, drive and insight, perhaps Robest's vision of an "Inno-nation" (Innovation Nation) will be realised very soon. ING