



Tech, women and nation-building

Technology is levelling the playing field for women-led start-ups. But although women are acknowledged as a formidable economic force and are crucial to nation-building, there is still more work to be done in improving access to financing and capacity building.

BY SREEREMA BANOO

Soon after she started her career in the manufacturing industry, Nuraizah Shamsul Baharin knew that she would one day start her own business. “I’d always wanted to do something that was my own. My friends and I often talked about how we should be business owners instead of working at the factory, so the six of us made a pact to do that someday. Three of us did that — including myself — but even then, I was so worried. Should I or should I not? That was when one of my friends’ dad gave me a good piece of advice: thinking about things will not move it forward, you have to actually take that step.”

She began her entrepreneurial journey in 2006, when an opportunity arose to acquire a technology company that was about to cease operations. Steadily, she grew the business into a company that was 17 times the net book value of the initial capital. In April 2011, she turned that business into Madcat World and has not looked back since.

Over the years, the company, which builds mobile apps, has received many accolades for its products and is today one of the leading providers of Islamic content and applications.

An electrical engineer by training, Nuraizah says technology has given her the opportunity to be a business owner. “My business exists because of technology. You are not seen based on your gender or your race or even your nationality. You are as good as your products — that is the true value that speaks on your behalf.”

Lim Li Sze, co-founder of Medical Innovation Ventures (Mediven), agrees. “It does not matter who the player is, but which product provides a better solution and is easier to use,” she adds. Lim, who has a doctorate in genetics, started the diagnostics company with Ariff Ismail — a former colleague at Universiti Sains Malaysia (USM) — back in 2012.

The goal was to improve diagnostics for tropical infectious diseases using the wealth of genomic information being generated on pathogens from R&D work to create diagnostic tools that aid

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in the early and fast detection of infectious diseases.

Through their former jobs as officers in charge of commercialising research at USM, Lim and Ariff had knowledge of available research as well as a network of scientists and business professionals to tap into. “We had a good idea to help people and saw a good opportunity. We started Mediven to offer test kits that detect DNA/RNA of infecting bacteria or viruses in the human body,” says Lim, who is the company’s operations director.

At the onset of the Covid-19 pandemic, the company joined the race in early 2020 to come up with one of the earliest tests for the virus. “Currently, we are supplying Covid-19 real-time PCR (polymerase chain reaction) and antigen test kits to the hospitals and clinics in Malaysia, as well as the 20-odd countries we are in,” she says. The company, she adds, recently also started marketing Covid-19 self-test kits.

Nuraizah’s and Lim’s stories are just two of the many illustrating technology’s impact on an entrepreneur’s journey. Malaysia Digital Economy Corporation (MDEC), which was set up to accelerate the growth of the country’s digital economy, says besides more women owning and operating businesses, it has also noticed the increasing participation of women entrepreneurs in artificial intelligence, big data analytics and the Internet of Things, with their businesses in either e-commerce or software.

“We are observing more female-focused companies growing in the tech industry, and they are scaling up fast. We are also seeing more women breaking into the fintech sector and technologies like drone services

and healthtech,” says MDEC CEO Surina Shukri.

MDEC’s initiatives are attracting more women participants. Four out of five of the participants in its Perkhidmatan eDagang Setempat (PeDAS) programme — which assists rural entrepreneurs in marketing their products on e-commerce platforms through facilities made available at

32 rural internet centres nationwide — are women.

Women also make up 63% and 61% respectively of MDEC’s eUsahawan Muda and eUsahawan Micro programmes. More than half of the participants in the Global Online Workforce (GLOW Penjana) programme, which empowers Malaysians to earn income online, are women. “Over the past five years, MDEC has trained more than 127,000 women entrepreneurs through eUsahawan programmes,” Surina says, adding that reported sales from these entrepreneurs totalled RM349 million over the same period.

Changing view of women at work

One of the ways technology has helped is by making it easier to network, seek assistance and mentorship, says Surina. During the Covid-19 pandemic, technology offered a competitive advantage to start-ups and small businesses. “In the post-Covid-19 world, technology will also provide extra advantages to those who have already adopted tech in their business,” says Nuraizah.

In Mediven’s case, the digital economy and video conferencing tools have given the chance for the company to win tenders in various countries despite the various Movement Control Orders (MCOs), Lim discloses. She adds that digital technology is helping women manage their time and multitask, especially in Asian communities, where a woman’s place is still considered to be in the home.

Technology aside, Piktochart co-founder Goh Ai Ching says one should not discount the impact of changing societal norms and expectations concerning women, which has helped them progress in their careers. Goh, who founded Piktochart (a web app that helps users create infographics, presentations, reports and banners) with her husband Andrea Zaggia in 2011, shares her own family history to reiterate her point.

“My mum was always making things; the clothes she made for us were so well made and looked so good that some boutiques in Penang back then would buy her designs. I remember asking her why she didn’t pursue a career of her own and her response was, ‘I have four children. How am I going to do that?’ It’s not been a question for women of my age and generation, but it was an issue for my mother and those in her generation.

“So, it’s societal change that’s made the difference, perhaps more so than technology, although technology is one of the things that have helped accelerate the shift in how society views women in careers and professions,” she says.

Although women-led start-ups have made headway in their respective industries, challenges exist, in

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The Boolean Babes (from left):
Ellisa, Fedelia, Azlinda and Paige

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Goh



particular access to funding opportunities. Crunchbase data from the end of last year showed that not only was there a retreat in total

funding for female-led start-ups globally, “the proportion of dollars to female-only founders also declined, to 2.3% compared to 2.8% in 2019”.

What is equally disconcerting — as an article in *Harvard Business Review* earlier this year pointed out — is that this 2.8% figure, while measly, was an all-time high.

The lack of gender equality in funding start-ups — fewer than 10% of decision-makers at venture capital (VC) firms are women, and most firms do not have a single female partner — might explain some of the funding obstacles women entrepreneurs face.

To this end, start-up development programmes have been a plus for women entrepreneurs, especially those in the tech fields. Piktochart, for instance, was part of global venture capital firm SOSV’s Chinaccelerator, and more recently, MADCash (from Madcat World) was selected to join MaGIC’s fifth cohort of its global accelerator programme.

Women helping women

Although the deck appears stacked against women entrepreneurs when it comes to funding, there are some bright spots. Surina says MDEC’s partnership with Cocon Capital for its Female Founders Mentoring Hours is an effort to boost female founders’ access to capital and capacity building. She adds that two of MDEC’s VC partners in its investor matching initiative, namely Vynn Capital and Inovasi Ventures (a female-founded VC), target female-focused businesses and economics.

Nuraizah’s latest project, MADCash, is another initiative aimed at bridging the financing gap by providing access to microfunds for women in the B40 group to start or upgrade a micro business as a new or additional income stream for the household.

MADCash provides a platform for individuals and organisations to donate to the MADCash fund, which will be distributed to qualified women in the B40 group as interest-free microloans. The loan will be serviced through a weekly payment of up to 10 months. Repayments will be channelled back into the fund for the next qualified individuals, thus creating an ecosystem of women funding and growing women.

Rolled out in April last year during the first MCO, MADCash funded three women F&B entrepreneurs with a RM1,000 loan each in the pilot run, says Nuraizah. These loans have been repaid, and with the cash injection the entrepreneurs netted revenues totalling RM17,000, she says.

The success of this pilot project led Nuraizah, who is president of the Women Entrepreneur Network Association (WENA), to look at ways the not-for-profit organisation could scale up its business support programmes. “The pandemic gave us an opportunity to take the helm of the Academy for Women Entrepreneurs or AWE (an online business and finance academy created by the Thunderbird School of Management and the University of Arizona). With funding from the US Embassy in Kuala Lumpur in August 2020, we took on 30 women entrepreneurs to help them grow their business,” she says.

This year, the second cohort of AWE launched on Aug 19 includes 50 women.

Initiatives like this also help to bridge the knowledge and skills gap faced by women entrepreneurs, not just those within the technology industry. Apart from their experiences in start-up development programmes, women entrepreneurs say that having good women leaders in the industry and mentors helps. “It helps to have female leadership because they would then mentor the next generation,” says Goh.

Nuraizah adds that training alone or funding does not translate into business growth. “It’s the engagement with mentors and the support network that help bring clarity to our vision and thoughts. Not many women entrepreneurs are trained in building a business, so a lot of things are learnt on the job. Mentors offer that outsider’s view of your business and that’s important because oftentimes, we are too busy fire-fighting to see what is happening,” she says.

Good for women, good for the economy

In Malaysia, it is estimated that some 20% of small and medium enterprises (SMEs) are women-owned. Women make up 35% of the total digital economy workforce, according to MDEC. Although the country’s female labour force rose between 2010 and 2018, from 46% to 55.2%, there is work to be done on gender equality. Worryingly, the country appears to have slipped in the World Economic Forum’s Global Gender Gap Index for 2021, falling eight places to rank 112 out of 156 countries.

The role of women in the economy is crucial in nation-building. “Women need to be given equal opportunity to grow and succeed. The World Economic Forum has shown that societies with greater gender equality not only offer better socioeconomic opportunities for women, but tend to grow faster and more equitably,” says Lim.

Women entrepreneurship is increasingly understood to be a key driver of economic growth and job creation, says Surina, pointing to a 2018 report by McKinsey & Co, which forecasts a collective US\$4.5 trillion (RM19 trillion) annual growth in the GDP of Asia-Pacific countries by 2025 with the advancement of women’s equality. This is a 12% rise over the business-as-usual trajectory.

Critical to Malaysia’s post-pandemic economic recovery are women-owned and led businesses, from gig economy workers to owners of micro businesses. “So, we also need procurement policies that support women-owned businesses and tax incentives for corporates that adopt these policies,” says Nuraizah.

Lim believes a gender-balanced economy also ensures the well-being of families. “Studies of different economies in various stages of development, such as Bangladesh, Brazil, Canada, Ethiopia and the UK, have shown that women generally devote more of the household budget to education, health and nutrition than men. Women entrepreneurs tend to be more sensitive to human and family issues. There are also gains in terms of poverty reduction, environmental sustainability, consumer choice, innovation and decision-making on a wider set of issues,” she says.

Having women at the forefront of leadership is a future that we should all aspire towards, says Goh. “We’ve seen, for example, how women-led countries had a better response to the Covid-19 pandemic. They were more balanced in their approach, transparent and were able to get the buy-in of their people,” she notes.

Society and women themselves have a role to play in advocating for women. “We need young girls and boys to see women stepping up as business owners and leaders — they need to see their mothers, sisters, aunts, neighbours take on these roles. Without prominent women leaders in society, we are missing the role models to spark this interest in contributing to nation-building. What we badly need are more women in government-linked companies, corporations and, specifically, politics. Women need to play a much bigger role in the government to contribute to the growth of Malaysia,” says Nuraizah. **E**



GIRLS WHO CODE

Four Form Five schoolgirls from SMK St Joseph in Miri who call themselves the Boolean Babes talk about their recent win in a global mobile app coding competition, and their journey and aspirations in tech

Fedelia Chan Wan Shin’s interest in coding started from a STEM (science, technology, engineering and mathematics) programme that she joined at her school’s Innovation Club. There, she was introduced to Arduino, an open-source electronics platform based on easy-to-use hardware and software, and this eventually led her to discover programming languages and the world of coding. “What I enjoy the most about coding is that it calls on critical thinking and problem-solving skills,” says the 17-year-old from Miri, Sarawak.

At a mobile app class at Realfun Learning Centre, Fedelia learnt about Technovation Girls, a global mobile app coding competition for young women (ages eight to 18) interested in becoming tech entrepreneurs and leaders. She roped in her classmates Ellisa Ee Jia Xin, Paige Kaite Aran and Azlinda Aryanshah Chin, who were all intrigued by the idea. The students of SMK St Joseph, Miri, who are sitting for their Sijil Pelajaran Malaysia (SPM) examination this year, got to work quickly.

The team spent three months working on the app, under the guidance of Teo Yuang Teck, Realfun Learning Centre founder and director, who teaches children and teens how to create apps, games and animation through coding.

Calling themselves the Boolean Babes, the team devised an app called the Solace Sphere, which is to be used as a support system for victims and survivors of domestic violence.

Disguised as a Magic8Ball game, the app helps users identify and assess their current situation, acquire all the necessary information and feel supported. The app, which has not been commercialised, also connects users with counsellors and other survivors of domestic abuse.

The team members were each responsible for specific areas — coding development (Fedelia), marketing (Paige), app design (Azlinda) and research and development (Ellisa). Beating more than 40 teams of semi-finalists across Asia, the Boolean Babes emerged as the Regional Winner (Asia) under the senior category, earning them an invitation to share their work at the App Expo World Summit held earlier this month.

Although they don’t have entrepreneurship on their minds, the world of STEM appeals to some of them, who say they plan to explore areas like digital animation, artificial intelligence and engineering.