INNOVATING THE HEALTHCARE INDUSTRY

BY AYURUHAIZA AYUB

In the past few years, there has been an immense pressure for the healthcare industry to enhance its scale, quality and responsiveness.

Affluent customers are demanding for more personalised and efficient services, leading to the burgeoning healthcare tech start-ups. These start-ups utilise real-time information, artificial intelligence and data science to provide healthcare solutions.

As interesting as this healthcare revolution might sound, exploring a new ground is not easy. Unlike other businesses, healthcare tech start-ups need to adhere to strict regulations as they deal with doctors, hospitals and ultimately the lives of who they are trying to serve.

According to the BI Intelligence Survey carried out by Business Insider, healthcare start-ups are already disrupting the traditional system in many ways. The implementation of electronic health record in clinics and hospitals, for example, is on the rise. It would not even be a surprise if it becomes saturated in the near future.

In this year-end issue, we are introducing you to four healthcare tech enterprises namely MEDKAD, Healthmetrics, BookDoc and Doc-Doc. They are trailblazing into the healthcare market to transform the medical by improving the quality of care with their innovative ideas.

ELECTRONIC MEDICAL CARD FOR EMPLOYEES

The bureaucracy in managing outpatient medical benefit doesn't just consume a lot of time and money; it can also heavily affect a company's administration productivity.

Realising this, MEDKAD co-founders Ezuan Yaacob and Ahmad Azlan decided that something must be done to address the

issue. They came out with a solution that emphasise on flexibility, speed and affordability.

MEDKAD is a mobile and web-based application that functions as an electronic medical card using QR code technology to simplify outpatient medical process at clinics.

The aim is to offer companies with a hassle-free pay-per-use solution to supervise employee's medical needs and claim, simultaneously reducing the likelihood of fraud medical claim and medical budget burst.

"Cases of an employee calling in sick in the morning but only visiting the clinic later at night is a thing of the past. With our analytics capabilities, MEDKAD provides a special health intervention programme to companies. It addresses the high rate (if any) of employees falling sick due to a similar health problem."

"This programme will help companies to better manage their employees' health towards increasing productivity." In order words, through MEDKAD, companies can identify cases of fake medical certificate and perhaps aid and consult their workers if they are diagnosed with a severe health condition.

Currently, MEDKAD has established partnership with 170 clinics in Malaysia, but it targets to reach 400 clinics by the end of this year. Azlan mentioned that they have just appointed Waterbay Sdn Bhd as their Northern Corridor Lead in the third quarter of this year. The company is still identifying organisations that can contribute to their expansion in the East Coast, Iskandar Malaysia economic corridor and East Malaysia.

Speaking about their early days, Azlan shared that at first, MEDKAD received an overwhelming response from an alpha test with selected clinics. Nevertheless, the validation was still lacking for the start-up to proceed with full commercialisation, so they resorted to getting assistance from relevant government agencies that support the development of entrepreneurship in Malaysia. But it wasn't all colours and rainbow.

First, MEDKAD applied for CIP Catalyst a pre-seed programme under the purview of Cradle Fund Sdn Bhd. After three debilitating rounds of pitching, they managed to obtain a fund of RM150,000 which they used to develop the web and mobile application.

Then, Ezuan and Azlan tried applying for Skim Permulaan Usahawan Bumiputera (SUPERB) under TERAJU in 2016. But luck wasn't on their side that year, so they attempted again this year and secured RM500,000 of financial assistance. The fund will be utilised to support MEDKAD's 2018 runway.

"MEDKAD was also selected by the Malaysia Global Innovation & Creativity Centre (MaGIC) for its Global Accelerator Programme (GAP) and e@Stanford. GAP is a 4-month programme to accelerate 80 start-ups to be investment-ready.

"e@Stanford, on the other hand, is an immersive innovation and entrepreneurship programme at Stanford University with networking opportunities in Silicon Valley."

Being humble, Azlan admitted that MEDKAD only got to where it is now thanks to the continuous support given by Cradle, TERAJU and MaGIC. Pioneer adopters like Poliklinik Dr Azhar & Rakan-Rakan who believed in MEDKAD during their initial attempts helped the business too.

A THREAT TO THIRD-PARTY ADMINISTRATORS

Another entrepreneur, Alvin Yuan founded Healthmetrics. Before that, he was working with Managed Care Organisation where his responsibility was to construct health benefit programmes by liaising with insurance companies, healthcare providers and corporate clients.

"It was during that time that I realised corporates were facing issues in managing employee health benefits effectively. The problem is not only time consuming but also causing uncontrolled rise on medical costs and fraudulent claims by employees," he said. He joined forces with fellow co-founder Advent Phang to develop Healthmetrics.

"Existing models (i.e. insurance and third-party administrators) had some inconsistencies in addressing some the issues and HealthMetrics was created with the intention of solving them," said Yuan.

As a cloud-based solution that deals with private medical information, Healthmetrics put data security as their first priority, ensuring that they only work with recognised health providers.

"We also have contracts between our clients and providers to ensure that their data is secure and that it belongs to them. HealthMetrics is just a platform to host information," he explained.

Having a small team to work with, especially when their clients are demanding that the company carries out more services to accommodate their needs is one of the biggest challenges faced by Healthmetrics.

Nevertheless, Yuan revealed that they have always been lucky to receive financial support and guidance from both local and international organisations.

Similar to MedKad, Healthmetrics had received grant from Cradle. Yuan added that recently his start-up became the first Malaysian start-up to be accepted into Google's accelerator programme. "We received top-class mentorship as well as monetary resources from the organisations to be where we are today."

Being a new start-up, gaining prominence can be difficult but Healthmetrics are rapidly scaling, showing a better trajectory from their first year. It is now looking at doing more in the future.

"We find that there are still so many verticals we can work on with our existing clients. It is our priority to continue to refine our products and services to serve them better. We believe in creating a sustainable health ecosystem for companies in Malaysia by involving the right parties to participate."

"We are also looking at regional expansion to neighbouring countries soon. We are now already cash-flow positive and if we do explore on funding, it will be intended for scaling purposes," said Yuan .

BOOSTING MEDICAL TOURISM
Unlike how MEDKAD and Healthmetrics were founded, Datuk Chevy Beh started BookDoc after his friend Wayne had a near-death experience with dengue fever.

The doctors said Wayne was going to be fine, so he was sent back home. But after a few days, his condition exacerbated. Ill and desperate, Wayne contacted Beh. Thankfully Beh, who was the BP Healthcare managing director at the time, managed to get him admitted into the ward.

Beh shared Wayne's experience with his other friend, Fave founder Joel Neoh. Neoh suggested that Beh should create a platform to address the healthcare inefficiency. In 2015, BookDoc was established.

Explaining what BookDoc aims to do in detail, Beh said "We want to remove the 'black box' within healthcare, wherein lack of information on available medical service providers to the public hinders them from

making an informed choice.

"BookDoc acts as a technological enabler that will make the healthcare ecosystem more efficient. We strive to improve the timeliness of diagnosis and help patients find appropriate care anytime, anywhere."

To ensure speedy access to healthcare, Beh said that BookDoc grants users access to information on physician's details, specialties, practice locations and availabilities. He believes such transparency can make a difference in saving lives.

Beh also mentioned that BookDoc has also partnered up with various big players such as Agoda (accommodation), Grab and Uber (land transport), AirAsia (air travel), and integrated navigation services like Waze and Google Map. These partnerships help BookDoc create a hassle-free, all-in-one online ecosystem for medical tourists in and out of the country.

"Appointment booking and navigation to the practice location of their choices are within reach, and can all be done from the platform," stated Beh.

Discussing about strict healthcare regulations, Beh pointed out that each country has their own distinctive standards, making it paramount for BookDoc to ensure partnering medical providers are reputable by going through various verification procedures. This is to safeguard the users from bogus practices.

Nevertheless, he maintained that Book-Doc is only a platform connecting doctors and patients. Hence, they do not endorse any doctor on their experience, speciality or pricing. The liberty to choose which doctor is totally up to the users. This applies to the choices of transportation and accommodation as well.

"We're marketing BookDoc as an all-integrated platform from virtual booking to navigation, for a more seamless user experience," said Beh.

Malaysia has been crowned as the "Destination of the Year" for the third consecutive time at the International Medical Travel Journal (IMTJ) Awards 2017. This is proof of Malaysia being one of the world's best (and cheapest) place for locals and international tourists to get medical treatment.

Hoping to leverage on the industry and becoming the Alibaba or Amazon of the healthcare sector, BookDoc has now secured endorsement from several government agencies such as the Ministry of Tourism Malaysia, adding their credibility as a trusted healthcare app.

EMPOWERING PATIENTS Similar to Beh, it was a personal experience where their daughter has been diagnosed with "Biliary Atresia", a rare heart disease, that compelled Cole Sirucek and his wife, Grace Park to start DocDoc. The company is based in Singapore.

"From that journey, we developed a uniquely personal view of the industry limitations in customer service; the profound need which existed to help empower patients to make informed doctor discovery decisions", shared Sirucek.

The process was arduous, Sirucek told *SME*. "First we had to learn how to define quality in healthcare, in terms that were both relevant to patients and would also withstand the rigours of scrutiny at the most demanding levels.

"Second, we had to convince doctors, clinics, and hospitals to trust us with their data. Third, we had to learn how to consistently provide excellent service to our customers/patients. And lastly, we had to build enough trust with large insurance companies that they would embed us in our workflow."

Nevertheless, he revealed that DocDoc solved all their problems using only one formula. "We listened, we learned, and we pushed forward with what we believed made the most sense and was always in the best interest of the patient."

According to Sirucek, in ensuring an efficient service is delivered to clients, there are several key areas that DocDoc focused on.

"Our data assets are all highly scalable in their design. Our ontology is based on global code-sets. The only way to provide a quality doctor discovery experience at any scale is to have a robust team of professionals that have a laser like focus on knowledge management.

"At DocDoc, we have over a dozen clinical informaticists working with us full time at improving our data collection and comparison methodology."

He emphasised that DocDoc wouldn't be able to manage communications and coordinate patients requests adeptly if it's not for their competent workers; subtly reminding entrepreneurs to choose their team wisely.

"We have a world-class sales team that is staffed with a great group of professionals with deep industry expertise. This has allowed us to build credibility with doctors, clinics and hospitals.

"We also have a contact centre which is staffed with professionals and lead by an individual with decades of expertise in healthcare case management."

DocDoc's services deal with data storage, so it is crucial to be vigilant in protecting the security of their customer's data.

As a precaution, they make sure that their data are encrypted at all time; at rest and in transit. The company also has robust policies in place with regard to roll-based access within the organisation.

For DocDoc, it seems that their hard work is slowly paying off, seeing that the healthcare demands on their platform are getting stronger by days. The secret? "We provide a service our customers love," said Sirucek.

"We know this as they give us consistent feedback which is near twice the industry average. We have data no one else has. We structure that data in a way that leads to real consumer empowerment and we are also highly professional, friendly and caring to our customers when we speak with them."

HEALTH TECH
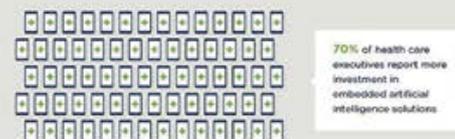How Tech is Disrupting the Traditional Health Care Market
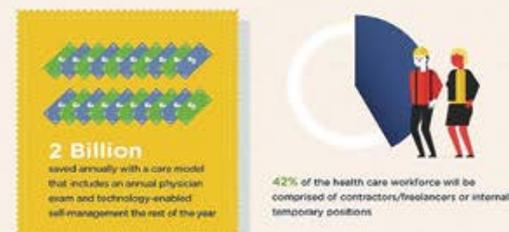
Health Tech Trends

PREDICTABLE DISRUPTION

86% of health care executives agree that organizations are pressed to reinvent themselves

Top 3 industries that health care executives believe will face the most digital disruption within the next 3 years:

health care | banking | biotechnology

INTELLIGENT AUTOMATION

48% of health care executives report extensive use of automation for IT tasks

and 47% for customer interaction

70% of health care executives report more investment in embedded artificial intelligence solutions

5 MINUTES PER ENCOUNTER can be saved by each US primary care physician applying virtual health to annual ambulatory patient encounters

LIQUID WORKFORCE

76% of health care respondents believe a more fluid workforce will improve innovation

2 Billion saved annually with a care model that includes an annual physician exam and technology-enabled self-management the rest of the year

42% of the health care workforce will be comprised of contractors/freelancers or internal temporary positions

PLATFORM ECONOMY

39% of health care executives believe adopting a platform based business model and engaging in ecosystems of digital partners are very critical to the success of their business

10x growth is expected for health application programming interfaces in 5 years

DIGITAL TRUST

87% of health care directors think that violations of data ethics equal that of security violations

65% of people believe that the ability to access medical info is more important than the risk of privacy invasion

FUNDAMENTALS OF SETTING UP A HEALTHCARE TECH BUSINESS

HAVE A PROBLEM TO SOLVE Before delving into the scene, it's crucial to determine what are the problems your solution will be targeting and solve. One should not jump into this industry merely because it looks lucrative.

"One must take a step back and ask the question: Why am I doing this in the first place? This is how BookDoc came about; to improve access to care and transparency. My ultimate goal is for BookDoc to become the healthcare platform that people recognise, that helps improve people's lives and help them in many, many, ways," Beh said.

DO YOUR RESEARCH Due to the intricacy and interconnectivity of the healthcare ecosystem, it's crucial for those who wants to venture into this scene to conduct an extensive research first. There are regulations that need to be adhered by the stakeholders and the inability to comply to such standards can become a bottleneck for a start-up.

"It is really important to first have an understanding of the industry as a whole and how a disruption can cause a chain reaction to other connected parties. Research would be the most important thing before going into health tech, but the impact and rewards will also be significant if you manage to pull it off," said Yuan.

COMMUNICATE It's best to get feedback not just from your customers but also your employees, clients and stakeholders. By consistently being aware of your weaknesses and strengths, you can fix the loopholes in your service and retain what are good.

Azlan asserts, "Validation of the solutions is crucial to the success; therefore, maintain close communication with your key stakeholders for feedback and respond quickly."

HAVE FAITH Healthcare sector is one of the hardest industry for upcoming start-ups. But there is a key which will help these start-ups survive this battle of the fittest - "deep industry expertise juxtaposed with a unique value proposition and exceptional conviction", reminded Sirucek.

THE HEALTHCARE TECH ENTREPRENEURS

MEDKAD CO-FOUNDER
AHMAD AZLAN

Azlan has close to 18 years of experience in business development; sharpening his skills over various GLCs. He began his career at Permodalan Nasional Berhad before joining the Ministry of Science, Technology and Innovation (MOSTI) where he started developing his interest towards entrepreneurship. He co-founded MEDKAD when he was still working with TERAJU (a unit under the Prime Minister's Office) and finally resigned from TERAJU in April 2017 to focus on the start-up.

BOOKDOC FOUNDER
DATUK CHEVY BEH

Datuk Chevy Beh is a seasoned player in the healthcare industry, having experience as the Managing Director of BP Healthcare Group, Director on the Board of Directors of Pantai Hospital Ipoh, and Director of Sunway-City Ipoh. This University of Virginia graduate has also been awarded with the "Most Promising Entrepreneurship Award" at the 2012 Asia Pacific Entrepreneurship Awards (APEA).

HEALTHMETRICS CO-FOUNDER AND MANAGING DIRECTOR
ALVIN YUAN

Yuan served as business development director for IHM Group of Companies. He has eight years of experience in managed care with the expertise in corporate healthcare management, insurance and TPA services, as well as private nursing care. Yuan's vision is to empower corporate healthcare to the next level by combining health and technology.

DOCDOC CO-FOUNDER AND CEO
COLE SIRUCEK

Cole Sirucek is an entrepreneur and investor who co-founded DocDoc with his wife, Grace Park. In his free time, Sirucek is a martial artist, adventure racer, scuba diver and mountaineer. Sirucek has completed self-supported 250KM foot races across China's Gobi Desert and Egypt's Sahara Desert, funding medical missions in Vietnam and China that directly saved the lives of more than 13 children. SME