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Is On-demand Healthcare Taking Off?

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Digital healthcare is converging technology with healthcare to deliver more efficient, personalised, and innovative healthcare services through telemedicine, cloud-based mobile apps, wearable devices, clinical management devices, artificial intelligence, algorithm software, diagnostic medical devices, and more. Making use of the emerging opportunities, startups and Small and Medium Enterprises (SMEs) in Asia Pacific are accelerating their research, development, and production of emerging and disruptive technology tools. These small-scale innovators are gradually entering mainstream opportunities through collaboration with government, academics, and large industries for technological development as well as through partnership and investment opportunities. But, how far have they been successful in making a leap to thrive in the industry and overcoming the barriers? Let's dig deeper.



When the pandemic crisis struck, as a mode of business continuity, many Asia Pacific (APAC) countries accelerated digital transformation creating new opportunities across startup and SME communities. A recent survey by Health-tech company Medtronic revealed that, in around 15 markets of the APAC region, a major percentage of healthcare technology organisations opine that COVID-19 had enabled the development and implementation of innovative ideas, although the positive impact on innovation differed markedly across markets. Even in South-East Asia, telemedicine, online pharmacy, and digital health mobile application gained regional traction solving the long-time concerns about access to a broader spectrum of healthcare services, the need for affordable consultations, quicker appointments, and a significant reduction in the traveling efforts of the patients. Thanks to startups and SMEs for their quick resolutions.

Enhancing Startup and SME success

The pandemic has removed multiple institutional and cultural barriers to the adoption of digital solutions in the healthcare technology setting. Digitisation has grown far more rapidly than was previously thought possible and ushered in an acceptance of remote medical products and services, and alternative care models, fostering greater industry innovation. Despite current apprehensions about data protection and regulatory concerns, the healthcare system is uplifting digital healthcare and MedTech capabilities, IoT infrastructure, and cybersecurity strengths to increase workflow efficiency and patient outcomes. Many startups and SMEs are utilising the opportunity by combining pioneering science, data, analytics, and

technology to deliver better Personalised healthcare (PHC) at a reduced cost.

Talking about the innovation in the region, Dr Keren Priyadarshini, Regional Business Lead, Worldwide Health, Microsoft Asia said “There has been an explosion of technological innovation in healthcare through startups and unicorns. I believe we have entered a golden era; a pivotal point for healthcare.”

Medtronic, a global medical device company recently revealed its findings from a survey of over 150 executives (healthcare technology companies, market executives, academics, and technology pioneers) from healthcare technology organisations operating in 15 markets in the APAC region. The study which is presented as a white paper is commissioned by Medtronic in support of Singapore’s Economic Development Board (EDB) aiming to explore the challenges that early-stage startups and middle-stage healthcare technology companies experience in the APAC. The quantitative survey indicates challenges APAC healthcare technologies companies face in improving healthcare accessibility.

According to the report, “The APAC region is expected to account for more than 40 per cent of the growth in global healthcare spending over the next decade— expanding at a rate almost double that of the rest of the world. Other estimates indicate that digital health in the region could spike in value from $37 billion in 2020 to $100 billion by 2025. The region’s telemedicine market alone is expected to grow from $8.5 billion in 2021 to $22.5 billion by 2025.”

Further, the study reveals that far more Indian (77 per cent) and Australian (63 per cent) companies felt the benefits of increased innovation from the impact of the pandemic, compared to those in South Korea (17 per cent), Japan (40 per cent), and ASEAN (47 per cent). Companies that found themselves with the right solutions at the right time, and which were able to harness the people, funding, and networks they needed to rapidly scale their business, turned the pandemic into a unique business opportunity. In 2021, $8.7 billion of venture funding was deployed across 317 digital health deals in the APAC region, an increase of 11.2 per cent as compared to 2020, showing the growth in VC-backed startups in the region and the willingness of venture capitalists to invest in APAC”.

Some of the key factor that influences startups and SMEs are;

Data privacy and security regulations

Healthcare technology has become one of the fastest-growing verticals regionally. The opportunities for healthcare technology startups in the APAC region have never been so vast, nor the rate of change so swift. Despite the opportunities, healthcare technology startups in the APAC region encounter challenges. Not all companies saw innovation and investment thrive during the pandemic. During Medtronic’s survey, around 35 per cent of survey respondents said that the impact of COVID-19 had resulted in the stagnation or demise of an idea, and for them, the disruption often proved hard to navigate.

“The challenges that these companies faced were the result of the enormous strain placed on healthcare organisations during the pandemic, as well as the fragmentation of healthcare systems. A large number of legacy technology systems proved challenging to integrate because digital solutions take time to implement. This is particularly an issue in the public healthcare system where the scale is huge and decisions need multiple approvals. This is reflected in the difficulties faced by many startups regionally”, says Dr Keren Priyadarshini.

Besides, data privacy and security regulations are crucial concerns at early-stage startups and SMEs, posing an obstacle. The regulatory framework is therefore critical to the success of startups and SMEs. The organisations working with patient population health data might consider factors like data privacy rules, data security, data transparency, data interoperability, data sharing, data standard benchmarks, Patient participation in data generation, Peer-to-peer technical assistance as some of the enablers or barriers in the delivery of patient healthcare.

Some healthcare organisations are worried about the integrity of cybersecurity posture which might arise due to digitisation. But, network vulnerability can eventually cause hindrance in smarter communications across the care network. A smart communications system can make it considerably easier to coordinate resources across departments, and even different clinics and hospitals – enabling the optimal management of resources. Startups and SMEs are greatly working towards convincing the end-users in these aspects.

“A strategic cybersecurity plan that manages risks and includes a layered approach to the entire organisation’s technology ecosystem, which oversees the four core disciplines of security—identity management, vulnerability management, threat management, and trust management is essential to offer to MedTech and Healthtech sectors. This ensures that no backdoor is left open for malicious intervention” says Dirk Dumortier, Head of Business Development Smart-City and Healthcare, Asia-Pacific, Alcatel-Lucent Enterprise.

Nevertheless, Medtronic’s study reveals that healthcare technology startups and SMEs are competing by driving innovation pathways and adapting a wide technology range of innovations in their businesses, from big data and predictive analytics (used by 32 per cent of companies surveyed) to AI (used by 29 per cent), polymer science/surface coating/ drug delivery (27 per cent), all the way through to value engineering (7 per cent) to increase access to healthcare. Similarly, the application of surgical robotics, Virtual reality, and wearable tracking devices is revolutionising the way many diseases are monitored and managed.

Data security should be a future focus for healthcare technology companies. Data security is a global and inter-sectoral issue, and over 45 per cent of respondents ranked data security as the most significant barrier to the delivery of patient healthcare. Despite the magnitude of the challenge, data security could prove to be a lucrative opportunity for existing companies or those considering entering the healthcare technology sector, according to the Medtronic report.

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