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NIUM: LEVERAGING FINTECH TO DISRUPT CROSS-BORDER REMITTANCE SERVICES

Remittances are a lifeline to low- and middle-income countries and an effective way to alleviate poverty because they go directly to families.

- The World Bank¹

October 2019. The long queues that formed daily outside the money transfer agents in Little India, an ethnic district in Singapore, was a common sight. Nothing seemed to deter the lines of people, mostly migrant workers, queuing patiently to send money back to their loved ones in their homeland. If they knew about digital remittance, perhaps the queues would disappear one day?

On a mission to disrupt the traditional remittance industry was one such fintech outfit named Nium (originally branded as Instarem, short for Instant Remittance). Founded in 2014 by Prajit Nanu and Michael Bermingham, the two friends were confident they could give the banks and brick-and-mortar money transfer operators a run for their money by offering low transaction fees, zero-margins on foreign exchange rates and fast speed of settlement. They saw a huge potential to unravel the difficulties posed by incumbent institutions, which were entrenched in practices of charging high agent fees with inflated foreign exchange spread, slow processing due to multiple intermediaries, and at times, the bureaucracy that caused extra inconvenience to customers.

By capitalising on razor-thin margins per transaction, an emerging crop of digital-only remittance start-ups, including Nium, were hoping to undercut the industry titans. Since its founding, Nium was on a high growth trajectory after raising US\$59.5 million in three rounds of equity funding, and was named as one of Singapore's hottest start-ups in 2018.² Headquartered in Singapore, Nium had emerged the leader in cross-border payments in Southeast Asia with a presence across North America (US and Canada), Europe and Asia Pacific (Singapore, Hong Kong, Australia, India, and Malaysia). As Nium diversified its service offerings and grew its institutional client base in the years ahead, what role would remittance play in its business? While an IPO was in the pipeline in 2022-23, what would be the other ways to move forward?

The Fintech Revolution

Reshaping Financial Services

Fintech, an abbreviation for financial technology, was broadly referred to as the use of innovative

¹ Donna Barne and Florina Pirlea, "Money Sent Home by Workers Now Largest Source of External Financing in Low- and Middle-Income Countries (Excluding China)", World Bank Blogs, July 02, 2019, <https://blogs.worldbank.org/opendata/money-sent-home-workers-now-largest-source-external-financing-low-and-middle-income>, accessed June 2019.

² Singapore Business Review, "Singapore's Hottest Startups 2018", March 2018, https://sbr.com.sg/sites/default/files/singaporebusinessreview/print/SBR_FEBMAR18-18-28-31.pdf, accessed June 2019.

This case was written by Professor Annie Koh, Professor David Fernandez and Dr Cheah Sin Mei at the Singapore Management University. The case was prepared solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

technologies to deliver financial services that could potentially disrupt the way traditional financial institutions (such as banks) function.

It wasn't until the aftermath of the financial crisis in 2008 that fintech began to rise to prominence. Fintech companies, a new breed of financial institutions, were widely believed to be born out of the global financial meltdown resulting from the collapse of the US subprime mortgage market and the public's loss of confidence in the well-established banking systems.³

For a long time, banks' monopoly of the financial market had enabled them to charge high commissions, hike up foreign exchange rates and embed hidden transaction fees. With few or almost no other viable alternatives, consumers were at the mercy of banks until the emergence of fintech start-ups in the late 2000s.

Then, the tide turned in favour of the brave and bold. Entrepreneurs leaped at the opportunity to innovate, which was enabled by the combination of smartphone launch (iPhone, in particular, in 2007), mass mobile adoption by the younger generation, and emerging technologies (such as cryptocurrency, blockchain, etc.).

Fintech had come to play an increasingly important role in the financial lives of people by serving their needs in four key areas – bill payment and fund transfer, credit lending, savings and investment, and insurance solutions.⁴ Payment and transfer functions were among the earliest waves of development in fintech. Most of the fintech companies offering e-payments and e-wallets were business-to-business operators serving e-commerce merchants. The next wave that swept the fintech market was money lending. Fintech start-ups in the lending space were leveraging on technologies to assess and monitor credit-worthiness, aggregate and compare credit options, and enable peer-to-peer borrowing. Insurance was a newcomer to the fintech scene but was quickly gaining traction in the late 2010s.⁵

By offering fee reduction, cost transparency, and fast transactions, fintech companies were re-establishing trust with consumers, and in the process, upstaging retail banks and other traditional financial institutions. Diverting from the traditional business model of the financial world, fintech's value proposition was sufficiently compelling to attract hordes of investors.

The Global Fintech Market

In 2016, US\$24 billion worth of investments were poured into the global fintech industry, of which Asia devoured the biggest piece of the pie of US\$14 billion with the bulk going to China and India.⁶ Southeast Asia, in particular, saw a jump of 33% in investments from US\$190 million in 2015 to

³ Rob Braileanu, "How the Global Financial Crisis Gave Birth to Fintech", Revolut Blog, September 13, 2018, <https://blog.revolut.com/how-the-global-financial-crisis-gave-birth-to-fintech/>, accessed June 2019.

⁴ Omidyar Network, "Breaking New Ground in Fintech: A Primer on Revenue Models that Create Value and Build Trust", 2018, https://www.omidyar.com/sites/default/files/file_archive/Breaking_New_Ground_FinTech/Breaking%20New%20Ground%20in%20FinTech%20v2.pdf, accessed June 2019.

⁵ Mark Suckling, "New Developments in Fintech are Hitting Southeast Asia in Waves", March 27, 2019, <https://e27.co/new-developments-in-fintech-are-hitting-southeast-asia-in-waves-20190327/>, accessed June 2019.

⁶ United Overseas Bank Limited, "State of Fintech in ASEAN", 2017, <https://www.uobgroup.com/techecosystem/pdf/UOB-State-of-FinTech-in-ASEAN.pdf>, accessed June 2019.

US\$252 million in 2016.⁷ Singapore was the leader among the Southeast Asian hotbeds; in 2017 the country had the highest e-wallet penetration at 23.3%, the highest volume of cashless payments on consumer purchases at 69%, and over a hundred fintech start-ups out of 367 in the region.⁸

By 2018, the booming global fintech market was valued at US\$113 billion, after doubling its revenue from US\$55 billion in 2015.⁹ The trend of substantial growth at a compound annual growth rate (CAGR) of 22% was expected to continue into 2023, reaching a forecasted value of US\$306 billion (see **Exhibit 1** for the projected growth in the global fintech market).¹⁰

Towards Fintech–friendliness

While tighter regulations were imposed on banks after the global financial crisis to prevent another market crash, fintech start-ups around the globe had enjoyed strong regulatory support. Given the huge potential of fintech and its impact on economic development, various regulators and policymakers of developed nations were implementing initiatives to encourage a fintech-friendly environment.

Some countries, for example, Singapore, had adopted a ‘regulatory sandbox’ that provided a space for fintechs to experiment with innovative financial solutions under relaxed legal and regulatory requirements.¹¹ Others had established a special economic zone to incubate fintech start-ups, such as the Fintech City in the Philippines.¹² To top it all, the UK had grown to become the fintech capital in the world in providing the best regulatory support for new entrants and tax support for corporations and investors.¹³

The Digital Remittance Landscape

Remittance, an Economic Lifeline

Remittance, or money transfer, was a major financial trade since the history of cross-border human migration. An estimated 258 million migrants were living outside of their country of origin¹⁴ and the global remittances made by diaspora communities reached US\$528 billion in 2017, according to

⁷ Ibid.

⁸ Ibid.

⁹ Netscribes Global Reports, “Global Fintech Market: 2018-2023”, April 2019, retrieved from EMIS Professional database, accessed June 2019.

¹⁰ Ibid.

¹¹ Monetary Authority of Singapore, “Regulatory Sandbox”, June 27, 2019, <https://www.mas.gov.sg/development/fintech/regulatory-sandbox>, accessed June 2019.

¹² Philip Keller, “Philippines Fintech Push makes it a Compelling Market to watch”, Regulation Asia, <https://www.regulationasia.com/philippines-fintech-push-makes-it-a-compelling-market-to-watch/>, accessed June 2019.

¹³ EY, “UK FinTech: On the Cutting Edge”, February 24, 2016, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/502995/UK_FinTech_-_On_the_cutting_edge_-_Full_Report.pdf, accessed June 2019.

¹⁴ William Lacy Swing, “How Migrants Who Send Money Home Have Become a Global Economic Force”, Weforum, June 14, 2018, <https://www.weforum.org/agenda/2018/06/migrants-remittance-global-economic-force/>, accessed June 2019.

the United Nations.¹⁵ For some developing countries, the inflow of remittances had even exceeded official development assistance and foreign direct investment to become the largest source of external financing.¹⁶

On a macro level, financial remittance played a major role as an economic vehicle by boosting the Gross Domestic Product (GDP) of developing countries. In smaller and/or poorer developing nations, remittances made up a sizeable portion of their GDP - up to 40% in Tonga, for example - as reported by World Bank.¹⁷

As an economic lifeline, remittance was a way to lift people in developing countries out of poverty through funds channelled into improving health, education and housing conditions, as well as for the pursuit of entrepreneurship opportunities. As many as 800 million people in the world were financially dependent on remittances received from family members and relatives working abroad.¹⁸

Developing countries could potentially be enriched by greater remittance inflows if not for the high cost of money transfers. The global average transaction rate for transferring US\$200 stood at 7% in 2017, and the goal of United Nations Sustainable Development was to bring it down to 3% by 2030.¹⁹ World Bank estimated that a reduction of 5% could add US\$16 billion a year to the current flows to receiving countries.²⁰

The Move to Digital and Cashless

With the fintech revolution unfolding, the remittance industry began to shift gear to digital, albeit a gradual move. Digital channels had a tiny nibble of the market share (6%) while cash, which had traditionally dominated the cross-border transfer market held on to a chunky share (94%), as of 2014.²¹

Among the fintech segments, the remittance market was the third-largest (US\$5.33 billion) after payment (US\$68 billion) and mortgage (US\$6.64 billion) in 2018 (see **Exhibit 1** for the projected growth in the global remittance market).²² Geographically, the North American region dominated with a market value of US\$2.45 billion, followed by Europe (US\$0.85 billion) and Asia Pacific (US\$0.58 billion) in 2018.²³ In the Asia Pacific region, Southeast Asia's emerging market

¹⁵ United Nation, "International Day of Family Remittances: 16 June", <https://www.un.org/en/events/family-remittances-day/>, accessed June 2019.

¹⁶ OECD, "Non-ODA Flows to Developing Countries: Remittances", 2019, <https://www.oecd.org/dac/stats/beyond-oda-remittances.htm>, accessed June 2019.

¹⁷ Remittances to Tonga, a Polynesian sovereign state in the Oceania, was 40.7% of GDP in 2018.

Source: The World Bank, "Personal Remittances, Received (% of GDP)", 2019,

https://data.worldbank.org/indicator/BX.TRF.PWKR.DT.GD.ZS?most_recent_value_desc=true, accessed June 2019.

¹⁸ William Lacy Swing, "How Migrants Who Send Money Home Have Become a Global Economic Force", Weforum, June 14, 2018, <https://www.weforum.org/agenda/2018/06/migrants-remittance-global-economic-force/>, accessed June 2019.

¹⁹ United Nations, "Sustainable Development Goal 10: Reduce Inequality Within and Among Countries", 2018, <https://sustainabledevelopment.un.org/sdg10>, accessed June 2019.

²⁰ The World Bank, "Remittance Prices Worldwide", 2015, <https://remittanceprices.worldbank.org/en>, accessed June 2019.

²¹ Business Insider Intelligence, "The Digital Remittance Report: The New Platforms Disrupting a \$600 Billion Industry", Yahoo News, November 5, 2018, <https://sg.finance.yahoo.com/news/digital-remittance-report-platforms-disrupting-160300615.html>, accessed June 2019.

²² Netscribes Global Reports, "Global Fintech Market: 2018-2023", April 2019, retrieved from EMIS Professional database, accessed June 2019.

²³ Ibid.

demonstrated enormous potential due to a massive population of 438 million of unbanked people (refer to **Exhibits 2 and 3** for the digital remittance market revenue).²⁴

Digital remittance operators could play a vital role in accelerating financial inclusion, defined as “the delivery of formal financial products and services to all segments of a population irrespective of their economic situation”.²⁵ By providing last-mile access to financial services for the underserved community who did not own bank accounts and/or those living in rural areas without retail bank branches, digital financial solution providers could fulfil some of the unmet needs for payment, transfer, savings, credit and insurance services.

Within Asia Pacific, Singapore stood out as the most promising market for digital money transfer operators with the highest forecasted CAGR (26.7%) for the period 2019 to 2025, ahead of Japan (26.0%), Hong Kong (23.8%), India (21.9%) and China (19.8%)²⁶ (refer to **Exhibit 4** for a breakdown of the Asia Pacific market as of 2017).

As at the second quarter of 2019, across remittance channels, banks were the most expensive at an average fee of 10%, followed by post offices at 8% and money transfer operators at 6%, with the cheapest being mobile operators at 3%.²⁷

Nium: Bridging Currency Borders

Born Out of Inconvenience

Founded in August 2014 by two friends, Prajit Nanu and Michael Bermingham (Mike), Nium was the brainchild of Prajit, who conceived the idea of a start-up while trying to organise a bachelor party for another friend in Phuket, the idyllic resort-island in Thailand. It was then that he stumbled upon the inconvenience of remitting money across countries. What appeared to be a seemingly straightforward payment for booking turned out to be a cumbersome process.²⁸ Firstly, the villa in Phuket could only accept a bank transfer and when Prajit approached his bank in India, little did he expect bureaucracy in the form of a heap of documentation. Fortunately, an ex-schoolmate, who was regularly transferring funds between Thailand and India, offered to help and revealed, to Prajit's surprise, the high transaction fee charged by the banks.

Thereafter, conversations with Mike soon convinced Prajit that the duo could give banks a run of their money, as each brought to the table a decade of global experience in technology consulting and foreign exchange respectively. And not long after, the start-up was born.

²⁴ Rachita Rake, “Asia-Pacific Digital Remittance Market: Opportunity and Industry Forecast”, July 2018, Allied Market Research, retrieved from EMIS Professional database, accessed June 2019.

²⁵ Asian Development Bank, “Accelerating Financial Inclusion in South-East Asia with Digital Finance”, 2017, <https://www.adb.org/sites/default/files/publication/222061/financial-inclusion-se-asia.pdf>, accessed August 2019.

²⁶ Rachita Rake, “Asia-Pacific Digital Remittance Market: Opportunity and Industry Forecast”, July 2018, Allied Market Research, retrieved from EMIS Professional database, accessed June 2019.

²⁷ The World Bank, “Remittance Prices Worldwide”, June 2019, https://remittanceprices.worldbank.org/sites/default/files/rpw_report_june_2019.pdf, accessed June 2019.

²⁸ Prajit Nanu, “How Fintech is Disrupting the Traditional Remittance Market”, February 19, 2019, <https://medium.com/vertexventures/how-fintech-is-disrupting-the-traditional-remittance-market-1665662c473c>, accessed June 2019.

The Growth Spurt

Headquartered in Singapore, a fintech-friendly city-state, Nium's modest beginning took place with a seed funding of US\$500,000 from Rocket Internet, a start-up incubator based in Germany.²⁹ Heading for the upswing, the start-up quickly gained speed in attracting investors. A year later, in March 2016, it secured US\$5 million in a Series A funding round from Vertex Ventures, a US-based venture capitalist.³⁰ A round of Series B funding of US\$13 million, led by China-based GSB Ventures, followed shortly in July 2017.³¹ A subsequent boost of US\$41 million was raised in March 2019, and was again supported by Vertex and a new South Korean investor, Atinum Investment.³²

Within a short span of four-and-a-half years, Nium had amassed US\$59.5 million to become one of the fastest-growing digital remittance company in the Southeast Asian region (refer to **Exhibit 5** for the timeline of Nium's major developments).³³ Not only did Nium make its way into the charts of the top ten most well-funded fintech start-ups in Singapore in 2019, the start-up was the only representative from the remittance industry.³⁴

Disruption through Cost, Transparency, and Speed

Nium's rapid growth stemmed from its offerings that squarely addressed challenges besetting prevailing modes of money transfer - high-margin foreign exchange (FX) rates, hidden transaction fees, and slow transfers. Nium built and sustained its competitive edge through real-time or same-day payments made to their clients in multiple markets. For example, cross-border money sent from Singapore to India could be received on the same day on or near real-time harnessing India's IMPS real-time payment system. In this corridor, Nium's costs were low and could offer a thinner spread. Nium's FX rates were close to Reuter's interbank rates as it did not charge additional fees on top of the FX rate, and as such it was more competitive and transparent compared to other banks and remittance companies.

Nium managed to sweeten the deal for customers with competitive low rates by playing on economies of scale. As Nium dealt with millions of dollars worth of transactions with the banks every day, it could get low rates due to its sheer volume and in turn give their customers close to an interbank rate.

The value proposition that propelled Nium's impressive growth was simple, yet something that the banks could not offer at that time. Mike noticed how incumbent banks were struggling to keep up with the fintech revolution,

²⁹ India Education Diary, "InstaReM, An International Remittance Payments Start-up, Is Looking to Hire in India", September 18, 2017, <https://indiaeducationdiary.in/instarem-international-remittance-payments-start-looking-hire-india/>, accessed June 2019.

³⁰ InstaReM, "InstaReM Announces the First Close of One of the Largest Series C Rounds For A Fintech in Southeast Asian History" (blog), November 22, 2018, <https://www.instarem.com/blog/news/press-releases/instarem-announces-the-first-close-of-one-of-the-largest-series-c-rounds-for-a-fintech-in-southeast-asian-history/>, accessed June 2019.

³¹ Ibid.

³² Ibid.

³³ InstaReM, "InstaReM Launches in Europe, Determined to Bottom Out the Market on Behalf of Consumers" (blog), June 19, 2019, <https://www.instarem.com/blog/news/press-releases/instarem-launches-in-europe-determined-to-bottom-out-the-market-on-behalf-of-consumers/>, accessed June 2019.

³⁴ Fintechnews Singapore, "10 of The Top Funded Fintechs in Singapore", February 19, 2019, <http://fintechnews.sg/28759/funding/top-funded-fintech-singapore-startup/>, accessed June 2019.

For example, to send money from Australia to Singapore, Nium can process the transaction in seconds, while the banks can't do that. They simply can't keep up with that.

Navigating the Terrain to Disruption

Entrenched in traditional practices and legacy computer infrastructure that had served them well, banking powerhouses were relatively slow to react to the fintech revolution brought about by young, agile start-ups. However, any attempts at disrupting business-as-usual would understandably not be plain sailing, let alone changing the financial industry which was one of the most heavily-regulated in the world.

Regulations and Licensing

Licensing remained one of the significant barriers to entry. First of all, Nium would require a local money transfer operator license to operate in the respective countries' markets. Getting one in Singapore was relatively fast and easy, but not for the other markets, as Mike explained,

The challenge was licensing and getting into the markets quickly. The process of applying for a licence may take 3, 6, 9, 12 or 18 months. It depends on which country we are going to and its regulatory environment. In some countries, it takes 3 to 6 months to get a bank account opened. Canada, for example, took us a bit longer, because the country has a few big banks that are controlling many smaller banks.

Even in established currency corridors (refer to **Exhibit 6** for the list of pay-in and pay-out currencies), the speed of remittance ultimately depended on the efficiency of the banking systems in the corresponding countries. Mike illustrated,

The challenge in our existing corridors is to ensure our systems and controls are in place to process transactions in a timely manner. For some countries, like the US, the banking systems are older and it may take a day, or sometimes, two days. It is not as streamlined as those in Australia, Singapore, and Hong Kong, which are smooth and very fast.

Liquidity Management

Historically, managing liquidity was a headache for traditional money transfer operators. Nium found itself in the same spot as not all markets allowed them to 'net off', a practice of paying the recipient from a pool of ready funds in the destination country's bank. Relying on the previous month's transaction data, Nium would predict two days of currency volume required for each exchange corridor.

In addition, Nium had to take caution in minimising exposure to liquidity and foreign exchange risks when administering payments in multiple directions. The general direction of remittance flow was from the larger, developed economies to the smaller and developing countries. Due to fluctuating demand patterns and exchange rates, managing currency inflows and pre-empting outflows was of critical importance to Nium. Pratik Gandhi, Chief Operating Officer, mentioned,

FX gains or losses can happen. Since our platform is digital, our clients can get an online quote from us anytime. We will honour that rate for a certain duration even if there are market changes in the rate. With the destination banks, we are able to book exchange rates only when the local FX market is open and only a few times during those operating hours a day, and at different times of the day, so it's less risky. And I can only book a rate when the funds are transferred into my bank account. But by the time the money actually moves, the rates may have gone up or down compared to the rates we promised the customer. So on some days we gain, and on other days we lose.

Unexpected Competitors

Being a lucrative industry worth half a trillion dollars, remittance had attracted the attention of many non-financial companies that wanted a piece of the pie. Grab Holdings Inc., a transportation network company founded in Malaysia and subsequently based in Singapore had announced its wallet-to-wallet remittance function³⁵, while its competitor Go-Jek had teamed up with Coins.ph, a fintech company in the Philippines that provided remittance services on mobile wallets.³⁶

On facing the threat from new market entrants, Mike spoke confidently of beating the competition, and even reversing competition into potential partnerships,

A lot of competitors like Grab are coming into the market, which is fine. They will eventually face the challenges of getting the licenses to operate in different countries. We will reach out to them instead. Here in Asia, we are one of the largest (remittance) service providers, and we do it faster. We have a lot more global reach, and we have been in the market longer. So when the competition comes, it creates an opportunity for us.

Pratik, concurred,

What we bring to the table is a ready-made integration with the banks. We have already laid the foundation. Now imagine if a new company wants to connect to 50 countries, it will have to set up 50 different corridors with 50 different correspondent banks. To open up that many corridors requires many integrations and it is not easy. But they can cut short the process by connecting with us.

From Start-up to Scale-up

From Retail to Institutional Clients

While the duo founders had initially set out to serve retail customers, such as expatriates remitting money back to their home countries, they soon discovered the opportunity to facilitate payments for small to mid-sized companies, and eventually for corporates. Pratik recalled, “It was in 2016 when a large UK-based company approached us for help on sending money to Malaysia”. That same year, the institutional arm of Nium was formed.

³⁵ Grab, “Grab Unveils Region’s First Wallet-to-Wallet Remittance Product”, November 16, 2018, <https://www.grab.com/sg/press/others/grab-unveils-regions-first-wallet-to-wallet-remittance-product/>, accessed June 2019.

³⁶ Reuters, “Go-Jek Begins Services in Thailand, says Philippine Launch to be ‘Pretty Fast’ CEO”, February 27, 2019, <https://www.reuters.com/article/us-gojek-thailand/go-jek-begins-services-in-thailand-says-philippine-launch-to-be-pretty-fast-ceo-idUSKCN1QG122>, accessed June 2019.

Nium started picking up large clients in 2018. By 2019, the business-to-business (B2B) segment had expanded considerably to constitute almost 60% of Nium's overall transactional volume.

In the same year, Nium began to embark on a major shift in business direction towards growing the B2B business to newer heights. The first pillar of growth would be the launch of a platform for SMEs (small and medium enterprises) to help them collect and manage payments in overseas markets as they expand globally. The second pillar was to provide back-end payment infrastructural services which would be connected to the SME's front-end consumer-facing portal.

Besides small and medium enterprises which dealt with amounts in the range of hundreds of thousands, institutional customers including payment companies and small-scale banks which needed help on last mile payments within a country.

Mike added,

In fact, they (banks) use us to process payments for them. Yes, our competitors are actually part of our business. We have onboarded some banks in Asia and in the United States as our clients.

Partnerships were the stepping stone on Nium's collaborative road to scaling-up. Nium's decision to engage a technology partner, Ripple, was strategic to its rapid global expansion. RippleNet, a global network of over 200 banks and payment service providers, was a financial infrastructure platform built on blockchain technology, which was a common shared ledger consisting of, in this case, all of Ripple's partners. Nium's partnership with RippleNet opened up doors for the latter's network members to access Nium's Southeast Asian market, in which the start-up had established a stronghold.

Bringing Out the 'Tech' in Fintech

Being a fintech company, the deployment of innovative technology was instrumental in enabling market disruptions. Quicker transactions, lower fees, and wider geographical coverage would not be possible if not for Nium's enhanced technological capabilities in the areas of agility, interoperability and scalability.

Technological agility was a prime factor that enabled fintech start-ups to launch new services to the market quickly. Microservices, a software development approach in which a large application was divided into smaller and independent units that worked together as a whole, was the enabler of fast availability of payment features. Said Mangirdas Skripka, the Technical Lead of Nium's developer teams in India and Lithuania,

Using microservices, we could release a new feature in a week, while most banks would have taken a month as they are using old technologies.

Interoperability was the key to ensuring seamless integration between Nium and other financial entities in the fintech ecosystem. Each integration with a bank had to take into consideration key information such as the payees, the amounts, and the currencies to pay.

On achieving scalability to support business growth, Mangirdas added that Nium's applications were capable of scaling well to meet higher volumes of transactions,

We have many small applications running simultaneously based on microservices. We scale them automatically whenever we have a bigger load for a specific part of the applications, so that we can handle our client's requirements.

Surfing High on the Fintech Wave

Nium's rapid scalability in acquiring licenses and its speed of opening new currency corridors had won it the 2018 Blockchain Innovator Award under the Network Accelerator category conferred by Ripple. In May 2018, Nium successfully made inroads into the South American markets through a partnership with BeeTech, a leading money service provider in Latin America. By 2018, with a large partner network of over 8,000 banks, Nium had elevated its capacity to serve 3.2 billion people in more than 60 countries worldwide.³⁷

Nium also bagged other accolades, such as the Singapore Fintech Award at the 2017 Singapore Fintech Festival, the Outstanding Digital Cross-Border Money Transfer Service at the 2017 ET Net FinTech Awards in Hong Kong, and the Fintech Rising Star Award at the 2017 India FinTech Awards in Mumbai. Nium also won the Best Fintech Employers of the Year at the Singapore Fintech Awards 2019.

Co-Creating Company Culture

As Nium grew rapidly from a start-up to a scale-up upon establishing its brand name in the digital remittance marketplace, changes in the company culture were inevitable. In bridging the culture chasm which often hit start-ups around the third or fourth year of founding³⁸, Nium adopted the Cultural Transformation Tools³⁹, a set of cultural diagnostics and values assessment instruments in facilitating the measurement and institutionalisation of the company's culture.

More than 200 Nium's employees participated in a values assessment exercise in 2019, followed by a workshop attended by senior leaders and cultural champions, who were designated to lead the cultural transformation across the company.⁴⁰ The new value system was unveiled along with its rebranding exercise.

Charting a Sustainable Growth Trajectory

³⁷ InstaReM, "InstaReM Launches in Europe, Determined to Bottom out the Market on Behalf of Consumers", June 19, 2018, <https://www.instare.com/blog/news/press-releases/instare-launches-in-europe-determined-to-bottom-out-the-market-on-behalf-of-consumers/>, accessed June 2019.

³⁸ David Niu and Mark Roberge, "How Morale Changes as a Startup Grows", Harvard Business Review, March 24, 2017, <https://hbr.org/2017/03/how-morale-changes-as-a-startup-grows>, accessed August 2019.

³⁹ Barrett Values Centre, "The Cultural Transformation Tools", <https://www.valuescentre.com/tools-assessments/>, accessed August 2019.

⁴⁰ Prajit Nanu, "Co-creating Culture of Instare with 280+ colleagues", InstaReM, August 5, 2019, <https://www.linkedin.com/pulse/co-creating-culture-instare-280-colleagues-prajit-nanu/>, accessed August 2019.

To sustain the intense competition in the digital remittance space, Nium adopted product development and market expansion as its key growth strategies.

Three Service Offerings: Send, Spend, Collect

Pratik shared,

There are three main parts that we want to focus on. One, is 'Send', which we have done so far. 'Send' is about payment remittance made by consumers and institutions. The second is 'Spend', which is about our card business. Basically, it means that if any company wants to launch its own cards, we can help them do so within a few weeks' time. The third is 'Receive'. Let's say a company which does not have a presence in a country wants to accept payments from customers in that country. We can collect the payments through credit card, collate them and send them to whichever part of the world the company wants. As of now, we only have 'Send'. We will be introducing 'Spend' in Singapore, Australia, and the entire Europe. Similarly for 'Receive', you will get to hear of it soon.

In February 2019, Nium entered into a partnership with Visa, the card payment giant. Participating in Visa's fintech fast-track program would accelerate Nium's delivery of seamless money transfer experiences for its institution and retail customers using Visa's payment network. Nium also planned to issue privately-branded cards (both virtual and physical) for their partners in a fraction of the time, that is, four to six weeks instead of six to nine months.⁴¹

A Tale of Two New Markets: Japan and Indonesia

In terms of geographic expansion, Pratik said, "We have recently issued two more licences -in Japan and Indonesia. Once the business in these countries is operationalised, that will be another big thing".

Japan, the third-largest economy in the world by GDP, was largely supportive of fintech and e-payments, and had legalised bitcoin for sending remittances.⁴² Opportunities were abundant for money transfer operators as the nation was a major market for outbound remittances, hosting over one million foreign workers in 2016, who remitted US\$4 billion overseas in 2015.⁴³ With a continued projected rise in demand for foreign labour, Japan's digital remittance market was estimated to reach US\$30.3 billion by 2025, with the money transfer operator segment being the highest contributor at US\$13.2 billion.⁴⁴

Indonesia, on the other hand, was one of the largest inward digital remittance markets in Southeast Asia, as billions of dollars were sent home by migrant workers every year. Projected as a high growth sector (CAGR of 26.6%), the Indonesian market was forecasted to hit US\$12.4 billion by 2025, with the largest contribution coming from the money transfer operators (US\$5.4 billion).⁴⁵

⁴¹ InstaReM, "InstaReM's Card-Issuing Platform Enables Fintechs and Enterprises to Issue Their Own Branded Cards", July 5, 2019, <https://www.instare.com/blog/news/press-releases/instare-launches-card-issuing-platform-for-fintechs-and-enterprises/>, accessed June 2019.

⁴² Rachita Rake, "Asia-Pacific Digital Remittance Market: Opportunity and Industry Forecast", July 2018, Allied Market Research, retrieved from EMIS Professional database, accessed June 2019.

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ Ibid.

In Indonesia and the Philippines (another sizeable inward remittance market in Southeast Asia), transacting cash over the counters of brick-and-mortar money transfer operators was a common sight. Prajit saw the opportunity for yet another new product line,

Today, we are only offering bank-to-bank services, that is, from one person's bank account to another. Another way of expansion could be starting bank-to-cash services as well. So the Philippines is one country where we can start. There's a very high dependency on cash and most people don't have bank accounts. The same goes for Indonesia.

Exciting Times Ahead

In a move viewed as one of the biggest liberalisation initiatives of the financial industry, the Monetary Authority of Singapore (MAS), the nation's central bank, announced the issuance of up to five new digital bank licences in 2019.⁴⁶ According to MAS,

The five new digital bank licences will comprise –
(a) up to two digital full bank licences, which allow licensees to provide a wide range of financial services and take deposits from retail customers; and
(b) up to three digital wholesale bank licences, which allow licensees to serve SMEs and other non-retail segments.⁴⁷

The new digital bank licences would be extended to non-bank players to cater to the underserved segments, as the existing locally-incorporated banks (including the three major banks, DBS, OCBC, and UOB) had been given the green light to establish digital banking subsidiaries in an earlier policy introduced in 2000. Applicants to the full licences would need to be headquartered in Singapore and controlled by a Singapore company, while wholesale license applicants would not be subjected to any eligibility criteria.

In March 2019, the Hong Kong Monetary Authority had issued its first batch of three virtual bank licences⁴⁸ while the UK had granted digital bank licenses back in 2016⁴⁹.

Said Prajit, “We may try for a digibank in one of the countries in which we operate”.

One thing was crystal clear: Nium looked poised for remarkable growth. Given the many challenges that Nium faced, how could the start-up overcome them and what would its growth trajectory be like in the near future? Raising the next round of Series D equity funding? Or growing to become a fintech

⁴⁶ Monetary Authority of Singapore, “MAS to Issue up to Five Digital Bank Licences”, June 28, 2019, <https://www.mas.gov.sg/news/media-releases/2019/mas-to-issue-up-to-five-digital-bank-licences>, accessed July 2019.

⁴⁷ Ibid.

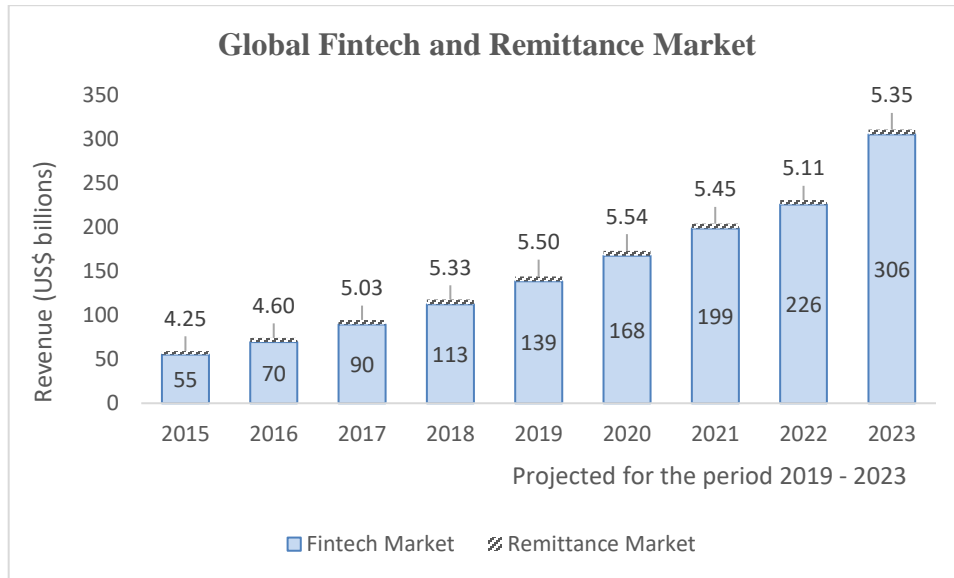
⁴⁸ Hong Kong Monetary Authority, “Press Release: Granting of Virtual Banking Licences”, March 27, 2019, <https://www.hkma.gov.hk/eng/key-information/press-releases/2019/20190327-3.shtml>, accessed July 2019.

⁴⁹ DLA Piper, “UK Digital Banks Open for Business”, December 8, 2016, <https://www.dlapiper.com/en/uk/insights/publications/2016/12/global-financial-markets-insight-11/1uk-digital-banks-open-for-business/>, accessed July 2019.

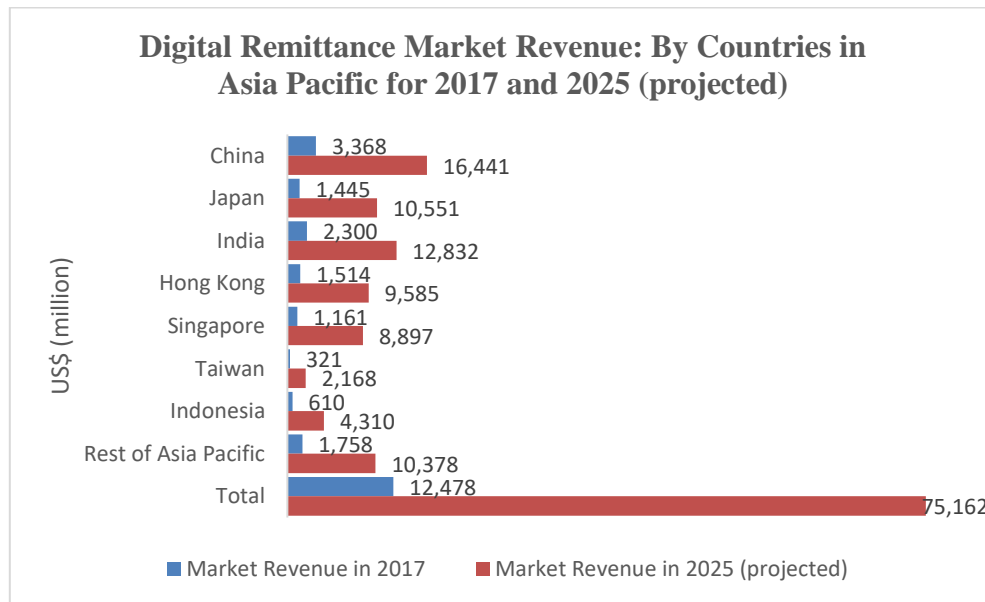
unicorn?⁵⁰ While Nium's ultimate grand plan seem to be launching an Initial Public Offering (IPO) in 2022-23,⁵¹ would the founders be moved by an attractive acquisition offer if it came along?

⁵⁰ A unicorn company was a start-up valued over US\$1 billion. The term 'unicorn' was termed by a venture capitalist, Aileen Lee, in 2013. Source: Minda Zetlin, "Why a Startup worth \$1 Billion Is Called a Unicorn? The VC Who Invented the Term Explains", Inc, Oct 25, 2018, <https://www.inc.com/minda-zetlin/unicorn-1-billion-valuation-vc-venture-capital-aileen-lee-cowboy-ventures-elite-universities.html>, accessed June 2019.

⁵¹ Vertex Ventures, "InstaReM Closes US\$41m Series C", March 19, 2019, <https://www.vertexventures.com/southeast-asia-india/2019/03/instare-m-closes-u41m-series-c/>, accessed June 2019.

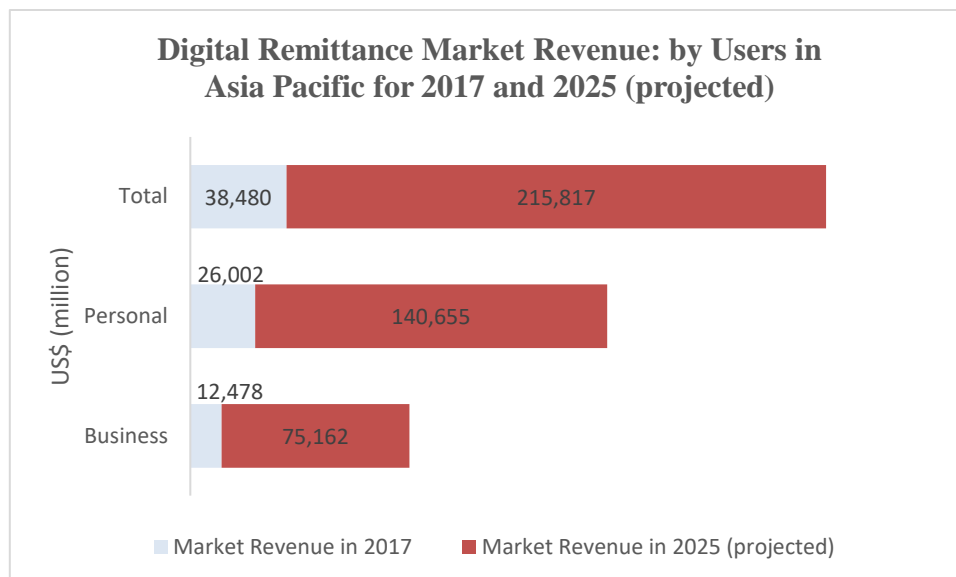
EXHIBIT 1: GROWTH IN THE GLOBAL FINTECH AND REMITTANCE MARKET

Source: Netscribes Global Reports, “Global Fintech Market: 2018-2023”, April 2019, retrieved from EMIS Professional database, accessed June 2019.

EXHIBIT 2: DIGITAL REMITTANCE MARKET REVENUE (BY COUNTRIES IN ASIA PACIFIC)

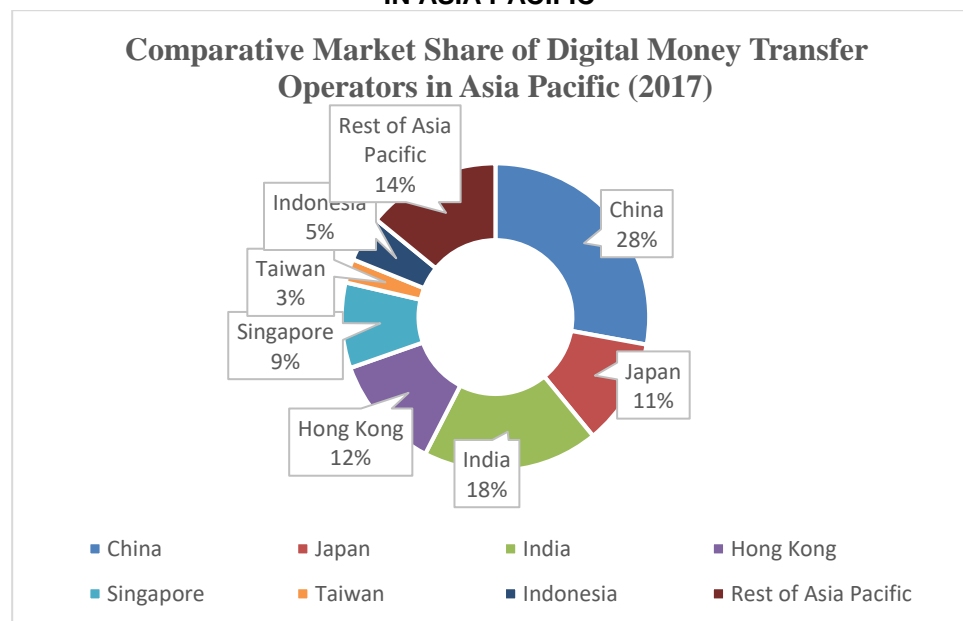
Source: Netscribes Global Reports, “Global Fintech Market: 2018-2023”, April 2019, retrieved from EMIS Professional database, accessed June 2019.

EXHIBIT 3: DIGITAL REMITTANCE REVENUE (BY USERS IN ASIA PACIFIC)



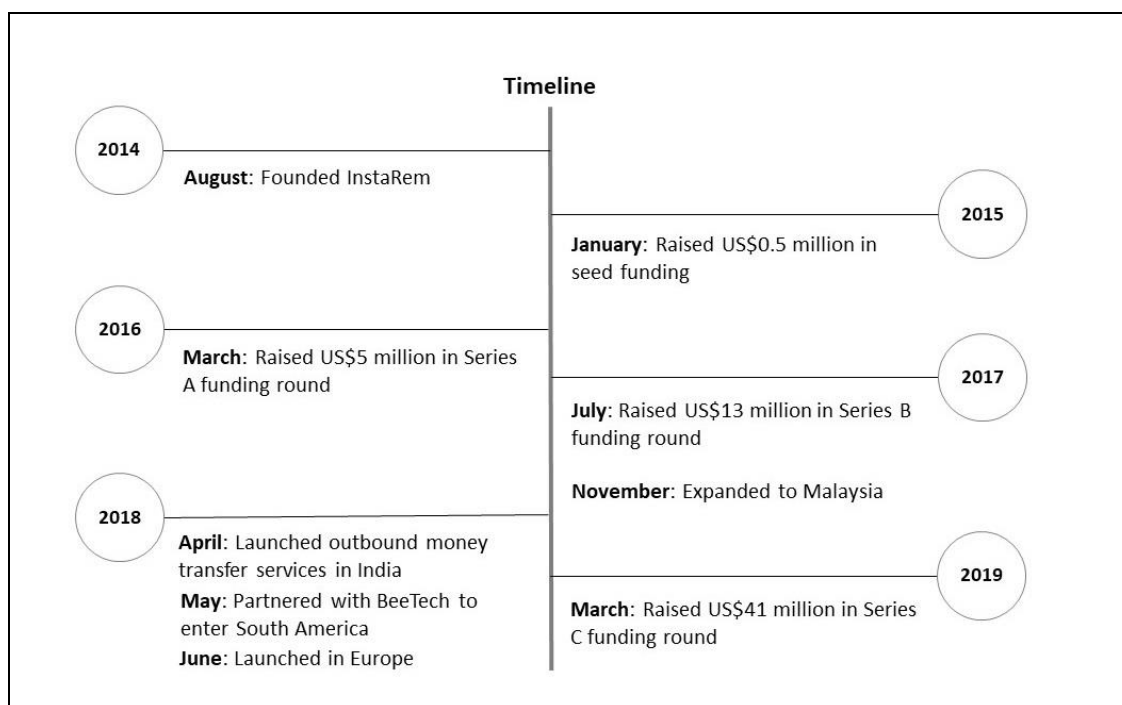
Source: Netscribes Global Reports, “Global Fintech Market: 2018-2023”, April 2019, retrieved from EMIS Professional database, accessed June 2019.

EXHIBIT 4: COMPARATIVE MARKET SHARE OF DIGITAL MONEY TRANSFER OPERATORS IN ASIA PACIFIC



Source: Netscribes Global Reports, “Global Fintech Market: 2018-2023”, April 2019, retrieved from EMIS Professional database, accessed June 2019.

EXHIBIT 5: TIMELINE OF NIUM'S MAJOR DEVELOPMENTS



Source: Developed by the authors using data from Nium's Blog, <https://www.instare.com/blog/>, accessed June 2019.

EXHIBIT 6: LIST OF CURRENCIES SERVICED BY NIUM

Pay-in Currencies		Pay-out Currencies	
AUD	Australian Dollar	AUD	Australian Dollar
EUR	Euro	BDT	Bangladeshi Taka
GBP	Pound Sterling	CAD	Canadian Dollar
HKD	Hong Kong Dollar	CNY	Chinese Yuan
INR	Indian Rupee	EUR	Euro
MYR	Malaysian Ringgit	GBP	Pound Sterling
SGD	Singapore Dollar	HKD	Hong Kong Dollar
USD	US Dollar	IDR	Indonesian Rupiah
		INR	Indian Rupee
		KRW	Korean Won
		LKR	Sri Lankan Rupee
		MYR	Malaysian Ringgit
		NPR	Nepalese rupee
		PHP	Philippine Peso
		SGD	Singapore Dollar

Pay-in Currencies		Pay-out Currencies	
		THB USD VND	Thai Baht Singapore Dollar Vietnam Dong