Bangladesh Emerges as a Distinctive Digital Hub for Emerging Technologies

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Defining Future Business Operations

Introduction

Bangladesh is one of the world's fastest-growing economies with an annual GDP of $249.7 billion[1] and a growth rate of 7.86% in 2018[2] with a stable growth rate of more than 6% for last five years. It is expected to be the second fastest-growing economy in the world going forward.[3] Its population includes 80 million people younger than 25 years old and more than 157 million verified mobile phone subscribers. This economic growth accompanied by a large, young, digitally savvy population and significant government-led initiatives, including the Digital Bangladesh program, make Bangladesh an attractive destination for emerging technologies.

HFS Research recently visited Bangladesh to investigate start-ups, digital-native businesses, and home-grown technology firms. The HFS team found a vibrant ecosystem in Bangladesh with strong support and commitment from the government, which is resulting in Bangladesh making exciting strides toward establishing itself as a hub for emerging technologies.

In this POV, we analyze Bangladesh's investments in emerging technologies, profile some of the most promising Bangladeshi digital players, and identify the challenges that Bangladesh will need to overcome to establish itself on the emerging technology world map.

[1] All currency is in US dollars.
[2] This rate is according to the Bangladesh Bureau of Statistics (BBS), 2018.
[3] "Bangladesh Development Update: Building on Resilience." The World Bank, April 9, 2018. https://www.worldbank.org/en/news/feature/2018/04/09/bangladesh-development-update-building-on-resilience.

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Emerging technologies are captivating the Global 2000 enterprises

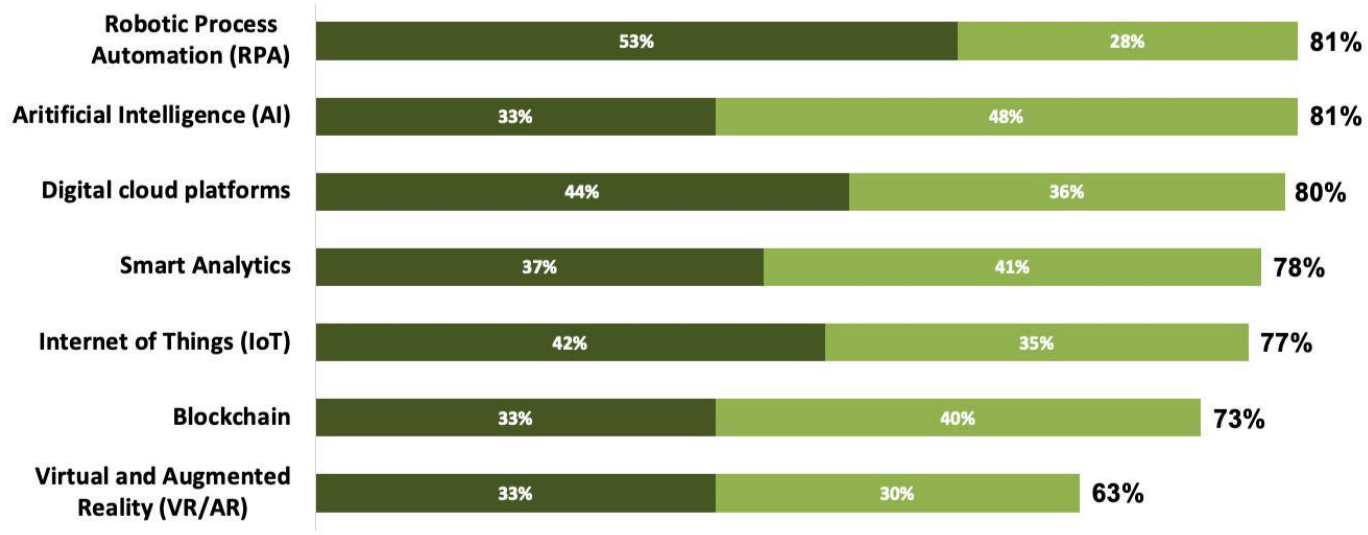
The digital disruption in recent years has meant that technology is no longer seen as merely an agent of "automation" employed to reduce costs across the enterprise value chain. Enterprises are leveraging technology to address top-line growth and to fulfill their ambitious objectives around superior customer experience, a more effective sales force, boundary-less internal organizations, real-time decision making, and innovative business and revenue models. As a result, there is a great appetite for digital technologies that can truly transform the way businesses operate and create a step change in effectiveness (see Exhibit 1). The emergence of robotic process automation (RPA), digital cloud platforms, artificial intelligence (AI), smart analytics, augmented and virtual reality (AR/VR), the internet of things (IoT), and blockchain is captivating Global 2000 enterprises.

Bangladesh has latched on to this changing world order. While it was a relatively late entrant in the world of IT outsourcing and BPOs, Bangladesh has made rapid strides in developing a thriving ecosystem of start-ups and emerging companies dabbling in advanced technologies. We see this as a well-timed move that eschews competing in spaces that are saturated and facing never-ending pricing pressure. Instead, the strategy is to leapfrog into whitespaces that offer prospects of unlimited growth and positive branding for the country's technology sector.

We met with the government of Bangladesh to discuss how it has been driving the thriving ecosystem and the challenges it has faced. We also interviewed representatives from several start-ups and technology companies in Bangladesh to gain insight into their capabilities and the available talent in Bangladesh. The result is an in-depth understanding of the ecosystem of emerging technologies in Bangladesh.

Exhibit 1. The investment and focus on emerging technologies

How much investment or focus is your organization making in the following in the next year to help you achieve organizational goals?



Sample: 381 Global 2000 Enterprise Leaders
Source: HFS Research, 2018

Large, young digital-savvy workforce with a strong entrepreneurial drive

The central value proposition for Bangladesh is its large, young digital-savvy population (80 million people under the age of 25), wide digital exposure (over 50% of its population subscribes to mobile services), large trainable talent pool (500,000 graduates annually), and entrepreneurial energy. The value proposition is enabled by the political commitment and the support that the government has been providing for emerging technology initiatives in its vision to develop Bangladesh as a hub of digital creativity and innovation. A cost advantage through labor arbitrage remains relatively attractive when compared with other technology destinations in South Asia such as the Philippines, India, or Vietnam, but it is not a unique selling proposition for Bangladesh. These factors and a strong entrepreneurial drive have resulted in innovative tech solutions for solving the country's unique challenges.

A government committed to establishing "Digital Bangladesh" with impressive ongoing investments

Bangladesh's Honorable Prime Minister Sheikh Hasina has declared the government's strong commitment to establishing Digital Bangladesh by 2021. The government has made significant investments including the plan for 28 high-tech parks, major tax breaks and incentives, and vital infrastructure spending to drive the growth of the technology ecosystem in the country. More recently, the government is under discussion with multiple global partners for establishing emerging tech Centers of Excellence (CoE) in Bangladesh. CoEs, which will provide the required state-of-the-art technology platforms and expert mentoring for local companies, will be an important catalyst to drive a vibrant tech ecosystem in the country. The government is preparing for an Artificial Intelligence CoE with a global partner next year, and it is driving discussions to establish multiple CoEs with global partners going forward in topics such as IoT and analytics.

Supporting Bangladesh's digital vision and driving the lively tech ecosystem in the country is an engine called the Leveraging Information and Communications Technology (LICT) project under the Bangladesh Computer Council (BCC) of the ICT Division. Launched in January 2013, the LICT's initiatives include talent re-skilling and up-skilling, IT and ITeS (IT enabled Services) industry promotion, and building the ecosystem for technology through multiple initiatives (e.g., CoEs for enabling emerging technologies [see Exhibit 2]). The LICT project is cognizant of the emerging technologies that will drive the future and is invested in charting the right path for the Bangladeshi tech start-ups and established companies.

Exhibit 2. The why, what, and how of the Bangladesh government's LICT project

LICT Goals:

- Catalyze the growth of Bangladesh's technology (IT/ITES) industry for employment creation and export diversification
- Cater to the needs of public sector modernization through development of policies, guidelines, e-government interoperability framework (eGIF) and capacity development of the government

Two Key Components of LICT

- E-government that's looking into the national enterprise architecture, cyber security, and other aspects for different government offices

- Developing the industry so that the private sector becomes more vibrant, more employment is generated, and more export business is created

LICT Key Initiatives (Non-exhaustive)

- Develop 34,000 skilled workers for technology (IT/ITES) sector
- Expose the global market to local capabilities , leading to improved global awareness and perception of Bangladesh's technology business
- Make available shared hosting and remote conferencing facilities to be used by GOB agencies and fix appropriate policies, standards and guidelines for technology, information security, and enterprise architecture

Some government incentives to promote emerging technologies:

- 100% corporate tax exemption until 2024
- 100% VAT exemption on rentals and utilities
- 50% personal income tax reduction for foreign employees for three years
- Up to 10% cash back of total export revenue
- Subsidized training programs
- Full repatriation of capital and dividend and no restrictions on foreign equity holding

Source: HFS Research, 2019

A thriving start-up ecosystem

According to BetterStories (an early incubator focused on building the start-up ecosystem in Bangladesh), more than 500 start-ups are working in Bangladesh with over 70% in digital native or technology businesses in e-commerce and delivery, education, content, transport, health, finance, SaaS, travel, big data, and software development. The government and private sectors are working together to facilitate ecosystem growth with seven accelerators, two incubators, and a $34 million government fund under Startup Bangladesh's Idea Project. The ecosystem is gaining further momentum through several national and international business incubation and acceleration programs, innovation hubs, hackathons, and an institutional focus on entrepreneurship. This ecosystem has resulted in great success stories with start-ups such as bKash, Pathao, and Sheba.xyz further pivoting the entrepreneurial landscape in Bangladesh.

Digital stars in Bangladesh to watch right across the innovation spectrum

HFS interviewed and profiled 10 exciting companies in Bangladesh (see Exhibit 3). We focused on homegrown providers of digital services and products. HFS found an enthusiastic and passionate group of entrepreneurs who are investigating and testing all emerging technologies described above.

A vibrant ecosystem is emerging in Bangladesh. Several digital platforms such as bKash, Pathao, and Sheba.xyz are now scaled up. The players we met have multiple ongoing initiatives across most emerging technologies including RPA, AI, blockchain, smart analytics, AR/VR, and IoT and are at different stages of investigating and piloting. In Bangladesh, AR/VR and IoT initiatives are further ahead than other emerging technologies. Exhibit 3 lists the exciting digital players that we interviewed in Bangladesh and the emerging technologies they are leveraging. Their ability to keep pace with the technological advancements will be a critical success factor for the future of Bangladesh's technology industry.

Exhibit 3. Exciting digital players in Bangladesh to watch out for (in alphabetical order)

Organization	Why is it interesting?	Emerging technology
bKash	• Driving mobile payments in Bangladesh with 31 million users and 4.5 million transactions daily • Recognized by Fortune as one of the "top 50 companies that are changing the world"	Digital platform
Bjit	• One of the fastest-growing technology companies in Bangladesh with an expected growth of 40%-50% in 2019 focused on AI, IoT, blockchain solutions • HQ in Tokyo and other branch offices across US, Germany, Finland, and Singapore • CMMI Level 3 and ISO 9001 certified company with more than 400 employees around the globe • Successfully delivered several blockchain projects for supply chain management and peer-to-peer lending • Undertaking AI and IoT projects in areas such as automatic speech recognition, web URL categorization, and smart wellness	AI, blockchain, IoT
bITS	• Building unique technology solutions for BRAC— the largest non-governmental developmental organization in the world with operations in 14 countries	RPA, AI

	• Software products include microfinance-focused ERP solution (used in more than 10 developing nations) • Has developed and implemented RPA solutions for BRAC Bank and has a strong focus on leveraging AI across solutions offered	
BRAIN STATION 23	• Has an impressive portfolio of client solutions across AR/VR, cloud services, and AI • Recognized as the top software company for the past three consecutive years by BASIS (a national IT association) • Growing at an impressive rate of nearly 30% annually • ISO 9001: 2008 and ISO 27001 certified company • Global presence with offices in the Netherlands, Denmark, Switzerland, Canada, UK, the USA, and the Middle East • 200 people strong with a portfolio that includes software development, outsourcing, mobile apps, AR and VR, cloud migration, e-commerce, and digital banking solutions	AR/VR, AI, blockchain
DataSoft® We Make Your Computer Meaningful	• Leading the charge in mobile app development, IoT, and augmented reality • Best known for revolutionizing Bangladesh's microcredit landscape with MicroFin360, which has 75% market share • CMMI Level 5 appraised, ISO 9001:2008 certified • Invested in dedicated IoT and AR labs and is actively working with smart car, smart home, and toll management projects	IoT, AR/VR
HEAD BLOCKS	• Start-up leveraging AI to solve complex local problems of traffic management and surveillance • Developed specialized solutions such as a contextual OCR and state-of-the-art video analytics and surveillance platform • Offers RPA implementation services on products like Selenium and UiPath	AI
leadSoft	• Successful technology firm with demonstrated blockchain and IoT use cases • National ICT Award for Best Local Vendor in Blockchain Capabilities • CMMI Level 5 and ISO 9001:2015 certified	Blockchain, IoT

loosely Coupled Technologies	• Start-up focusing on AI and cognitive assistants • Strong track record of delivering NLP, analytics, and cognitive assistant projects to multiple South Asian governments	AI, cognitive assistants
naztech consider IT solved	• Aggressive expansion plans to support explosive fintech demand growth in SMEs and developing economies • Client base includes Fortune 100 companies such as J.P.Morgan and Citibank • Active projects include transaction monitoring using machine learning, DLT, and blockchain technologies for digital wallets and global remittance and streaming analytics for real-time fraud detection	AI, smart analytics, blockchain
pathao	• Moving Bangladesh: The Bangladeshi Uber, and much more • 5 million customers and 200,000 drivers • $100 million valuation • Recognized as the "Startup of the Year" by Daily Star	Digital platform
sheba.xyz	• Digital marketplace for everyday services • Multi-faceted platform to bring all the moving parts of the service value chain (consumers, suppliers, and mediators) together digitally • Targeting 100,000 transactions by the end of 2019 • Accolades include the prestigious GP Accelerator, Innovation Extreme, Echelon Top Asia 100 for 2016, and National Startup Award 2017 • Strong focus on AI and cognitive assistants in the near future	Digital platform

Source: HFS Research, 2019

bKash—driving mobile payments in Bangladesh

bKash is Bangladesh's easiest and safest way to send or receive money, make payments, and recharge mobile balances nationwide. It is a successful example of entrepreneurship with a vision. Boasting 31 million users, bKash is changing the Bangladeshi mindset to drive digital adoption.

bKash's initial target client segment was the millions of people who came from financially constrained districts to cities like Dhaka in search of employment. They needed an easy and affordable way to send money home, and bKash provided it. bKash then expanded its services to offer mobile-based utility bill payments and mobile balance recharging. bKash is now providing mobile loan payments capability, so customers don't have to go to their bank branches to repay loans, offering considerable productivity savings.

bKash:
Facts at a glance

- Launched in 2011, bKash today has 31 million users.
- Investors: BRAC Bank, Ant Financial, Bill & Melinda Gates Foundation, Money in Motion, International Finance Corporation
- Alipay, the largest mobile payment platform in the world, has entered into a strategic partnership with bKash with 20% ownership.
- 4.5 million transactions are executed daily on the bKash platform.
- Services: bank transfers, cash in and out, sending money, making payments, mobile recharges, and remittances

Besides the convenience and cost advantage that digitizing payments offers to the consumers, bKash complements the banking system and Bangladesh government. It helps curtail the "cash economy" and brings a larger pool of money into the Bangladeshi economy. It also allows bank employees to focus on more significant and more complicated transactions and leave the management of small payments to bKash. In November of 2018, leading digital money transfer company WorldRemit announced that it is expanding its presence in Bangladesh by joining forces with BRAC Bank and bKash for digital money transfers.

BRAC IT Services—leveraging the latest technologies for BRAC, the largest non-governmental developmental organization in the world

Given its joint ownership across an NGO (BRAC) and a bank (BRAC Bank), BRAC IT Services can offer some differentiated offerings across emerging technologies. For instance, its microfinance solution sbiCloud is leveraged in more than 10 developing nations in Africa, Afghanistan, Pakistan, Sri Lanka, the Philippines, and Myanmar, among others. Its close ties with a leading commercial bank in Bangladesh also allow it to experiment with the latest technologies such as robotic process automation. It has already implemented a few bots at BRAC Bank and is starting to look beyond basic automation use cases that will also involve elements of artificial intelligence.

BRAC IT Services: Facts at a glance

- BRAC IT Services was formed in 2013 as a result of the merger between BRAC's subsidiary IT company Documenta Ltd. And the IT Division of BRAC Bank.
- Its focus is on the financial services industry, education sector, and Bangladesh's development sector (ready-made garments, service sectors, and SMEs); it offers software products, solutions, managed services, and consulting.

HeadBlocks—start-up leveraging AI to solve complex business problems

HeadBlocks: Facts at a glance

- Started in 2013 as a research based company and later transformed into an AI start-up
- Key products include FitFinder and AVNPR (automated vehicle number plate recognition)

HeadBlocks started in 2013 as a research-based company, (since AI technology was not fully evolved yet). Over the next three years, HeadBlocks immersed itself into research and innovation on AI technologies. It launched its first product, FitFinder, which matches people to job openings using AI-based algorithms. It is currently actively working on several AI-based research initiatives including automated vehicle number plate recognition (which aims to read Bengali letters), Bangla handwriting detection and recognition, and vision of things (which aims to use CCTV footage to count the number of people and their position and can control electricity consumption based on a building's occupancy). More recently, it has begun to offer RPA implementation services on products like Selenium and UiPath.

LeadSoft Technologies—successful technology firm with demonstrated Blockchain and IoT use cases

LeadSoft Technologies: Facts at a glance

- LeadSoft Bangladesh Limited delivers software products and services to clients in Bangladesh, Japan, Denmark, and Norway
- CMMI Level 5 and ISO 9001 :2015 certified
- Industries served: capital market, merchant bank, insurance, manufacturing, and distribution
- National ICT Award for Best Local vendor in Blockchain capabilities

NCR Bangladesh began developing a branch banking application software called PcBANK in the mid-1980s. LEADS, as the successor, upgraded the package as an integrated banking application software, which was available in a client-server environment and gradually evolved to a reliable core banking solution, BankUltimus. This software is currently being used by 15 commercial banks in over 400 branches. On this strong foundation, LeadSoft is now developing successful use cases in emerging technologies such as blockchain and IoT. Its blockchain services include digital identity management, DApps development, custom Blockchain development, and smart contract development. It is working on several blockchain projects including the Leads EduChain, a platform for issuing and verifying digital certificates, and Pharma Chain, which tracks and traces pharmaceutical products. LeadSoft is exploring IoT use cases for industrial IoT (smart manufacturing, smart warehousing, asset tracking and monitoring, and remote monitoring and predictive maintenance), agriculture, and environmental monitoring.

Pathao—moving Bangladesh: the Bangladeshi Uber and much more

Pathao: Facts at a glance

- Bridging the gap between offline and online
- 5 million customers and 200,000 drivers
- $100 million valuation
- Recognized as the “Start-up of the Year” by the Daily Star

Pathao is the most trusted community-fueled mode of transport in Bangladesh. It offers ridesharing and door-to-door food deliveries. It is the sixth attempt at a start-up by Hussain M Elius, the founder and CEO of Pathao. Pathao started in 2015 as a delivery and courier company using a fleet of motorcycles, which was also used for transportation during off-peak hours. The services offered are motorcycle and car ridesharing, door-to-door food delivery, and parcel and e-commerce deliveries. It started focusing on ridesharing in 2017 when it launched its mobile app.

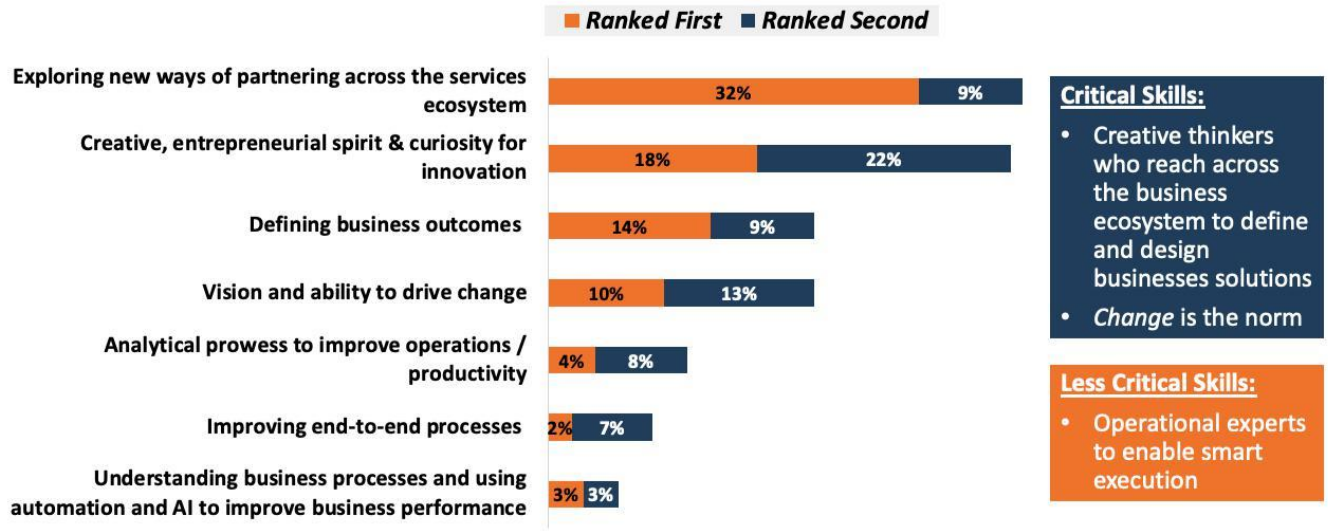
It has since started other services such as car ridesharing, food delivery, C2C deliveries, and more. It has plans to expand beyond Dhaka to all over Bangladesh. It's the market leader on motorbike ridesharing, food delivery, and e-commerce deliveries. Pathao is leveraging a smart digital business model to offer the middle class in Bangladesh cheap and affordable online-to-offline solutions.

Key Challenges and Way forward for Bangladesh

In summary, HFS found passionate entrepreneurs and a committed government. Bangladesh is on the right trajectory, but to be on the global map as a destination of choice for digital expertise, it has to do more. To realize its vision to establish Digital Bangladesh by 2021, the country will need to further invest in the following five areas:

1. **Invest in creative talent beyond technical skills.** LICT has successfully trained more than 34,000 people across different skills by leveraging its engineering talent pool. It now needs to focus on developing right-brained creative talent—the critical skill in an increasingly digital world where change becomes the norm (see Exhibit 4). The ability to keep pace with technological advancements will be a critical success factor for the future of Bangladesh's technology industry.

Exhibit 4. Top workforce requirements for Global 2000 enterprises



Source: HFS Research, 2018
Sample: 460 Global 2000 Enterprises

2. **Improve overall ease of doing business in Bangladesh.** Having an infrastructure that facilitates the ease of doing business is an important driver for an economy that is under tremendous growth. The digital world is driven by customer experience, which requires a simple and friendly environment for businesses to thrive. Finances are constrained in Bangladesh, and the external growth capital is still restricted by the government. Though Bangladesh has shown progress in improving the ease of business, there is a long journey ahead. The government has recently shown a strong commitment to improving the ease of doing business with the implementation of e-governance measures.

3. **Expand beyond Dhaka.** Dhaka has been the centralized hub for the development of emerging technologies in Bangladesh, which has resulted in pressure on the capital city. The government is cognizant of that fact and has started focusing on the development of other cities to distribute and scale-up its digital capabilities. For instance, a technology park has been developed in Kaliakair, and direct train line from Kaliakair to Dhaka is going to be operational soon**.**

4. **Build and protect intellectual property.** As the digital ecosystem matures, new challenges are emerging. Multiple fast-growing companies with exciting value propositions have emerged in a short span of time in Bangladesh. The government has been working toward developing guidelines for intellectual property protection and filing patents. Developing and then protecting IP will be critical to success in the digital future.

5. **Brand Bangladesh as a digital destination of choice internationally.** The companies that we met in Bangladesh have strong technical skills and highly skilled talent, and they have demonstrated their understanding of emerging technologies. However, these companies are still developing channels to promote themselves in the right target markets (such as the USA, Europe, and Japan). With skilled, cost-effective talent and an ecosystem of emerging technologies, there is a strong value proposition for Bangladesh to communicate. Going forward, governmental support will be required to brand and promote the Bangladesh value proposition to the external world.

Bottom line: Bangladesh is building an impressive ecosystem of emerging technologies. This is a strong start on the long and exciting road ahead

Bangladesh has the right ingredients to be successful in the digital world: a large population of engineering talent, a motivated government, a fast-growing economy, and an improving infrastructure. Since the start of LICT five years ago, Bangladesh has achieved quite a lot regarding digital connectivity, e-governance, and a mushrooming technology and start-up culture. But, Bangladesh cannot afford to rest on its laurels because technologies are evolving at a breathtaking speed. Bangladesh is at a juncture where it should not only play catch-up on emerging technologies but also invest in building an innovative, self-sustaining ecosystem that focuses on creative talent to build IP for the future of both Bangladesh and the world.

Appendix: Glossary of key terms

Key definitions used in the survey:

- Robotic process automation (RPA) as defined by IEEE is “preconfigured software instance that uses business rules and predefined activity choreography to complete the autonomous execution of a combination of processes, activities, transactions, and tasks in one or more unrelated software systems.”

- Artificial intelligence (AI) aims to automate intelligent activities that humans associate with other human minds through a combination of reasoning, knowledge, planning, learning, communication, and perception (aka cognitive). AI is used to describe multiple technologies such as machine learning (ML), computer vision, natural language processing and generation (NLP and NLG), and deep learning.

- Machine learning (ML) involves algorithms with the ability to learn (i.e., progressively improve performance on a specific task) with data without being explicitly programmed.

- Natural language processing (NLP) and natural language generation (NLG) technologies deal with interactions between humans and computers using human (aka natural) languages. These technologies are used to extract and interpret information from unstructured data.

- Cognitive and smart virtual assistants have learning, language, analysis, and processing capabilities that transcend basic conversational tools and technologies. They can be used externally to communicate with end customers for customer service inquiries as well as internally for HR, IT helpdesk, and other functions. Cognitive virtual assistants go beyond the standard rules-based logic of a chatbot or IVR-type interface.

- Smart analytics is the use of predictive and prescriptive analytics to improve human decision-making either by reducing the decision-making elapsed time or by improving the effectiveness of business choices with automated insights. Smart analytics often leverages ML and other AI technologies.

- Blockchain is a distributed ledger used to maintain a continuously growing list of records called blocks. Each block contains a timestamp and a link to a previous block. By definition, blockchains are inherently resistant to modification of the data. Once recorded, the data in any given block cannot be altered retroactively without the alteration of all subsequent blocks and collusion of the network majority.

- The internet of things (IoT) refers to data streams to and from connected physical devices as well as the delivery of data from and to centralized repositories by these physical devices, for additional interactions.

HFS Research authors

Phil Fersht | CEO and Chief Analyst

Phil Fersht is a world-renowned analyst, writer and visionary in emerging technologies, intelligent automation and robotic process automation software, digital business services, and the transformation of enterprise operations to drive customer impact and competitive advantage.

Fersht coined the terms "The As-a-Service Economy" and the "Digital OneOffice", which describe HFS Research's vision for business operations and the impact of cognitive automation and disruptive digital business models. In 2012, he authored the first analyst report on Robotic Process Automation (RPA), introducing this topic to the industry and is widely recognized as the pioneering analyst voice that have driven the evolution of the RPA industry.

Saurabh Gupta | Chief Strategy Officer

Saurabh oversees HFS' global research function managing the global team of analysts across the US, Europe, and Asia-Pac. He sets the strategic research focus and agenda for HFS Research, understanding and predicting the needs of the industry and ensuring that HFS maintains its position as the strongest impact thought leader for business operations and services research. As an analyst, Saurabh leads HFS' coverage of "horizon three" change agents such as blockchain, business services such as finance & accounting and supply chain, and overarching industry themes such as change and talent management.

Saurabh advises senior executives on business transformation initiatives with a strategic mindset and execution orientation. He has authored over 150 research reports, is a frequent speaker, and is regularly quoted in industry publications. He is well-known for spotting disruptive trends like As-a-Service, Cloud, Analytics, Robotics, blockchain and predicting their implications for different stakeholders. He brings to the table a combination of subject matter expertise and structured thinking with effective collaboration and communications.

Anirudh Pillala | Director

Anirudh manages HFS' research process including Top 10 reports, POVs and custom projects. He also supports alignment of sales and research teams as well as managing our India center. He is a Six Sigma certified professional and has managed Green Belt projects in resource management and process optimization. He is a Prince2 certified practitioner and has a blockchain certification.

He was associated with premier MNCs including, Henkel AG, KPMG and Capgemini, where he demonstrated competence to deliver productivity goals, increasing efficiency and improving process quality in critical as well as sensitive assignments. He has a sublime blend of professional experience in the Indian business arena and global management education from a premier European B-school. Anirudh received his MBA at WHU, Germany and Bachelor of Technology from Jawaharlal Nehru Technological University (JNTU) Hyderabad. Anirudh enjoys playing badminton and volleyball in his leisure.

About HFS Research: Defining future business operations

The HFS mission is to provide visionary insight into major innovations impacting business operations, including automation, artificial intelligence, blockchain, Internet of things, digital business models, and smart analytics.

HFS defines and visualizes the future of business operations across key industries with our Digital OneOffice™ Framework.

HFS influences the strategies of enterprise customers to help them develop OneOffice backbones to be competitive and to partner with capable services providers, technology suppliers, and third-party advisors.

Read more about HFS and our initiatives on www.HFSresearch.com or follow @HFSResearch.

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