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Productivity in Financial Service Sector

1. Overview and Trends of Singapore Financial Service Sector

Investors benefit from Singapore's sturdy business infrastructure, trade linkages, and global connectivity. The approximate 4 billion strong Asian markets are within a 7 hour flight time from Singapore. International travel is convenient, reinforcing Singapore's reputation as a strategic link and gateway for global investors.

The Singapore Financial Centre is recognised for its:

- Sound, stable location for investments and business location.
- Triple-A rated economy.
- Strong growth potential.

Value Proposition of Financial Centre

Singapore's location in the heart of Southeast Asia enhances its ability to serve the fast-growing markets. The financial institutions trade foreign exchange and securities 24 hours a day with Asia-Pacific, European and American centres. Free Trade Agreements (FTAs) exist with major economies including China, Japan, Australia, Korea, Switzerland, and the United States. The FTAs provide privileged access to the markets of partner countries. Financial institutions benefit from:

- Excellent infrastructure.
- A pro-business environment.
- Highly skilled, cosmopolitan labour force.
- Cost-competitiveness.

Growth of Finance & Insurance Sector

According to the Ministry of Industry (MTI) report for 2015, the finance & insurance sector posted growth of 7.1 per cent year-on-year, extending the 7.8 per cent growth in the previous quarter.

Growth was largely underpinned by the fund management segment. On a quarter-on-quarter seasonally-adjusted annualised basis, the sector grew by 2.5 per cent, after contracting by 12.8 per cent in the preceding quarter.

Megatrends and Financial Services

According to the World Economic Forum Report June 2015 on “The Future of Financial Services How disruptive innovations are reshaping the way financial services are structured, provisioned and consumed”, 11 key clusters of innovations based on how they impact the 6 core functions of financial services were identified. The first consolidated taxonomy for disruptive innovation in financial services is shown in Figure 1.



Figure 1: 11 Clusters of Innovation in 6 core financial functions

Source: <http://www.weforum.org/reports/future-financial-services>

Financial innovations are affecting financial services in areas such as primary accounts and payments.

In its “Cleared to Take Off” article, Deloitte identified 5 mega trends that will change the financial services. These include:

1.1 Primary accounts

Due to changing customer preferences, direct banks will consist of ATMs rather than brick and mortars structures.

Mobile banking and apps respond to consumer demand for photo bill payment, peer-to-peer money transfer, and voice recognition. The banking is and will be customised and customer driven.

1.2 Cashless Payments

A cashless world where customers prefer payment cards over cash, with the processes concealed from end customers. Merchants, service providers, and financial institutions will learn more about the businesses and customers with whom they work. Possible credit card displacement means retail financial institutions will lose profit provided by credit card borrowing.

They need to develop methods to promote customer loyalty and bring in fees while remaining competitive. Digital wallets and a single default card will benefit the consumer.

1.3 Distributed Capital Markets

There will be distributed capital raising platforms due to empowered customers and growing connectivity.

1.4 Investment Markets

Online tools will automatically analyse customer's financial position and recommend customised solutions.

1.5 Insurance and the Internet of Things

Connectivity of devices and advanced analytics will bring about telematics insurance models. Telematics insurance products enable auto insurers to collect usage and behaviour data of their customers in real time or near-real time through GPS technology and wireless communications. Insurers could charge customers' premiums based on their usage of the vehicles and current driving behaviours instead of typical fixed premiums, given the strong correlation between usage of vehicles and risks.

2. Challenges in Financial Service in Singapore

Iron Mountain Incorporated identified 4 key challenges in the financial sector. The financial services industry must change to meet the challenges of customer service, driving efficiency and cost reductions, compliance demands, and making the best use of technology.

2.1 Discerning customers are defining customer service as a crucial element in their choice of financial institution and expects that 'service must be innovative and flawless'.

2.2 Security is an additional challenge. IT departments must provide support for compliance, regulations, risks, and evolving business models. At the same time they are tasked with improving manageability and efficiently, meeting time-to-market goals, handling budget constraints, and strengthening the security of customer information.

2.3 Doing more with less is an on-going challenge. It is suggested that professional staff would be more than a quarter (26.5 per cent) more productive if they could find information and documents as quickly and easily as they find information online. Hence the case for scanning digital copies of all documents is getting stronger.

2.4 Improper management of data rapidly creates a liability that is difficult to resolve. As more data is generated by information systems, standards must be established and followed for regulatory compliance, performance management, and risk management.

It is a way of gaining a competitive edge over the competition by tapping into the data and translating it into useful business information to direct further activities. During 2013, Asia Pacific organizations stated that approximately 45 percent of financial institutions intended to invest in big data within two years. This action includes understanding customers more clearly based on data from social media activities, which will improve the ability to capture the consumer market.

3. Enablers and Disruptive Technologies

Disruptive innovations are reshaping the way financial services are structured, provisioned, and consumed. Big data, peer-to-peer lending and crypto-currencies stimulate the imagination of investors, customers, and financiers. Risks and opportunities are being explored, causing financial services to consider the best way for structuring, delivery, and use.

People are being directly connected to one another on a large scale. The old measure of economic barriers is in a state of flux as former out-of-reach financial services are made available to lower-income consumers.

3.1 FinTech

A frequently used term for companies that provide or facilitate financial services by using technology, provide direct products and services to end users, often through online and mobile channels. FinTech is seen as a game changer in the funding for small medium enterprise (SMEs). 5 key solutions as shown in Figure 2 can have enormous positive effects on an SME's balance sheet situation, leaving small businesses with more cash, improved working capital management, and more stable and secure funding. There are: marketplace (peer-to-peer) lending, merchant and e-commerce finance, invoice finance, supply chain finance and trade finance. Figure 3 shows a process flow of a simplified FinTech-based supply chain.

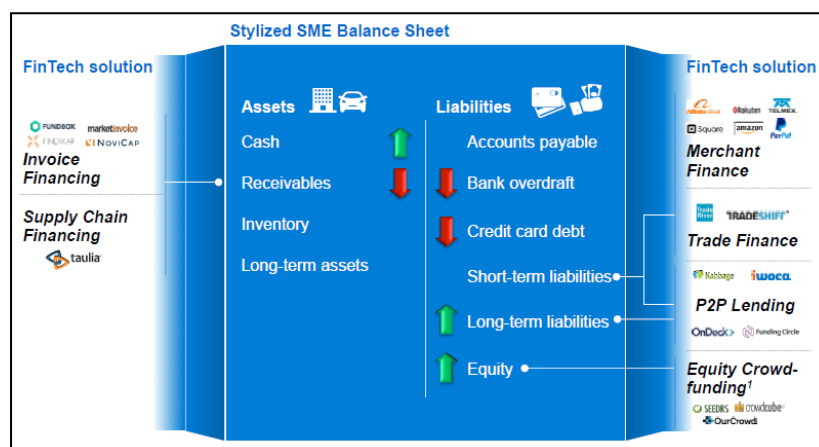


Figure 2: Impact of FinTech Solutions on SME Balance Sheet

Source: <http://www.weforum.org/reports/future-fintech-paradigm-shift-small-business-finance>

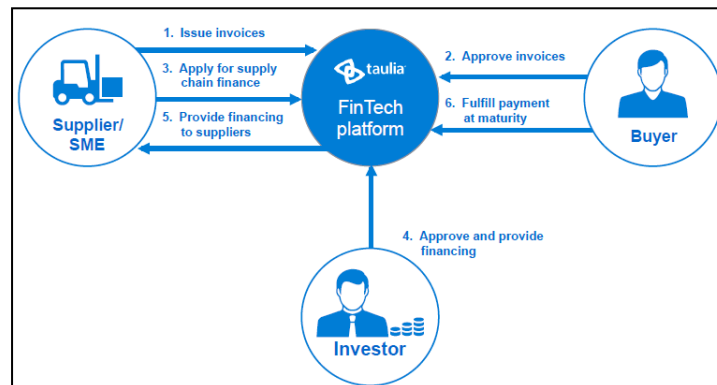


Figure 3: Simplified FinTech Supply Chain

Source: : <http://www.weforum.org/reports/future-fintech-paradigm-shift-small-business-finance>

3.2 The Uberization of Banking

The financial services industry has the ability to outrace disruptors by changing their own disruptors. Adapting to banking changes means:

- Turning into customer advocates.
Financial institutions can focus on and learn about their customers. Delivering what they need and want will create a positive outcome in their financial life and built good customer relationships.
- Becoming digital delivery platforms.
Efficient use of technology by focusing on operations creates seamless service delivery to customers.
- Understanding that change is a good thing.
This is not the time to rest on previously earned laurels. As new models enter, former successful businesses will fade away. New data and practices require thoughtful, deliberate change. Possible changes include allowing technology to handle the paper pushing and training advisors and agents to offer friendly, valuable advice and expertise to customers. Opening an account on a mobile device should be an easy process and earn the same excellent, friendly customer/business relationship previously offered to influential customers.

3.3 Digital Banking

McKinsey research in personal financial services shows that Asian consumers are becoming more and more comfortable with using mobile and Internet channels for banking services. Their use increases on average by more than 35 percent in the past three years. Correspondingly, there is a drop in branch usage of 27 percent across Asia. At a few leading banks, nearly 20percent of key product purchases are now completed online.

True digital banking is more than the provision of financial services through mobile and Internet channels. The technology so widely adopted by consumers has powerful capabilities, such as greater bandwidth, advanced data security, and stronger privacy protection. These offer new opportunities for banks. Digital banking signifies completely new propositions: not only new products and services but also the possibility of a more sophisticated, digitally enabled sales force and cost savings through end-to-end process digitisation. Figure 4 shows the 4 components of a digital banking strategy.

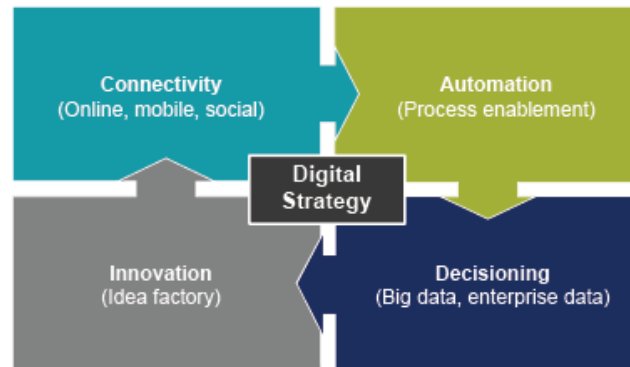


Figure 4: Components of Digital Strategy

Source:

<http://www.mckinsey.com/~media/mckinsey%20offices/singapore/2014%20digital%20banking%20in%20asia%20-%20winning%20approaches%20in%20a%20new%20generation%20of%20financial%20services.ashx>

4. Possible Immediate Actions

FinTech & Innovation Group (FTIG)

The Financial Sector Technology & Innovation (FSTI) scheme is one of the programmes involved in establishing Singapore as a smart financial centre. The managing director of the Monetary Authority of Singapore (MAS), Mr Ravi Menon, said the MAS is developing a regulatory approach to strengthen cyber security and creating initiatives to support the adoption of new technologies, such as smart surveillance and digital payments systems.

To help further the Government's objective for a "smart nation", a \$225 million initiative has been targeted to help set up innovation labs at financial firms and fund infrastructure for financial technology (FinTech).

Swiss bank UBS and Metlife have applied for FSTI funds to set up innovation labs, while other financial institutions have already established centres. The finance industry is rapidly changing with FinTech such as cloud computing, learning machines, and digital and mobile payments.

High Court Justice Lee Seiu Kin noted the law must evolve with technological developments in the finance industry in order to:

- Prevent rogue practices.
- Disrupt technology-enabled crime.

Self-checkout facilities at stores and restaurants require new payment technologies like fund transfers using mobile numbers or social networks and electronic direct debit authorisation. A unified point-of-sale mobile terminal system should also be developed.

New techniques and skills will eliminate some financial sector jobs while creating new ones. The MAS will work with training providers, the industry and the Institute of Banking and Finance to support training opportunities.

Case Study

Case Study: Singapore – Eye Tracking Facilitates Customer Experience Design (DBS)

NUS-ISS partnered with Objective Asia Pte Ltd, an eye tracking consulting company, to promote the value of service design and how to design a better customer experience. Customer experience research was conducted for DBS Bank, which offers retail banking services in Singapore.

The bank's marketing division wanted to better understand:

- Their customers.
- The context of use of bank branch services.
- How products and merchandise attracted customers and promoted brand image.

Banking innovation demonstrates how financial institutions are motivating progressive advancements in areas such as Singapore. Financial Technology (FinTech) describes the efficiency of operations through technology using and developing disruptive and innovative services and products.

Innovation labs in banks are using eye tracking as a means of understanding consumer behaviour. It's a unique way to investigate the subconscious level of processing by humans. Retail branches, mobile apps and websites are three main product areas of research.

Designers and consumers often have different ideas of how to interact with products. Customers are asked to provide feedback as product prototypes are developed. Changes can be made quickly to increase positive brand recognition.

Observers, typically the stakeholders and product team, conduct eye tracking usability testing by watching the test participants in real time. Focusing on subconscious eye movements lets them decide how a product interface or service experience can be changed to satisfy the customer.

Benefits of the testing program include:

- Problems are recognised quickly.
- Participants continue tasks until testing is completed.
- Test participants discuss experience with facilitator in an exit interview.

Citibank in Singapore uses Tobii eye trackers in their innovation labs. There is also the opportunity to test a service or product in a natural environment, using the wearable Tobii Glasses 2. Singapore's DBS Bank used the glasses to find out what customers looked at while waiting for their relationship managers to arrive in the cubicles. The results indicated how marketing information, such as posters and brochures, should be displayed. It provided understanding of how customer behaviour is affected by subconscious processes and how the bank can respond to expectations.

Eye tracking produces unbiased research that permits financial institutions to improve and understand customer relationships. Businesses, designers and technical teams are able to engage with customers and improve their services and products using this type of high tech equipment. Figure 5 shows a eye tracking facility.



Figure 5: Using eye tracking for product innovation

Source:

http://www.objectiveexperience.com.sg/pdf/Eye_Tracking_Facilitates_Customer_Experience_Design_A_case_study_of_DBS_Bank_Singapore.pdf

Case Study: Global - Consumer Gadget, Accessory or Wearable into a Payment Device (MasterCard)

A new way to use a credit card virtually anywhere in the world was announced on October 26, 2015 by MasterCard. Purchasing a huge variety of consumer products as well as paying towards the bill will be easier than ever. Fashion, technology and automotive items are an example of forthcoming payment options that provide shopping freedom for consumers with the assurance of the highest level of security.



MasterCard partners with designer Adam Selman to design the next generation of payment wearables. The payment-enabled dress and accessories are modeled by Kelly Rohrbach.

Figure 6: Payment-enabled dress and accessories

Source:

<http://newsroom.mastercard.com/press-releases/mastercard-launches-new-program-that-can-turn-any-consumer-gadget-accessory-or-wearable-into-a-payment-device/>

General Motors, Nymi (wearable technology innovator), and TrackR (Bluetooth locator) are just three of the manufacturers partnering with the new financial procedure. The Internet of Things (IoT) continues to change interaction and transaction habits of consumers. Any consumer gadget, accessory, or wearable can be used as a payment device. It is expected at least 50 billion connected devices will be in use by 2020. Key fobs, rings, and wristbands are examples of the different look that payment-enabled devices will take.

Adhering to the vision of the MasterCard Digital Enablement Service (MDES) and the Digital Enablement Express (Express) program, every device can be used as a commerce device. A payment-enabled process will result in millions of MasterCard accounts that work seamlessly together.

Capitol One looks forward to offering this payment experience to consumers. Fashion designer Adam Selman notes the opportunity to add to the fashion experience by creating an innovative way for consumers to include their card as part of their apparel.

5. Conclusion

The financial services sector is embracing disruptive technologies to keep ahead of competition. Through a survey of 200 executives at banking, securities, insurance, and investment management firms around the world, Deloitte Touche Tohmatsu Limited found that they are adopting new ways to attract and keep the best of a 21st century workforce, taking on digital initiatives across a spectrum of operational areas, with an eye to profitability, compliance, and a superior client experience. The infographics in Figure 7 summarises the key results of the survey.

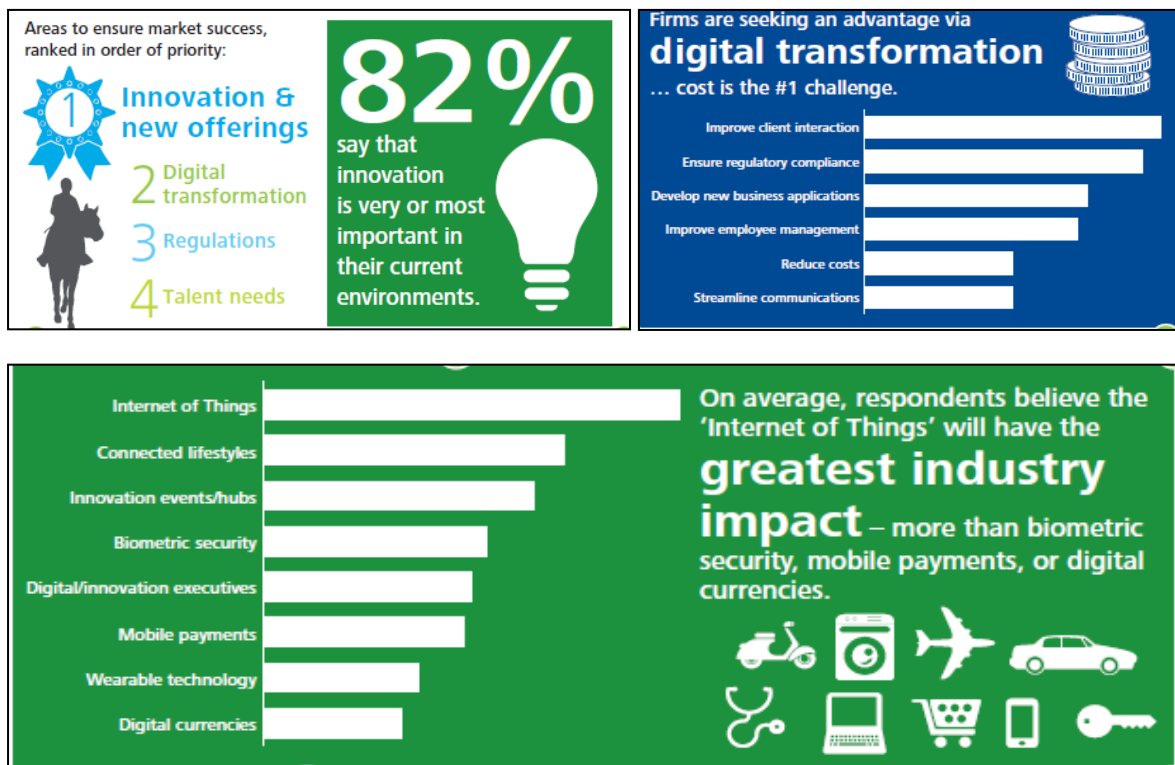


Figure 7: Survey results of Financial Executives

Source: <http://www2.deloitte.com/sg/en/pages/financial-services/articles/staying-ahead-of-the-pack.html>

Recommended Readings

Title	Virtual Banking: A Guide to Innovation and Partnering
Author(s)	Dan Schatt
Publisher	Wiley
Year of Publication	2014
ISBN	978-1118742471

Title	Digital Bank: Strategies to Launch or Become a Digital Bank
Author(s)	Chris Skinner
Publisher	Marshall Cavendish International (Asia) Pte Ltd
Year of Publication	2014
ISBN	978-9814516464

Title	Innovation in Financial Services: A Dual Ambiguity
Author(s)	Anne-laure Mention, Marko Torkkeli
Publisher	Cambridge Scholars Publishing
Year of Publication	2014
ISBN	978-1443866767

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