

Managing Innovation and Technology Transfer Project for Maybank

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Abstract

Innovation and technology are one of the most crucial aspects of organization growth. It determines the propensity of the firm to adapt and change itself with the dynamic world and the ever-volatile market. The world before globalization gave little importance for innovation in businesses that are not involved in technological manufacturing or output. However, over the years the notion has changed drastically. More and more firms have embraced the concept of innovation and technology within their systems. Banking and financial services have also come a long way to enhance their security and service with effective utilization of innovation and technology in their workplace.

Keywords

Innovation , technology , management , banking , financial.

1. Introduction

This report focuses on the importance of innovation and technology management in the banking and financial sectors. The firm that has been chosen for this study is MayBank. It is one of the most organized banks in the world with branches across many continents. It is, therefore, important to state that the management has effectively utilized and managed innovation and technology in their business from a very early stage of operations. As a result, it has been able to establish a well-designed and organized payments system and client interaction and management systems. The following sections highlight these areas in further details.

1.1. Background of the Study

Technology and innovation have always remained the forerunner in industrial revolutions. It is due to the advent of technology that modern marvels of construction and lifestyle were developed. Over the years many industries have accepted that innovation is the vital aspect of growth. As a result, lots of firms have their Research and Development wings or departments to analyze how to improve their business and systems (Audretsch et al. 2016). In this backdrop, it is critical to state that banking and financial sectors have improved over the years due to the controlled and prudent use of technology in the process.

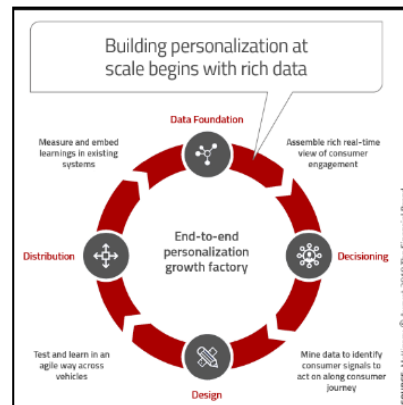


Figure 1: Innovation in Banking

Source: Influenced by (Lai 2017)

Payments system, client interaction, internet, and mobile banking are some of the few examples of how innovation has been managed by the industry to reach its present heights and expedite its growth in the 21st century (Adner & Kapoor 2016). The main aspect is firms and organizations related to this industry like MayBank can only expand and grow if it is adaptive to technology and change.

1.2. Scope of the Study

The scope of the study is in the alignment of business with technology and innovation. Banking and financial sector have been shortlisted for this purpose with special emphasis on MayBank. Due to this firm's immense popularity across the world and demands for its service, this report would help to identify the advent of innovation and management of technology in its operations.

1.3. Purpose of Study

The purpose of the study is to establish a relation with innovation and technology with banking and financial sector. The main idea is to identify how technological advances have helped the firms in this industry to grow. It will also analyze the business process of MayBank that has been infused and incorporated with the latest innovations in the research and development markets.

1.4. Objectives

The four objectives of this project are as follows:

- To identify the impact of innovation and technology in the banking and financial sector
- To analyze the impact of latest technologies in the industry's business operations
- To determine the latest technology that helps and may help the industry to grow further
- To provide recommendations on innovation and technology management to the firms

1.5. Company Overview

MayBank is the largest bank in Malaysia and one of the most influential universal banks across the world. It is the largest in Malaysia in terms of market capitalization. It is also the fifth-largest bank in the Asian region with total assets around US\$165 billion (MayBank.com 2019). As of 2018, it employs around 45,000 workers across key markets like Singapore, Philippines, and Indonesia. The bank started its operations with one building in Malaysia in 1960 and has expanded to over 24,000 branches across the world. The most important aspect is that the management has always promoted technology in all its operations.



Figure 2: Logo of MayBank Inc.

Source: (MayBank.com 2019)

MayBank is the first bank to initiate mobile banking services in Malaysia and have expanded the service to other locations as well. Therefore it is a pioneer in terms of technology management. In the late 2000s, the bank announced that it has started working on its double encryption digital footprint system that can help to track transactions easily across any platforms (MayBank.com 2019). This was a groundbreaking step especially since there was a rise in digital hacking at that time. It ensured that customer data is safe and secured within the boundaries of the bank security and servers.

1.6. Problem Statement

Technology and innovation have opened avenues for research and development of a system which previously was difficult to imagine. It has made the system of banking and financial service simpler and easy to access. However, with the growing affinity towards digitization and technological dependency, it has given rise to digital piracy and hacking especially across banking systems (Audretsch et al. 2016). In recent years, banks and financial institutions have faced issues of hacking and piracy.



Figure 3: Trends in cyber crime

Source: Influenced by (Nor & Pearson 2015)

Instances have cropped up globally like the stealing of 20 million credit card information from South Korean banks. Another instance of hacking was reported in target and Hold securities where the banking details of customers were accessed by the hackers. In this backdrop, it is very important that innovation and technology be used sensitively. MayBank's Fintech service is a prime example of such a system that aims at providing a safe environment for banking and financial transaction to be carried out (MayBank.com 2019).

2. Methodology

Various methods for project management related to technology and innovation can be introduced in this section. All these techniques are relevant for analyzing the management of technology and innovation in this study. It allows analyzing the requirements of the project with a specific entity and attributes for each task. These are provided below:

Agile Project Development: It is one of the project methodology tools that are used extensively for projects related to software development or technological developments (Lai 2017). In order to understand the various aspects of innovation and technological development that has transpired in MayBank, this tool provides the best framework for doing so.

Crystal Methods: It is a type of agile systems of project methodology that emphasizes the minute work procedures like information gathering and systematic innovation updates for project development. It also emphasizes on teamwork and performance rather than the process or result of the project to maintain quality at all stages.

Adaptive Project Framework: This methodology toll is one of the most used tools for project management. It allows for regular updating using scrums for meetings to meet daily targets called sprints (Pilkington 2016). In this case, it allows understanding the progress of MayBank in technology development and innovation designing as well.

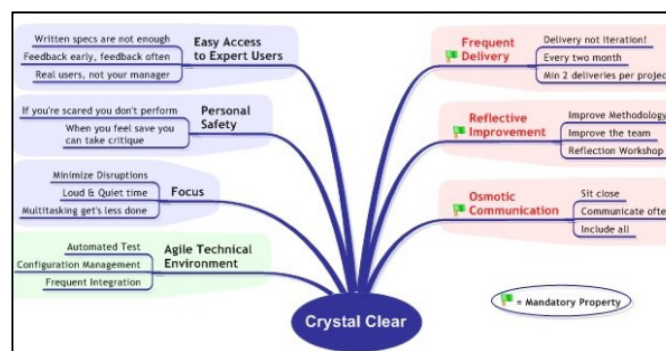


Figure 4: Structure of Crystal Method

Source: Influenced by (Pilkington 2016)

This project has proceeded with the application of crystal method for methodology. It is apt in this case because of result orientation framework and task-oriented processes for the project. The data was collected from relevant sources and was used for analysis. This simple step is backed by the fundamentals of the crystal method. Due to its agility in the system, it becomes very simple for infusing information on a need basis and therefore always leaves scope for adding further information later on as the project develops (Nor & Pearson 2015). In essence, the findings are focused on the teamwork of the researchers and the contribution of them in the project success. The other trivial matter that is neglected in this aspect is the actual, way of carrying out the process of project management using this method. In order to make the system and project path clearer, crystal method also allows for reflective improvement. Any preconceived idea or notion can be redesigned and re-iterated at any given time for the project is an agile and dynamic approach (Lai 2017). For a better understanding of the proceedings, there is effective communication to help other members clear doubts related to complex technological and innovation-related terms.

3. Data Analysis Method

The data analysis of the project related to the management of innovation and technology involves both qualitative and quantitative analysis. However, the data source is limited to secondary sources specifically so that relevant and ideated data can be analyzed for better understanding of the situation (Nor & Pearson 2015). At the same time, there are lots of advantages of using the data analysis methods for this particular study. The various theories that have been referred to here are the Diffusion theory of Innovation and Theory of

incremental innovation. Both these theories have a separate outlook to use of technology in its particular fields.

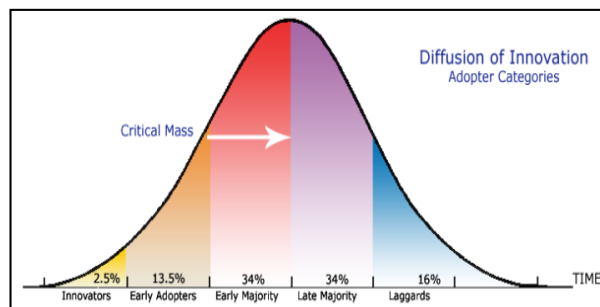


Figure 5: Diffusion of Innovation

Source: Influenced by (Donate & de Pablo 2015)

The diffusion theory of innovation states the origin of an idea that leads to a particular innovation and finally into new technology. It gives the ideas to this project that any firm striving for a particular technology or trying to start an innovation has a basic idea to start with. Hence the concept of R&D came about in the banking industry (Pilkington 2016). At the same time, it also provides information related to the technological diffusion in the banking sector that has helped them to develop the systems to its present situation.

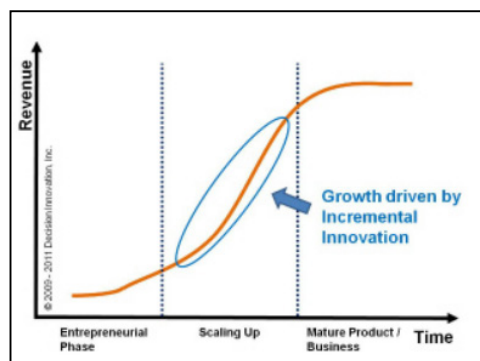


Figure 6: Theory of Incremental Innovation

Source: Influenced by (Sorenson et al. 2016)

The theory of incremental innovation also plays a critical role in this research. It helps to use the data to trade its incorporation in the system either as a sustaining or disruptive innovation. Banking and financial technology can be both disruptive like the introduction of Bank API numbers for cloud banking (Sorenson et al. 2016). It can be sustained also like internet banking that has developed over the years. A conglomeration of both theories helps in a more refined data analysis for this project.

4. Analysis of Technology in the Banking and Financial Industry

Technology has played a very structural role in the shaping of banking and the financial sector over the years. It is because of a technology that millions across the globe are able to do banking without even going to banks physically. MayBank also rose to prominence over the years with effective use of technology across all its sectors.

4.1. Emergence of Fintech Solutions and Programs or Banking and Finance

Fintech or Financial Technology is the biggest player in the introduction of technology in banking and financial sectors. The sole purpose of this branch in this sector is to design cutting edge technology that can assure safe banking norms and practice. MayBank has its very own in-house Fintech solutions that have been credited with the formation and registration of multiple banking technologies in the name of MayBank (MayBank.com 2019). It was initiated in the year of 2015 to bring together Fintech firms so that they can contribute to the development of this industry in a more significant way. Over the course of four years, it has achieved many goals like Fintech Firewall that is active across MayBank's servers for better security of bank data and financial assets (MayBank.com 2019). Thereby, it has helped the firm to attain customer trust and support in the banking business.

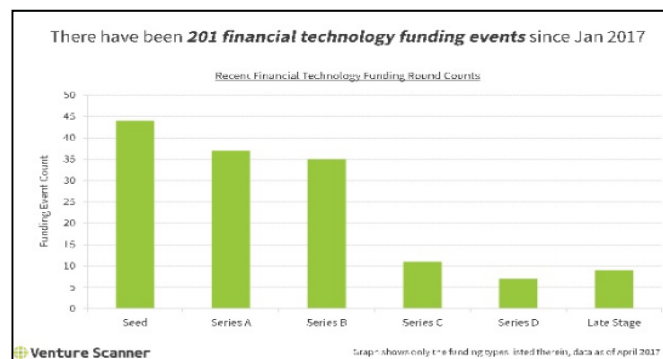


Figure 7: Funding in Financial technology

Source: Influenced by (Nor & Pearson 2015)

4.2. Incorporation of Cloud Banking and Mobile Banking in Financial Activities:

The modern banking methods are defined by cloud computing and internet activities. The sole purpose that has served MayBank over the years is the management's willingness to expand overseas outside the confinements of Malaysia and South-East Asia (MayBank.com 2019). The banking industry across the world has reached greater heights and banks and financial institutions have managed to expand due to greater penetration of internet and usage of cloud computing in banking. One of the most credible aspects of this system is that it is cheap and ergonomic at the same time. Majority of the people use mobile phones that can act as portable banks when the need arises. MayBank went a step further to start their mobile application even before other prominent Islamic banks in Malaysia (MayBank.com 2019). It helped the bank to interact with the customers on a more personal scale that eased up the business further with grace and quality.

4.3. Encrypted Digitization of Bank and Financial Records, Data and Credentials:

The greatest technological development in the banking and financial sector so far is the development of digital footprints for every transaction. One of the major reasons behind the development of this system is to prevent the onslaught of hackers and digital pirates operating across the Internet (Ruiz-Jiménez & del Mar Fuentes-Fuentes 2016). With the digitization at its peak, all the customer data, banking and personal are kept in digital data lakes in separate servers. In order to protect these servers, digital encryption techniques have helped extensively. It helps in encrypting the sensitive data preventing any data theft or banking piracy. MayBank uses in-house developed high-grade systems for encryption and storage large chunks of data across various stand-alone servers.

5. Innovation and its Impact on Banking and Finance

It is very important that banking and financial institutions are always innovating so that they stay ahead of internet hackers and digital thieves. In such a situation, it is crucial that the management is able to manage innovation effectively and align them with the latest technology as well.

5.1. Introduction of Blockchain Technology in Core Banking and Financial Processes

Blockchain technology is a thing of the future where banking will be free of scams and frauds with a clear indication of transaction paths and history. Due to the advent of digital currency, this technology emerged as the single most disruptive innovation across the banking and financial sectors (Adner & Kapoor 2016). The main advantages of this system are that unlike traditional banking records that can be deleted or altered, a Blockchain command once initiated cannot be deleted. As a result, if the bank is able to align the Blockchain system with its financial systems, the transaction record cannot be deleted. Therefore, it increases security, transparency, and accountability in the banking systems. MayBank Fintech services have promised the incorporation of Blockchain in their system by the year 2025 (MayBank.com 2019). Therefore, this system can act as the future of transparent banking that is both safe and cost-effective.

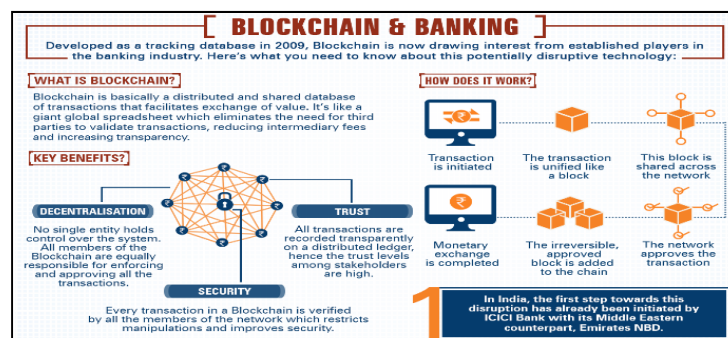


Figure 8: Funding in Financial technology

Source: Influenced by (Lai 2017)

5.2. Transaction Risk Management System using Big Data Statistics and Analysis

Big Data is another innovation that has significant benefits in banking and financial industry. One of the most crucial systems is the Transaction Risk Management System. This system that is in practices across many banks and financial institutions helps to monitor any potentially harmful transaction or risky business from anonymous clients over the internet (Ruiz-Jiménez & del Mar Fuentes-Fuentes 2016). However, due to the current interpretation of technology, this system is not fully exploited. Prominent banks like MayBank and HSBC have gradually started using Big Data as part of their data analysis systems that can help Transaction Risk Management System to yield accurate data. Apart from this, big data can also be used to understand customer expectations and design banking solutions as per their preference (Donate & de Pablo 2015). The significance of this system is still under development and it is the greater interests of the banks to expedite the process and incorporate it quickly.

5.3. Incorporation of Artificial Intelligence in Simple Stages within Banking Services

Artificial Intelligence or AI is the technology of the future with significant technologies being made every day. This path-breaking technology is responsible for the creation of next-generation systems using only machine knowledge without human intervention. AI can also be used in banking services. The banking industry across the USA, India and other European countries has become pioneers in the process with significant outputs (Audretsch et al. 2016). Few advantages include smarter chat bots that can understand customer expectations and needs. At the same time, it can also help banking professionals to take automated and calculated decisions in matters related to financial transactions. However, this system can also negatively impact the employment of an area as more and more employees will be replaced by AI systems for better work performance.

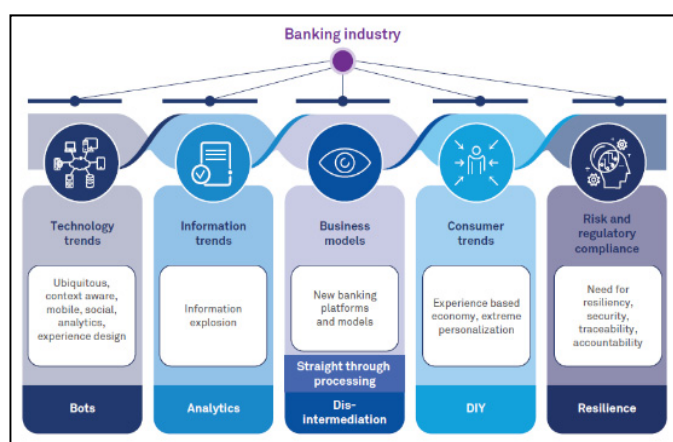


Figure 9: Use of AI in Banking Industry

Source: Influenced by (Audretsch et al. 2016)

6. Recommendations

As observed from the above section, I would like to state that innovation and technology go hand in hand. If there is a rapid and disruptive force in technology, it will give rise to future innovations as well. The below-mentioned solutions can be referred to for the improvement of the sector:

Focused data protection with backup: In order to overcome the challenge of data theft and digital piracy, it is advisable for the banks and other financial institutions to have a focused approach to data protection. It means that a concentric system can be developed with maximum security to most sensitive data and minimum security to expendable data. In my opinion, it is both cost-effective and saves the most critical data during any potential hacking episode.

Implementation of new technologies: In order to stay at par with the latest developments, all banks are advised to adapt and implement new technologies in their systems. It is vital because it helps in data protection and also helps to draw maximum clients to their services. Banks with old systems are left out and are more prone to data attacks. Adopting new technologies also opens the avenue for further innovation and development in focused areas like payments and loans.

7. Conclusion

It can be concluded that innovation and technology are important facets of the growth and development of a firm. Banking and financial sector develops with continuity of innovation at all stages of its life cycle. As observed in the case of MayBank, the management has embraced various innovative ideas and systems that have helped them to grow over the years. It is also necessary to state that only those technologies that have the propensity of growth and substantial growth should be promoted and implemented in the firm. Therefore, it helps to establish a system of efficiency in the banking process that further helps the stakeholders involve in it.

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