

Building a Revolutionary Breakthrough in Virtual Banking Innovation- Malaysian Banks Perspective

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Abstract: The purpose of this study is to understand how banks can build revolutionary breakthrough in virtual banking innovation by understanding customers' future banking needs and future banking trends by using Porter's generic strategies to build competitive advantage to maintain relevance and staying profitable. This paper will be a conceptual survey of literature and implications in implementation of generic strategies in banking industries. Through the study of literature, it is observed that Malaysian local banks are moving towards banking revolution in innovation to meet customers' future banking needs and this study identifies how Porter's generic strategy will assist Malaysian local banks in achieving its' competitive strategy. The banking industry in Malaysia has gone through series of transformation to remain resilient and relevant. Therefore, this paper focuses on uncovering strategies for a breakthrough in virtual banking services in Malaysia. It is suggested that future study to evaluate the significant contribution of Michael Porter's generic competitive strategies in virtual banking as a revolutionary breakthrough in virtual banking innovation for local banks in Malaysia. This paper presents a proactive way of understanding customers' future banking needs and thus, gives an insight to Malaysian local banks on the most prevailing strategies to remain competitive.

Keywords: *Revolutionary breakthrough; Virtual Banking; Innovation; Malaysian local banks*

I. INTRODUCTION

Amidst of all turmoil with an unprecedented financial crisis, Malaysian banking industries were among few to maintain resilience. However, due to changes in customers' expectation and technology revolution, Malaysian banks need to create a revolutionary breakthrough in virtual banking platform to distinguish themselves from their competitors and grow their customer base. Doukanaris (2016) stated that, corporate customers want flexibility, transparent and innovative solutions. The rise of multi-bank platforms and competition between banks have opened opportunities to non-financial competitors, who approach innovation with a different mind-

set that may be seen as a breakthrough in innovative edge. Hines (2016) viewed innovation as opportunities for banks to offer improved services in information processing and transparency, increased visibility over cash flows positions, cash-flow forecasting and a better risk management. Banks customers' sees innovation, not about incubators and accelerators, but about simplification, increasing usability, straight through processing and digitization.

The twenty first century development in innovation brought significant changes even in a customarily staid and stodgy field in banking services. ATM which is now known as an ancient invention compares to the recent development of "Robo-advises" in the financial industry have benefited banking customers. As a result, with the emergence in information technology, customers are enjoying the ability to move money virtually and to access their banking information. Hines (2016) stated that for global banks, lack of liquidity is stifling investment. As such, banks will remain focused on cost savings, then on, growth where most innovation in banking to date merely makes a manual process electronic rather than transforming it. Besides lack of liquidity, banks are held back by their internal compliance regulations, new competitors and growing customers demand. These forces are ratcheting up the pressure for most banks to innovate (Doukanaris, 2016).

The significance of this study is to build a revolutionary breakthrough in virtual banking innovation. The objective of this study is therefore;

1. To identify the initiatives of banks in Malaysia towards sustainability and growth.
2. To identify virtual banking breakthrough in innovative strategies.
3. To look at recent banking trends and studies being carried out to have a better understanding on customers' expectation and future banking needs.

This study will focus on Michael Porter's generic competitive strategies combines with digital innovations in various studies to assist the authors in finding a revolutionary breakthrough in virtual banking innovation. At the end of this study, it is hoped that this study will be able to provide insights to Malaysian

local banks on customers' future expectation on virtual banking solutions, suggestions on several strategic recommendations, and, can be used by future researchers to further evaluate the significant contribution of Michael Porter's generic competitive strategies in virtual banking innovation.

II. REVIEW OF LITERATURE

Industry structure drives competition and profitability is not limited to products and services it produces or solely by engaging in advanced technology. There are several factors which affect industry profitability and this may include economic influence, business cycle, industry nature and a company's manifestation in competitive forces. Therefore, by understanding the company's competitive forces and underlying causes, will assist a company to reveal the roots of its' current competencies and profitability which will provide a framework for anticipating in competition and thus, increase profitability over time (Porter, 1980).

Effect of technology transformation to banks and overall economic growth

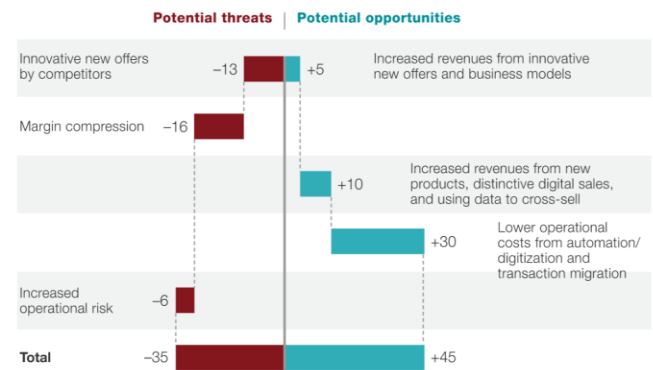
Service sector technology has gone through a dynamic transformation in the recent years and has greatly been influenced by a country's economic growth. The rapid evolution and transformation in technology, web-based services and high tech environmental services indicates that the impact of technology advancement can no longer be ignored but to be embraced with consistent evolution in innovation and breakthrough. Sanjay (2013) stated that the banking sectors in this twenty first century have gradually evolved into a market driven, competitive system as it is greatly being influenced by the liberalization of financial services and technological revolution.

In Malaysia, due to demand for efficient banking services which is faster, cheaper and simpler, Financial Technology (Fintech) has become an important topic of interest and has created a more efficient payment ecosystem (Fong, 2016). Introduction of Fintech is believed to create a more prominent business models to business, delivery channels will evolve to replace the existing channels and transaction costs will be reduced significantly. However, the Fintech revolution should be embraced as an opportunity to meet the revolution in technology innovation (Ibrahim, 2016). Maybank, CIMB Bank, RHB Bank and AmBank are the 4 largest banks in Malaysia embracing Fintech into their ecosystem to efficiently reach out to their customers (Fong, 2016).

Broeders and Khanna (2015) stated that institutions that resist digital innovation will experience a steep fall in net profit to as

much as 35%, whereas institution that successfully innovates, automate processes and use digital technologies will experience increased revenues by up to 40% as referred to Table 1.

Table 1: Digital Banking Innovation, Potential Rewards and Losses



Source: Bank's Strategic Choices in Digital Edge. McKinsey (2015)

Technology evolution will continue to affect every aspect of banks operation. Today, in many markets, movement of new entrance into the financial sector is inevitable. In China as an example, within the 2nd year after launching wealth-management platform, Alibaba has attained \$100 billion in assets. The importance of digitized payment solution sees more innovation from Apple Pay's contactless-payment technology (Denecker, Gulati and Niederkom; 2015). Therefore, it is crucial to create successful strategies based on how digital creates value on consumer behavior and how to carefully prioritize potential digital instrument (Broeders and Khana; 2015).

According to Broeders and Khana (2015), there are 4 fundamentals ways in which banks can use digital capabilities to create values;

1. Digital capability enables banks to effectively connect to its customers, employees and suppliers by the extension of online interactivity and payment solutions which has greatly improved mobile functionality and opportunities.
2. Digital technology provides advanced analytical platform which enables banks to use information collected for decision making, thus, gives customers the exact tailored services and price.
3. Digital technologies simplify processes; saves time, boost productivity and workflows.
4. Digital technology forms away of fostering innovation across all products and services and such crowd source support and digital centered business models.

However, for a complete digital transformation, high level coordination, planning and prioritization needs to be in place which include;

1. **Customized customer experience.**

Customer's journey and experience in using banking services should be highly differentiated and compelling, personalised, speed, and simplicity which includes applying as well as getting approval for banking applications.

2. **Personalization, data leveraging and advanced analytics.**

The advancement in technology has improved data collection. However, most data are still unused (Broaders and Khana, 2015). Applying advanced analytics to create targeted offerings will create great value if real time data being analysed, transformed into useful information to generate insights for banks to create next product or services tailored for individual customer.

Banks need to innovate and differentiate themselves from their competitors

The importance of continuous innovation and differentiation can no longer be ignored by Malaysian local banks. Flattening returns in the area of operation profits as well as return on assets and declining price earnings ratios compels banks to rethink their growth strategy from the inside out of the traditional banking industry, as it shows a declining confidence by the market on the bank's ability to grow. Besides declining returns, the emergence of new competitions for new players, consolidation among the largest banks most of the basic retail banking products and services forces banks to reinvent and innovate. Thus, innovation is the only way to achieve that (Goyal *et. al.*, 2016).

Porter (1998) stated that competitive advantage create value for its customers, which customers are willing to pay, and often, this value exceeds its own cost. These values are of often of superior benefit compared to what their competitors have to offer. Competitive strategies involves taking a defensive and offensive action to create a defendable position in the industry, and with generic strategies firms will be able to cope with the five forces in the industry and compete with its' competitors. Generic strategies include overall cost leadership, differentiation as well as segmentation strategy which, often, only one strategy has been pursued (Tanwar, 2013).

Business challenges today are making change imperative. Analysis and hedging about core systems transformation has to take place due to the market challenges which is currently impeding growth and business expansion, these include growth in mobile wallet, the need for new sources of revenue and the need to accelerate time to market for a new product or service, regulation imposed on businesses as well as banks after the financial crisis, increasing competition from new entrants such

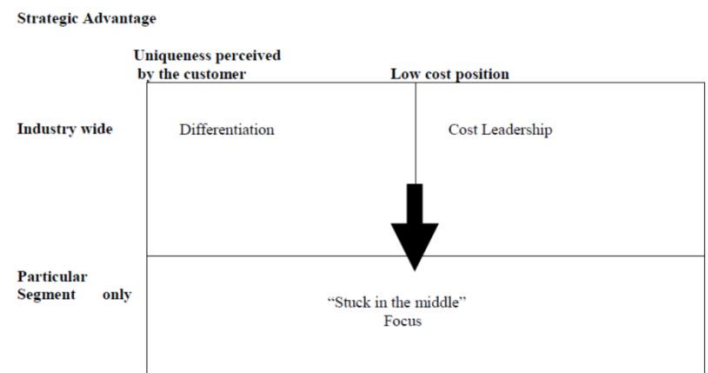
as Walmart and PayPal, banks' requirement for managing credit risk, complex environment, emphasises on total cost of ownership (TCO), the requirement for faster return on investment (ROI) and investment in information technology due to depleting capital.

Management decision to achieve their strategic visions affects its' competing firms as a whole. As such, firms have to fit into resource exchange and competitive action effort with other firms in an industry to form an adaptive system to remain competitive. The configuration of Porter's generic strategies differs by industry and this structure will determine the strength of Porter's generic forces. FIGURE 2 explains Porter's generic competitive strategy.

Porter's Generic Competitive Strategies

According to Michael Porter, firms may achieve sustainable competitive advantage in three fundamental ways. These include differentiation strategy, cost leadership's strategy and focus strategy. By being a cost leader, a firm may exploit as well as take advantage and aims for being a low cost producer in the industry. A firm who is said to have adopted a differentiation strategy seeks to be unique in the industry by offering products and services which are highly valued by its customers. Whereas, a firm adopts focus strategy, tailors its strategy to serve a specific group in a narrower scope (Tanwar, 2013).

FIGURE 2 : Michael Porter's Generic Model



Source: Porter (1985)

Porter (1985) argued that attractiveness of a firm and its' position in an industry forms the primary determinant of a firm's profitability. A firm which is optimally positioned has potential to achieve superior returns by leveraging its' strength to position itself in the industry. Porter (1985) has also argued that a firm will either be a cost leader, adopt a differentiation strategy or focus strategy, but not all at once as generic strategies are not necessarily compatible to each other. Companies that combine these generic strategies will likely to be stuck in the middle, whereby, customers will find more value

in the firm's competitors with more defined position in the industry. Therefore, a firm that needs to succeed must achieve at least one of these strategies. A firm can succeed with multiple strategies by creating a separate strategy in different business units. By adopting a separate strategy in different business segments, different policies and cultures, organization is believed to be able to avoid "stuck in the middle".

FIGURE 3: Generic Business Strategy



Source: *Strategy and Competitive Advantage in Banking Business Technology (2014)*

Differentiation Strategy

Cost leadership and differentiation strategies seek competitiveness in a broader range of market or industry segments. Whereas, cost focus strategy and differentiation focus are adopted in a smaller market or industry segments. Porter (1985) stated that, a low cost leader must find all sources of cost advantage without ignoring the sources of differentiation which means being a cost leader, a firm must succeed in gaining differentiation proximity or parity. Porter (1985) further states that cost leadership is suitable when a firm has economies of scale and possess the ability to further reduce its' cost to experience a curve effect.

Differentiation strategy develops a unique product or service that offers values to the customers that is not price sensitive, less competitive market segments, and where customer perceives these products and services to be better or unique from the competitors. Customer's need and demands must be accurately defined, valued and delivered. A firm may

differentiate itself from its competitors through unique product features, establishing brand image, exclusive product features, product line and technology. In a highly competitive market such as banking industry where products are highly identical and with nearly the same price, brand image will be the shortest route to differentiation, product features and customer service (Auka, 2014). Auka, (2014) further stated that implementing differentiation strategy requires overall consideration in an organizational structure, involvement of management decision and controls, and implementation of cost leadership strategies. These implementation arrangements and tools should not only fit, but also include enforcement of strategies (Auka, 2014).

Differentiation strategy also provides a firm the ability to reduce five threats of rivalry, threats of entry, threats of suppliers and threats of buyers, substitutes, besides creating value as well as the ability for firm to charge a premium price.

Cost Leadership

Cost leadership means offering a lower price to customers compared to its' competitors with a similar product or service. Cost leadership allows companies to operate efficiently, become an effective price leader, undermining its competitors and gaining a growth advantage in the industry through a successful price war. Besides using cost leadership strategy to achieve competitive advantage in a particular industry, a firm can also improve its product and services by offering value leadership strategy to gain customer satisfaction, though this may require a higher cost from the customers, a firm still able to attain high margin (Porter 1980). A firm with a successful cost leadership strategy derives its cost advantage from multiple sources within the value chain and frequently configuring its cost structure, it is able to create a sustainable cost advantage.

Focus Strategy

The focus strategy aims at attending to specific niche which requires specially customised features and prices. Porter (1985) proposed this strategy of penetrating into a niche market segment by either focusing on differentiation on products, services or on costs. Focus strategy aims at achieving competitive advantage in selected segments but not overall. Focus strategy takes advantage of competitors who may not be meeting customer specific expectation in the segment, thus opens the possibility of differentiation focus. If competitors have a broader target, this may lead to a higher cost due to over performing in meeting customer needs. However, this may open an opportunity for cost focus.

A focus strategy takes advantage of sub-optimization where competitors may be under-performing in meeting special customer needs in the segment. If competitors have broad targets they might be over-performing in meeting customer needs in the segment, this leads to higher costs than necessary

for serving the segment. This opens up the opportunity for a cost focused.

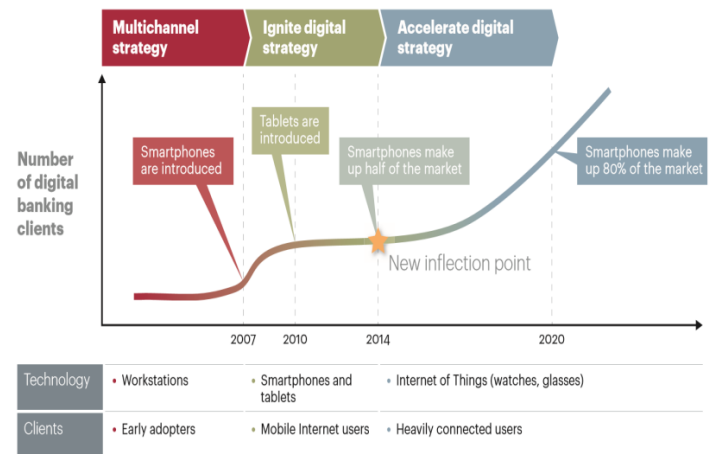
III. METHODOLOGY

This paper will be a conceptual study based on literature reviews. For the purpose of this study, the official website of few selected banks in Malaysia was selected, namely, Maybank, CIMB Bank and RHB Bank were being analyzed to understand products and services that are currently available within the respective bank's virtual banking platform. This study also looks into previous studies being done by previous researchers with regards to the future of virtual banking and the impact of technology evolution in virtual banking settings. This study will then explore the effect of Porter's generic competitive strategies in Malaysian local bank's competitive environment to how competitive advantage is attainable by understanding Porter's generic competitive advantage and its profound contribution in innovation and revolution in virtual banking. Porter (1998) suggested that, investment decision does not only make it difficult to forecast certainty in an equilibrium setting of an industry, but, industries may evolve using a different path, at different speeds depending on these decisions.

IV. FINDINGS

Maybank, RHB Bank and CIMB Bank have begun their virtual banking journey years ago, yet, these banks are still facing rapid changes. Revolution strategy, therefore needs to be in place to address customers' banking needs. Perhaps, the most important step, however, is for Maybank, RHB Bank and CIMB Bank to acquire a drastic breakthrough of how banking staff should respond to customers' need. Adopting Porter's focused differentiation strategy allows banks be conscious about personalizing customers' needs to gain market share faster in the banking industry. Understanding the banks' organization create significant obstacles to new banking solutions for its customers. Therefore, most importantly is for banks to look into its own bank's internal setting, changing organizational beliefs and existing habits exclusively to facilitate customers' needs and to successfully drive and evolves in innovation.

FIGURE 4: Banks Acceleration of Digital Banking Strategies



Source: A.T Kearney Analysis (2014)

Virtual banking is no longer a new development. A survey conducted by A.T. Kearney (2014) found that smartphones will make up 80% of the market in 2020. In Latin America as an example, mobile transactions have overtaken volume across all other channels, whereas in Europe, clients have more contacts through mobile than on a computer. Smartphones and digital payment evolutions offered by non-financial institutions can no longer be ignored. In the case of Malaysian Local banks, which have been on the digital journey platform for the past years back, the adoption rate is just halfway through. The global pick up pace and spread of smartphones, Internet of Things which will greatly evolve customers' behavior and thus, will compel Malaysian local banks to look through its virtual banking offerings, a breakthrough is therefore inevitable.

FIGURE 5: Mobile Banking Penetration Rate in Malaysia

	Internet Banking				Mobile Banking			
	million	Number of Subscribers		Penetration to population (%)	'000	Number of subscribers	Penetration rate (%)	
	Total	Individual	Corporate		To population		To mobile subscribers	To population
2005	2.6	2.5	0.1	9.8	2005	127.6	0.5	0.7
2006	3.2	3.2	0.0	12.0	2006	246.7	0.9	1.3
2007	4.6	4.5	0.1	16.9	2007	367.6	1.4	1.6
2008	6.2	6.1	0.1	22.5	2008	574.6	2.1	2.1
2009	8.1	8.0	0.2	28.9	2009	675.0	2.4	2.2
2010	9.8	9.6	0.2	34.4	2010	898.5	3.1	2.6
2011	11.9	11.6	0.2	40.9	2011	1,560.3	5.3	4.3
2012	13.7	13.4	0.2	46.4	2012	2,446.2	8.2	5.9
2013	15.5	15.2	0.3	51.9	2013	4,378.8	14.6	10.2
2014	17.6	17.3	0.3	58.2	2014	5,639.2	18.6	12.9
Mar-15	18.2	17.8	0.3	60.0	Mar-15	6,158.6	20.4	14.1

Source: Balance of Payment (Bank Negara Malaysia Report, 2015)

Bank Negara Malaysia report (2015) shows the increase in growth of adoption rate in internet banking and mobile banking in Malaysia from 2005 to Mar 2015. FIGURE 5 shows a penetration rate of less than 20% of the total mobile or internet subscriber. With the spread of mobile banking which is forming

a new rule for retail banks in Malaysia as banks seek to meet customers' expectation, the digital banking strategy may need to incorporate ;

1. Visual, easy and smart to use interfaces services.
2. To consequently cultivate and develop the emotional relationship with their customers to be "always connected" through various channels.
3. Secured and trusted platform for customers.
4. Constantly innovate and keeping pace with latest technologies.

Revolution of virtual banking and its implementation in Malaysian local banks and adopting Porter's differentiation focus strategy will anchor 3 dimensions; open innovation, client centricity, and organizational flexibility.

1. Openness to Innovation, will require a mix of digital and marketing teams to produce a concrete innovation that is ready for customer use. A combination and close connection of internal and external know-how market realities with lead to a valuable innovation and revolution.
2. Client centricity focuses on the customers' experience and in-depth examination of the role of a branch. Three success factors to be considered; be attentive and pragmatic to customers' expectation, be ready and creative to enhance customer experience in innovative banking solutions by referring to Porter's focused strategy and to rethink the role of branches. Changing the role of branches may change the habits, beliefs, incentives and experience of bank staff to adapt to cultural changes, acquire new knowledge and skill to the newly digitized customers.
3. Organizational flexibility is crucial for banks. With the technology proliferation and the crucial need for faster time to market for new service, fundamentally renowned IT platform is needed; where it is able integrate external cloud services with bank's front end IT. Therefore, an overall change in banks cultural setting need to embrace the latest technology, emphasize and drive mind set which is focused on customer solution.

The future of virtual banking experience will need to lead customers to a new paradigm in Malaysia. Banking products and services delivery model need to integrate with internal as well as external forces and the integration between employees, IT personnel, customers, suppliers can no longer be ignored. By applying Porter's 5 forces competitive strategies and Porter's generic competitive strategy, will provide a clearer view of strategies most suitable for different market segments and different customer needs in Malaysia. Porter (1985) stated that

generic competitive strategies could not be implemented simultaneously in a same market. However, implementing different strategy in different market settings by a single bank will create competitive strategy. Example, adopting a different model of differentiation strategy in different markets in Malaysia such as personalized product of service to different individual will help banks to penetrate markets, gain market shares compared to its competitors where these customers' who are not reachable by competitors.

Standard Chartered as an example, had rolled out Retail Workbench in countries such as Korea, India, China, Bangladesh, Malaysia, Singapore, the UAE, Kenya, Nigeria and Pakistan. Retail Workbench is a form of "bank in iPad" sales and service tools which is integrated with the banks' back-end infrastructure. This enables bank staff to access customer's information and meet customers anytime and anywhere to open an account, perform a transaction or approve a loan completely paperless, fast and simple (Global Finance 2016).Korea innovation on "Touch Login Biometric Technology" which was introduced in Singapore early 2016 will expect to be able to reach out to 5.5 million clients in over 16 markets in Asia, Middle East and Africa by the end of 2016 (Hines, 2016). Standard Chartered's example of differentiation focus strategy has taken it a step ahead compared to its' competitors in terms of innovation and time to market and has evolved into brands preferred by customers for financial solution.

Curry (2016) stated that, Asia's is an emerging market with great potential and it is an important destination in driving capital inflows from other emerging markets and mature markets due to its massive growth in the recent years but requires extensive automation and new services. Being part of Asia's emerging market, Malaysian local banks need to therefore learn a new approach in meeting customers' changing needs while customizing and segmenting by customer's sophistication, looking into bank's operating strength, capability and the customer's preferences will boost customers' experience, thus therefore improves margin and profitability by identifying and organizing different cluster within them. Malaysian local banks need to organize its' products and services around by a clear understanding of what customers really want rather than assuming what customers really want. Customers want a simple, secure, efficient, invest their funds with surety and certainty and these has to move with speed, watertight solutions using new technological environment with more opportunities in subverting transactions.

V. CONCLUSION

Maybank, RHB Bank and CIMB Banks have implemented virtual banking solution. However, with the low internet and mobile banking adoption rate in Malaysia (Bank Negara

Malaysia, 2015), revolution and breakthrough are essential for these banks to be competitive with foreign banks in Malaysia and in developed countries.

The purpose of the current study was to assist the authors in finding a revolutionary breakthrough in virtual banking innovation by assessing Porter's generic competitive strategies, combining it with various studies on digital innovations with an objective to identify the initiatives for Malaysian banks towards sustainability and growth. Economic influence, business cycle, the nature of banking industry and the bank's own manifestation affects the profitability of banking industries. By understanding the bank's competitive forces and underlying causes, it will assist the bank to reveal its competencies, which in turn will provide a framework for banks to anticipate in competition, meeting customers' needs and achieve customer satisfaction.

Maybank, RHB Bank and CIMB Bank are among three largest bank in Malaysia which have been taken for the purpose of this study and the findings to emerge from this study is that these banks need to acquire a drastic breakthrough of how banking staff should respond to customers' need. Though virtual banking is no longer new in Malaysia, the adoption rate remains low with a penetration rate of less than 20% of total mobile or internet subscriber as reported by Bank Negara Malaysia in 2015. Customers need trusted, personalized, tailored services with most reasonable prices, digitally simplified processes and secured banking platform to perform their banking transactions. The findings in this study enhances our understanding of Porter's focused strategy, in general, allows banks to be conscious about customers' needs by first looking into the bank's own organizational settings, its' competencies and strength, and, the overall demographic settings. In addition, banks need to change its' own internal settings, organizational beliefs exclusively to successfully facilitate customers' needs and evolves in innovation. Virtual banking revolution in Malaysia needs to incorporate strategies which are visual, easy with smart use of interfaced services, consequently, develop the emotional relationship with customers and enhanced with secured and trusted platform.

Finally, a number of important limitations in this study need to be considered. The current study was limited to, study of previous literature and banking reports. Conceptual framework and where statistical analysis confirming this theory is yet to be done. More broadly, further studies need to be carried out to confirm the significant relationship between Porter's generic competitive strategies in contribution to banks' competitiveness in forming its strategy to achieve breakthrough in virtual banking innovation. In the new world of customer centric, application has to be able to communicate with each other, embeds with integrated, end-to-end solution. Applying

Porter's generic competitive strategy by understanding what customers really want rather than assuming what the customer really needs, clustering around customer segmentation along with an integrated innovative digital experience will create a breakthrough in virtual banking solution among local banks in Malaysia.

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